

Special Issue – Volume 6 2013 Faculty of Fine and Applied Arts Chulalongkorn University

Journal of Urban Culture Research

### Journal of Urban Culture Research

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This publication is a non-profit educational research journal not for sale.



Published jointly by Chulalongkorn University, Thailand and Osaka City University, Japan

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## Editorial A Message from the Editor

Bussakorn Binson<sup>+</sup> Editor in Chief

Urban life can be hazardous to ones physical and mental health in a multitude of ways. It is a way of life that tends to induce stress from all angles whether it be physically from pollution, noise induced sleep deprivation, or long tangled commutes layered with the emotional obligation of caring for children or dependent elders that push out and away ones periodic rejuvenating experiences.

Currently, the contemporary material culture appears to be popular, but it tends to make an unsettled bed of peace in the human mind with its rapid pace of serial and never-ending change. Yet with the arts and music being creative pathways in and out from ones soul that taps ones imaginative essence along the way, it reaches beyond into others through the sharing and sparking of mirror neurons. The arts contributes to the establishment of an easy, non-verbal rapport or at least builds a connecting curiosity not easy achieved with other modalities.

Art creators can project and express their emotions and messages through artmaking that can provide an enhanced secondary pathway to the verbal. The music and creative arts therapy processes focuses on dealing with the creative art activity as being therapeutic in and of itself, or in the psychotherapeutic transference between a therapist and their client during the art creation event.

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This JUCR special issue titled Creative Arts Therapy – Music & Medicine is being published to commemorate the success of two important conferences held in Bangkok in 2012. It began in late June with the First ASEAN Music and Creative Arts Therapy Summit followed shortly by the 2nd International Association for Music and Medicine Conference during the first week of July.

The conferences themselves was made possible through the generous support of the Chulalongkorn University's 100 Year Anniversary fund and the University's Faculty of Fine and Applied Arts in conjunction with the Office of Art and Culture along with the International Association for Music and Medicine, Thailand's Ministry of Public Health, and University of Haifa, Israel. The latter was instrumental in organizing and staffing the 1st ASEAN Music & Creative Arts Therapy Summit that was held from June 27 to July 2, 2012 at Chulalongkorn University's Arts & Cultural Building. The 2nd International Association for Music and Medicine Conference was held on campus in the Mahachulalongkorn building from the 3rd to the 5th of July.

This JUCR special issue focuses on therapeutic and creative use of arts and music along with the use of music as medicine. The authors of this issue are experts in using music and art to achieve positive client-orientated goals and objectives. This volume consists of the descriptions of supervision in music therapy teams and expands on the definition of music and medicine. It also includes the unique therapeutic use of the One to Five Piano method as created by a long established Thai pianist. Moreover the reader can explore the development of an integrative approach to the application of music therapy in a medical setting from The Louis Armstrong Center for Music & Medicine. This includes the use music therapy with inpatients awaiting a heart transplant and the use of music in cancer care to address the patient's stress and pain. Other articles include the blending of music instruction into music therapy and several others. The contributors in this issue hail from many different corners of the world and include the countries of Argentina, Austria, Israel, Thailand, Uruguay, and the USA.

Our goal with this issue is to create a new forum for exchanging information on all aspects of music and creative arts therapy and the use of music as medicine as an alternative pathway of care in today's urban society. Moreover with the formal study of music and art therapy being relatively new to ASEAN countries, I hope with the recent launch of these two recent conferences together with this special issue of JUCR that this region of world will experience further development and interest in this field in the years to come.

### President's Report Second International Association for Music & Medicine Conference Bangkok, Thailand

Jane Edwards<sup>+</sup> President of IAMM (Republic of Ireland)

Early in July we celebrated the much anticipated IAMM conference in Bangkok Thailand hosted by Chulalongkorn University. Eleven of our Founding Members were in attendance from seven countries of the world and nearly one hundred delegates joined us, travelling to Bangkok from throughout the globe. Every moment, from listening to the keynote speakers, engaging with the highly thoughtful and well researched papers and posters, to the social events was most enjoyable. It was a wonderful time of flourishing for IAMM as we met and planned our future steps.

There are many thanks due for the success of the conference; especially to Dr. Bussakorn Binson and her team at Chulalongkorn University, as well as to so many of the founding members who put such a huge personal effort, time and

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cost into attending to be with us. The keynote speakers, and the paper and poster presenters were magnificent.

Our first keynote on the opening evening by Professor Emeritus Poonpit Amatayakul from Thailand gave us a delightful overview of developments in treatment through sound of children with hearing impairment. Photos of giant ceremonial drums were a highlight, and the idea of using recordings of the low frequency sounds made by these drums were novel in their time, paving the way for research and practice interventions that have continued to show how music and medicine can be used together to develop treatment approaches.

Dave Tongs and Dave Willis prepared a keynote about their work with children in cancer treatment which was delivered by Dave Tongs. The presentation was a highlight of the conference bringing into view the way in which compassionate clinicians can use music sensitively to support children and families in life threatening situations. The commitment of the presenters to this work, and their personal sacrifice of time and effort is so worthy and commendable.

Dr. Helen Shoemark presented a keynote on her internationally acclaimed work with babies receiving medical care in a hospital. Her research shows the level of engagement possible by parents, even those who say 'I can't sing', and the inspiring outcomes when music therapy is used to support parents to read and understand their baby's communication cues.



Figure 1. Conference venue at Chulalongkorn University in Central Bangkok.

Papers by Founding Members of IAMM were presented by Dr. Clare O'Callaghan, Dr. Sumathy Sundar, Dr. Joanne Loewy, Dr. Cheryl Dileo, Dr. Suzanne Hanser, Dr. Patravoot Vatanasapt, Dr. Fred Schwartz, and myself among others. Three prizes were awarded for posters and papers. The SAGE paper prize winner was IAMM Founding Member Dr. Bussakorn Binson of Chulalongkorn University. The sponsored poster prize winners were Dr. Patsy Tan and Christal Chiang from Singapore General Hospital. The prize is sponsored by the Music & Health Research Group at the University of Limerick www.irishworldacademy.ie/ postraduate-programmes/ma-music-therapy/music-health-research-group/. The peer poster prize was awarded to Trish Dearn and Dr. Helen Shoemark who collaborated on a poster presentation of study of music therapy work in NICU.



Figures 2 and 3. Left image: SAGE Best Paper Award. From left to right, IAMM President Jane Edwards, Bussakorn Binson (recipient), Joanne Loewy, Ralph Spintge, and Patravoot Vatanasapt. Right Image: SAGE Best Poster Award. From left to right, Jane Edwards, Thomas Stegemann with shared receipents Patsy Tan and Christal Chiang.

To all of our members who attended the conference, thank you! We loved meeting up with you again, and having the chance to share and learn together. Please let us know if there is anything more we can do to help you enjoy your membership of IAMM.

Sincerely, Professor Jane Edwards October 2012 iamminfo@gmail.com



Figure 4. Chulalongkorn University's President Professor Pirom Kamolratanakul, MD. delivering the opening address.



Figure 5. Study tour at the Thai Red Cross Swangkaniwas Rehabilitation Center.



Figure 6. Most of the participants with the founding members of IAMM in front row.

### Journal Policy

#### About JUCR

The Journal of Urban Culture Research is an international, online, peer-reviewed journal published annually by the Faculty of Fine and Applied Arts of Thailand's Chulalongkorn University in conjunction with the Urban Research Plaza of Osaka City University, Japan.

#### The Aims of JUCR

This Journal aims at establishing a broad interdisciplinary platform for studies of cultural creativity and the arts. It embraces all areas whether it is visual arts, creative arts, music, dance, theater or urban studies related to creative expression.

Additionally the Journal has the objective of stimulating both the theory and practice of fine and applied arts in response to social challenges and environmental issues as well as calling for solutions across the creative realms. Moreover, the Journal supports advocacy processes, improvements in practices, and encourages supportive public policy-making related to cultural resources.

#### **Review Process**

1. JUCR promotes and encourages the exchange of knowledge in the field of fine and applied arts among scholars worldwide. Contributions may be research articles, reports of empirical studies, reviews of films, concerts, dances, and art exhibitions. Academic papers and book reviews are also acceptable. Articles are typically only considered for publication in JUCR with the mutual understanding that they have not been published in English elsewhere and are not currently under consideration by any other English language journal(s). Occasionally, noteworthy articles worthy of a broader audience that JUCR provides, will be reprinted. Main articles are assessed and peer reviewed by specialists in their relevant fields. Furthermore to be accepted for publication, they must also receive the approval of the editorial board.

2. To further encourage and be supportive of the large diverse pool of authors whose English is their second language, JUCR employs a 3-stage review process. The first is a double-blind review comprised of 2-3 international reviewers experienced with non-native English writers. This is then followed by a non-blind review. Thirdly, a participative peer review will, if needed, be conducted to support the selection process.

3. All articles published in the journal will have been fully peer-reviewed by two, and in some cases, three reviewers. Submissions that are out of the scope of the journal or are of an unacceptably low standard of presentation will not be reviewed. Submitted articles will generally be reviewed by two experts with the aim of reaching an initial decision within a two-month time frame.

4. The reviewers are identified by their solid record of publication as recommended by members of the editorial board. This is to assure the contributors of fair treatment. Nominations of potential reviewers will also be considered. Reviewers determine the quality, coherence, and relevancy of the submissions for the Editorial Board who makes a decision based on its merits. High relevancy submissions may be given greater prominence in the journal. The submissions will be categorized as follows:

- Accepted for publication as is.
- Accepted for publication with minor changes, no additional reviews necessary.
- Potentially acceptable for publication after substantial revision and additional reviews.
- Article is rejected.
- A notice of acceptance will be sent to submitting authors in a timely manner.

5. In cases where there is disagreement between the authors and reviewers, advice will be sought from the Editorial Board. It is the policy of the JUCR to allow a maximum of three revisions of any one manuscript. In all cases, the ultimate decision lies with the Editor-in-Chief after a full board consultation.

6. JUCR's referee policy treats the contents of articles under review as privileged information and will not be disclosed to others before publication. It is expected that no one with access to articles under review will make any inappropriate use of its contents.

7. The comments of the anonymous reviewers will be forwarded to authors upon request and automatically for articles needing revision so that it can serve as a guide. Note that revisions must be completed and resubmitted within the time frame specified. Late revised works may be rejected.

8. In general, material, which has been previously copyrighted, published, or accepted for publication elsewhere will not be considered for publication in the main section of JUCR.

9. The review process shall ensure that all authors have an equal opportunity for publication. The acceptance and scheduling of submissions for publication in the journal shall not be impeded by additional criteria or amendments to the procedures beyond those listed above.

10. The views expressed in articles published are the sole responsibility of the authors and not necessarily shared by the JUCR editors or Chulalongkorn University.

#### Submission Requirements

• It is desired that submissions address one relevant theme announced prior to each issue, but worthy contributions in the general arena are welcome from researchers and practitioners at all stages in their careers.

- Manuscripts should generally not exceed 7,000 words including the abstract and references. Tables, figures, and illustrative material are accepted only when necessary for support.
- Manuscripts need to use our template for submission. Please download from our website's submission guideline page. Details are described in the top half of the first page with sample text following. Documents not using the template will be returned for reformatting.
- Manuscripts should include all figures and tables numbered consecutively. Submissions need to conform to The Chicago Manual of Style. (www.chicagomanualofstyle.org). We recommend the use of a free online formatter for your references. See www.citefast.com.
- Each author should send with their manuscript an abstract of 150 words or less together with a submission form providing their biographical data along with a maximum of six keywords.
- All manuscripts submitted for consideration need to be accompanied by a completed and signed Manuscript Submission form found on our website.
- It is a condition of publication that the Journal assigns copyright or licenses the publication rights in their articles, including abstracts, to the authors.
- Authors should strive for maximum clarity of expression. This point cannot be overstated. Additionally, authors need to bear in mind that the purpose of publication is the disclosure and discussion of artistic knowledge and innovations that expands the realm of human creativity and experience.

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### Articles – Part One

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- 1 to 5 Piano Musical Medicine
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- Music & Medicine: The Development of an Integrative Approach to the Application of Music and Music Therapy in Medical Settings Joanne Loewy (USA)

# The Use of Creative Arts Therapies for Diagnostic and Therapeutic Purposes

Rachel Lev-Wiesel<sup>+</sup> Hod Orkibi<sup>++</sup> and Dita Federman<sup>+++</sup> (Israel)

#### Abstract

This paper introduces the growing and developing field of creative arts therapies. The authors briefly highlight the common and distinctive characteristics of each specialization, including art therapy, dance movement therapy, music therapy, dramatherapy, and psychodrama. Then, current research is reviewed and a clinical case illustration is provided to clarify and demonstrate the use of creative arts therapies for diagnostic and therapeutic purposes. Finally, the authors describe the Graduate School of Creative Arts Therapies of the University of Haifa in Israel, the unique international masters program and their collaborative academic and research endeavors with partners around the world.

Keywords: Creative Arts Therapies; Graduate Training; Sexual Abuse; Trauma

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#### Introduction

Creative arts therapies (CAT) are healthcare professions that use the creative and expressive process of art-making to improve and enhance the physical, mental, emotional, and social well-being of individuals of all ages. These professions include art therapy, music therapy, dance movement therapy, drama therapy, and psychodrama (Brooke, 2006; Jones, 2005; Karkou & Sanderson, 2006; Malchiodi, 2005). Art therapy is a form of psychotherapy that uses art media as its primary mode of communication - including paint, chalk, crayons, and sculpture - and it is especially valuable for clients who have difficulties expressing themselves verbally. In music therapy, treatments may include creating, singing, listening to and/or moving to music in order to strengthen clients' abilities. Similar to art therapy, music therapy also provides alternative ways of communication for individuals who find it difficult to verbally express themselves. Dance movement therapy is founded on the belief that the body and mind are an interrelated continuum. Through the vehicle of movement and dance, the client can creatively explore and enhance emotional, cognitive, physical and social integration. Dramatherapy is the intentional use of theatrical techniques (such as roleplay, theatre games, mime, puppetry, voice work, myth, ritual, storytelling and other improvisational techniques) to facilitate creativity, imagination, learning, insight and personal growth. In a nutshell, whereas in dramatherapy clients typically enact dramatically "distanced" roles and situations (namely, fictional or imaginary), clients in psychodrama typically enact themselves in various life situations (for a comparison between the two methods see Kedem-Tahar & Felix-Kellermann, 1996). Psychodrama, therefore, employs guided dramatic action to examine "real life" problems or issues raised by an individual or a group. Using experiential action methods, sociometry, role-play, and group dynamics, psychodrama facilitates insight, personal growth, and integration on cognitive, affective, and behavioral levels.

Although CAT sessions can be enjoyable, they are not recreational activities or art lessons and clients do not need to have any previous experience or expertise in art. The CAT employ creativity and imagination (that has been found to contribute to coping and problem solving), creation and playfulness (that are associated with growth and vitality), and holism (integration between mind and body) (Knill, Levine, & Levine, 2005; Levine & Levine, 1999; McNiff, 2004). The use of different art mediums, whether drawings or drama, movement or music, enables clients to better express their emotions and feelings, inner difficulties, bypass dissociative mechanisms, strengthen dialogue with the external and internal world, and even encourages verbalization. The use of arts within psychotherapy bridges verbal barriers and promotes experiential insights because it involves the non-linguistic right hemisphere of the brain (Winner, 1982). The creative and expressive process of art making enables the exploration of experiences that are difficult to verbally express for various reasons such as differences in language and culture (Campbell, 1999; Dokter, 1998), communication impairments with clients on the autistic spectrum (Evans & Dubowski, 2001; O'Doherty, 1989), a history of trauma (Bannister, 2003; Eaton, Doherty, & Widrick, 2007; Lev-Wiesel, 2005), old age and illness such as Alzheimer (Harrow, 2005), or emotional difficulties: behavioral and interpersonal (Hamamci, 2006; Orkibi, 2010). Creative arts therapists work in a variety

of settings such as hospitals, educational institutions, community mental health facilities, prisons, hospices, day-care centers, and private practices. In Israel, the Creative and Expressive Arts Therapies Association was founded in 1971, and the Ministry of Health has recognized the CAT as a paramedical profession since 1988. These days, the profession of Creative Arts Therapists around the world is facing the challenge of establishing itself as an evidence-based practice; namely, a practice based on a solid body of empirical knowledge, derived from the systematic and rigorous collection of data, which provides evidence supporting the use of specific CAT interventions (see Gilroy, 1996; 2006).

#### Creative Arts Therapies Research

The field of research in CAT is relatively limited. Most of the studies conducted up until now focused on the impact of CAT in promoting wellbeing and growth in different populations and environments. Our current research focuses on utilizing CAT for diagnostics and therapeutic purposes. Some of the topics our researchers (e.g., Lev-Wiesel, 1998) have examined are indicators of the phenomenon of childhood sexual abuse within self-figure drawings of children and adults who were sexually abused under the age of 14 (see Figure 1). Another example is a study that found the indicators of dissociative identity disorder in self-figure drawing of people who were diagnosed with this disorder (e.g., Lev-Wiesel, 2000; see Figure 2). Another line of evidence-based research focuses on sexually abused children who need to testify in court yet tend to dissociate. Therefore their testimony hinders their case. The theme of a drawing they are asked to draw in front of the juvenile court is "draw what you preferred never had happened." This was found to bypass the dissociation during testimony (see Figure 3).



Figure 1. A 24-year old female who was sexually abused by her father. The indicators: hollowed eyes, no hands, no lower body, and doubled chin were found to indicate incest.



Figure 2. Eight years old female survivor of CSA, diagnosed with DID. Three figures within the selffigure drawing: two figures leaning on the vertical line, while the third figure (head and hair) holds the whole construct together.



Figure 3. Nine years old boy who was sexually abused by his father drew what "he preferred never had happened."

#### An Illustrated Case Study

Sue, a teacher, aged 36 and the mother of four children, came to therapy because she felt depressed for no real reason (according to her) (was first published in Arts In Psychotherapy, Lev-Wiesel, 1998). Sue was the oldest of three sisters in her family of origin. Her parents were Holocaust survivors. She remembered being physically beaten by both her parents. When asked to specify her bad and good memories from childhood, she refused, rationalizing it by forgetfulness: "I don't remember. It was a long time ago." She complained of enduring a strange unresolved fear of entering the bathroom. She could not take a shower with the door closed. Her husband and children knew her fear and accompanied her to the bathroom for years. Figures 4 through 6 are illustrations of a therapeutic process (thematic drawings) in a 36-years female survivors of sexual abuse. From self-figure drawings, a Kinetic Family Drawings at the age of five, the perpetrator, to growth and healing.

In session one: Sue was asked to draw a picture of herself (Figure 4, left drawing). Sue's view: "This person can't move, she is stuck . . . There are a lot of thoughts that should not be let out . . . I hold something, it's funny, I can't decide if it helps me or not." Then during session two: Sue was asked to draw a scene at home when she was 5 years old (Figure 4, right drawing). Sue's view: "The girl loves her doll... it's the only thing that belongs to her... my father frightens me... mother doesn't help... Why am I wearing sunglasses? I never had any." Figure 5, Sue's view: "That's what I see a monster it's my father... He was raping me in the shower. No one was at home... When I cried later, mom said I was putting the whole family at risk and that I should suffer quietly for he had suffered more during the Holocaust... " Last session (7 months later): Sue was asked to draw herself (Figure 6). Sue's view: "I am much stronger... you see the arrows I have, I can defend myself ... I can talk about what I went through... I know my parents are responsible and should be blamed for what they did... I want to help other girls who are trapped in this hell."



Figure 4. Thematic drawings of the therapeutic process – early stage. Initial Self-portrait left and on the right, a family scene at age 5.



Figure 5. Thematic drawing of the perpetrator – the subject's father.



Figure 6. Self-portrait during the last session 7 months later showing strength and arrows for defense.

Another example of research in CAT is the use of dance and movement therapy (DMT) in populations with chronic physical and mental illnesses (Sherry Goodill, 2006). The Cochrane review has found evidence for the effectiveness of DMT with Schizophrenia and with Depression (Koch, Morlinghous, & Fuchs, 2007; Akandere, & Demir, 2011). A study that explored the use of DMT with revealed that DMT improves verbal abilities of Alzheimer patients (Dayanim, 2009). DMT allowed for an increase in empathy based on the mirror neurons (Federman, 2011). It can be used to enhance a deeper understanding of the emotional world of self and the other, thus it can be used by physicians whose main task is the remedy of their clients.

#### The Graduate School of Creative Arts Therapies

The University of Haifa is situated at the top of the Carmel Mountains in northern Israel, amidst the Carmel National Forest, with breathtaking views of the Mediterranean Sea. It was established in 1963 under the joint auspices of the Hebrew University of Jerusalem and the Haifa Municipality. In 1972 it gained academic accreditation from the Council for Higher Education as a separate institution, and today it is a fully accredited university under the auspices of Israel's Ministry of Education and the Israeli Council for Higher Education. The University is recognized internationally as an approved site for study abroad, and academic credits earned are transferable to home institutions to be applied toward degree completion. The University of Haifa is also recognized by the UNESCO-based International Association of Universities.

The Graduate School of Creative Arts Therapies (GSCAT) was established in October 2008 as part of the Faculty of Social Welfare and Health Sciences at the University of Haifa. The School offers the only program in Israel that awards a master's degree in Creative Arts Therapies with the following five specialization tracks: Art therapy, dance movement therapy, music therapy, dramatherapy, and psychodrama. Since its establishment, the School has become one of the most popular at the University, with over 400 students currently enrolled.

#### a. International M.A. Programs

The GSCAT's international master's degree in Art Therapy is a full-time, oneyear program designed to prepare professionals to practice in this new and growing field of therapy (http://cat.haifa.ac.il/). The program takes place over three consecutive semesters, from October until September. The language of instruction is English. Students complete their academic coursework at the university during the fall and spring semesters. During the summer semester, students participate in a clinical practicum and receive individual and group supervision. Students from countries with which the University of Haifa has an agreement may request to complete their practicum experiences in their country of origin under the supervision of a therapist/supervisor who will be preapproved by the GSCAT. Upon successful completion of all academic requirements and field training hours, students are awarded a master of arts in Creative Arts Therapies with a specialization in Art Therapy. The clinical experience of trained practitioners, who have worked for some years in art therapy, may be taken into account on a case-by-case basis. We are currently exploring the possibility of opening a Low Residency program designed to suit working individuals and/or established professionals whose practical circumstances make traditional resident program and relocation unworkable. This program my consist of intensive residencies over the course of two summers, online modules via the University's online environment, and practicum experience (filed training) in student home communities under the face-to-face supervision of a pre-approved supervisor.

#### b. International Research and Academic Collaborations

We believe that working together globally is the best way to advance the CAT field. Professors and lecturers at the School have professional relationships with

professors and healthcare practitioners in other countries, including the United States, the United Kingdom, Germany, Spain, Italy, Greece, Singapore, Vietnam, India, China, and Thailand. These relationships lead to research collaborations as well as lecturer and student exchanges.

The School has an electronic journal, Academic Journal of Creative Arts Therapies (http://ajcat.haifa.ac.il/), and findings from the Creative Arts Therapies Research Center (http://catrc.haifa.ac.il/), as well as cutting-edge features submitted by international therapists, are published in the journal. For example, in the National level in Israel, Dr. Hod Orkibi conduct a research with the National Program for Children and Youth at Risk on the contribution of future-oriented positive psychodrama to the positive future and subjective well-being of adolescents atrisk, funded by Alony-Hetz Properties and Investments Ltd. At the international level, Prof. Rachel Lev-Wiesel and Dr. Michal Bat-Or collaborate with Prof. Elias Kourkoutas, Prof. Akis Simos, and Andriani Papadaiki from the University of Crete on the validation of the test "Person Picking an Apple from a Tree" in young children. Anotherinternational project is that of Dr. Cochavit Elefant who collaborates with Prof. Christian Gold from the University of Bergen, Norway on an international randomized controlled trial on autism and music therapy. Also in Music Therapy, Dr. Donna Abecasis collaborates with Prof. Javier Corbolán from the University of Murcia, Spain, in the validation of creativity measure for school children.

#### c. International Summits

Moreover, the GSCAT organizes summits for healthcare professionals from around the world. Some of the summits are held on University of Haifa campus, while others are held outside of Israel. These summits focus on therapeutic techniques in each of the specialization modalities as well as innovative research. Participants enjoy a variety of presentations, workshops and discussion groups. In July 2011, the School held its first International Career Advancement Summit at the University of Haifa campus. The eight-day summit included 22 humanservice professionals from India, Thailand, Korea, Singapore, Hong Kong, and China. Participants were introduced to the art of teaching and practicing the CAT. Five days of the summit focused on different modality specializations through oral presentations, experiential workshops, and discussions that were conducted in English by the School's faculty members who are experts in the different modalities. The offerings included: Multi-Cultural Aspects of Art Therapy; Art-Based Assessments: A Picture is Worth a Thousand Words; Nine Core Processes in Drama Therapy; Dance Movement Therapy with Children; Music and the Mind; and Intermodal Expressive Arts Therapy. During the remaining three days, participants enjoyed an organized group sightseeing tour of Israel's unique sites, including Jerusalem, the Galilee, and the Bahá'í Gardens in Haifa and Akko.

Recently, five faculty members of the GSCAT conducted extensive series of workshops in the Asian Music and Creative Arts Therapy Summit held from 27 June through 2 July 2012 at Chulalongkorn University (CU) in Bangkok, Thailand. Our future mutual goal in collaboration with CU is to develop a similar CAT program at CU in conjunction with the GSCAT (joint MA degree and/or training programs), that will eventually become a CAT center for professionals for Thailand and its neighbors in East Asia.

#### Conclusion

As illustrated above, the field of CAT is growing and developing rapidly. As an interdisciplinary field it allows collaborations between practitioners from medical backgrounds, mental health backgrounds, scientific and humanities backgrounds for the benefit of people who struggle with day to day hardships and those who have experienced severe traumas whether physical or emotional. Arts are universal languages that overcome verbal barriers. As such, CAT can undoubtedly be use globally to also solve interpersonal (micro and macro) conflicts, and thus promote peace.

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# Creative Arts Therapy with Thailand's Mobile Arts Therapy Group

Bussakorn Binson<sup>+</sup> and Alan Kinear<sup>++</sup>

#### Abstract

This article describes the variety of therapeutic creative arts sessions conducted by the all volunteer Mobile Arts Therapy group (MAT) during Thailand's unrelenting flood crisis of 2011-12. The MAT group concentrated their efforts in the Bangkok region's flood relief centers and was comprised of students from Chulalongkorn University, Bangkok University, King Mongkut's Institute of Technology Ladkrabang, and Srinakarinwirot University as well as artists from the James H.W. Thomson Foundation. Additionally, as normal modes of communication, organization, and transportation were severely flood impaired, the social media tool *facebook* was recruited as the central communication medium for organizing the volunteers. The creative arts therapy activities included the drawing of facial expressions, mime, drama, and improvisation, 3D modeling, handicrafts, singing and the playing of musical instruments. The anecdotal feedback from session participants included a marked reduction in anxiety with an increase in a sense of communal belonging.

Keywords: Creative Arts Therapy, Art Therapy, Music Therapy, Flood Relief Centers, Thailand, Art for Survivors

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#### Introduction

This article focuses on the arts therapy activities during Thailand's massive flooding in 2011 where 62 out of 70 provinces were inundated and millions were affected. Many were displaced for weeks and others for over a month. This article describes the creative arts activities provided by Mobile Arts Therapy (MAT) group which was established in the early stages of the crisis on October 14, 2011 by Assoc. Prof. Dr. Bussakorn binson, Faculty of Fine and Applied Arts, Chulalongkorn University and Ms. Krittiya Kaweewong, a former PhD. student in Fine Arts program with support from the volunteer artists of James H. W. Thompson Foundation and the Chulalongkorn University Alumni Association. The group's activities took advantage of the online resource Facebook to coordinate relief center activities and it enabled more volunteers to become involved as well as reducing the time, staff, and effort traditional modes of communication would entail.

#### Defining Creative Arts Therapy

Creative Arts Therapy is an expanded form of art therapy, which includes drama, music, movement, together with 2D and 3D artistic expression as its primary mode of communication and may include a synthesis of more than one mode within a session. It is a process that combines internal and external experiences and instills them into a creative entity where both it and the process used are considered. It is a form of therapy where participants are encouraged to express and understand their emotions through artistic expression and through creative processes. There exists a three way interchange between the participant or group and the creation. It is held that one may reconcile emotional conflicts and foster self-awareness and personal growth through the creative process.



Figure 1. Author Bussakorn Binson making her way to the temple's flood relief center at Wat Jan in northern Bangkok. Images in this article are provided by Alan Kinear except where noted.<sup>1</sup>

Creative Arts Therapy can help people physically, visually and auditory (drama, visual arts and music) express emotions that they may not otherwise easily expressed through conversation. It assists by providing a pathway to share, externalize, ones feelings (creating a distance or a connection). In other words, Creative Arts Therapy can help regain a sense of control over ones emotions. Creative Arts Therapy is a process-orientated method.

The American Art Therapy Association's definition of art therapy adds the following details:

"Through creating art and reflecting on the art products and processes, people can increase awareness of self and others cope with symptoms, stress and traumatic experiences; enhance cognitive abilities; and enjoy the life-affirming pleasures of making art. ...It is based on the belief that the creative arts process involved in artistic self-expression helps people to resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, increase self-esteem and self-awareness, and achieve insight. Art therapy integrates the fields of human development, visual art (drawing, painting, sculpture, and other art forms), and the creative process with models of counseling and psychotherapy."

#### Shared Emotions Via Pantomime and Facial Card Drawings

The sessions were held in relief centers usually located in a temple's community building, schools or university sports centers. The participants were primarily children along with a few adults.

It begins with an activity ultilizing stylized facial cards cards that represent the range of human emotions. They were asked to think of their feelings when the flood hit and project and choose another card for how they want to be in the future. Next with the art materials provided they were asked to draw their own version of the two faces they had selected and personalize them as they wished.



Figure 2. The facial card activities at the Wat Jan flood relief center.<sup>1</sup>





Figure 3. Participants personalizing their selected facial cards.<sup>1</sup>

Then as a group sitting in a circle, each would describe from their drawing one of their faces/emotions and then the person next to them would do their best to act it out (like charades or pantomime) to share and externalize each ones feelings. It also creates a fun event for the others to see how each one tries to act out another's experience and feelings. So in a sense, this type of group work is both art and "drama" therapy.



Figure 4. The person to one's right would do their best to pantomime their feelings & experience.<sup>1</sup>

The second activity at the temple's flood relief center at Wat Jan was to have the group begin by sitting and contemplating what they would grab to save and take with them as the flood hit. There were many pictures of items placed in the center of the group for them to view and then choose from for example: pets, pictures of family members, phones, food, toys etc. Then individuals would share their reasons for choosing their selection. This have the participants consciously realize what is really important to them even though they have lost many things and no longer have a comfortable life at home.



Figure 5. Deciding what they would like to rescue from the floods.<sup>1</sup>



Figure 6. A flowchart diagram of the creative arts therapy intervention process.

Through these activities of expression and sharing of ones experiences the impact of negative emotions can be reduced through externalization and acknowledgment by others. The group activities brings people closer together and while we serve as facilitators and cannot reduce the water level or its impact ourselves, we can however, provide a pathway to reduce the intensity of their feelings via acknowledgment of their experiences as being true for them via externalization through artistic expression, sharing, and listening.

#### Shared Stories Via 3D Models and Clay

At the relief center in Bangkok's Chulalongkorn University's sports facility the Mobile Arts Therapy group offered another version of art therapy centered around 3 dimensional models and characters and objects free-modeled in plasticine clay. It was an opportunity for younger kids to burn off some energy while working together to figure out how to assemble the models and then create or portray their flood experience by building a scene with figures they create. Towards the end of the session kids had the opportunity to tell and share their story to the group.

#### Flood Story Telling Through Drama

Another session recruited art students from Chulalongkorn University to the flood relief center at the Songkanong School in the Sampran District where the

residents have been displaced for over 2 months by water over 1 meter deep. The activities began with a relaxation sequence of guided imagery while the children layed on mats in the breeze of the open shade. This was followed by selecting and personalizing the facial expression cards as described earlier. But next during the group sharing more than a dozen university students were on-hand to bring each story to life on stage. This was followed by volunteers with a partner or two to pantomime each of their personal flood experiences.



Figure 7. Scene creation with 3D models and clay followed by sharing personal experiences & stories.<sup>1</sup>



Figure 8. University students used three different colored fabrics to represent water-white, trees-green and brown-houses.<sup>1</sup>



Figure 9. Students take their turns with the acting.<sup>1</sup>

#### Cultural Curiosity - A New Pathway of Expression

The Mobile Art Therapy also visited the Banglen School's flood relief center which was home to 35 displaced families by the 1 meter-plus floods that persisted for over 2 months. These survivors were overwhelmed with loss and sadness, but an Indonesian volunteer decided to introduced them to the Indonesian angklung musical instrument and a modified Kecak Dance. The participants explored the new melodies of the Indonesian songs while taking comfort in the familiarity of the Thai ones.



Figure 10. Students with the Indonesian Angklung.<sup>1</sup>

The modified Kecak Dance utilized the Thai language while maitaining the Balinese Kecak style. The lyrics expressed the circumstances and experiences of the flood with the participants being divided into three groups. One sang "Nam ma" (Nam means water, ma means coming) while they acted out the coming of the water in a wave formation. The second group was chasing the water away while singing repeatedly "Nam Lod" (water go away). The last group sang (shouted) "Hang" (dry now) as loud as they could.

This dance activity allowed the community to expressed their feelings and hopes related to their flood experiences with the aim to provide participants an opportunity to release their anxiety and their feelings of being overwhelmed during these unfortunate circumstances. By asserting themselves through singing, shouting, and dancing, the participants reported a stronger feeling of togetherness and a renewed sense of power to continue on battling the flood waters. These music and dance activities brought forth a renewed sense of culture and belonging through the blending of Indonesian instruments and traditional Thai country music.

The participants after these dance and musical resprites described themselves as being more relaxed.

Ornate Lighted Floats for the Traditional Loi Krathong Evening Celebration Thais have a traditional holiday held during the full moon of the twelfth lunar month of the Thai calendar – which usually falls in November. During Loi Krathong people release candle-lit and decorated banana leaf arrangements to float down the river to bring them good luck, float away their transgressions, and to honor and thank the goddess of water. However, due to the severe and long lasting floods where mobility and the usual materials where nearly impossible to obtain the Mobile Arts Therapy group supplied and demonstrated what could be done with the materials that were on hand. Biodegradable items such as paper plates, colored paper, and bread rolls came to the fore.



Figure 11. Lighted Krathongs made out of bread rolls, colored paper and paper plates are set afloat during the Thai Loi Krathong celebration. Images by Niwat Manatpiyalert.<sup>1</sup>

#### Conclusion

The above creative arts therapy models of therapeutic activities were developed by the Mobile Arts Therapy group during Thailand's 2011-12 flood crisis for Bangkok's flood relief centers. The participants in general, reported a reduction of stress and anxiety as well as a stronger sense of community after taking part in the activities conducted by the MAT group. The children also expressed a reduction in fear regarding future floods and pleasure from the activities and the creative expression they embodied. It is hoped these new models can be further refined to best fit the needs and expectations of survivors of future flood crises as creative arts therapy opens a pathway for trauma surviors to begin verbalizing their experiences.

Additionally, even though most of the group's volunteers had attended the single Art Therapy course at Chulalongkorn University and were trained in ways to avoid focusing on anxiety and fears, there remains no formal higher education degree program and governmental certification in Thailand.

#### Acknowledgements

On behalf of the MAT group, the authors would like to extend a warm thank you to their creative art therapist associates from the University of Haifa who provided foundational models for this category of activities. We also like to acknowledge the great support from the Chulalongkorn University Alumni Association who immediately provided sponsorship within a few days of the beginning of the MAT group commencing its flood relief center sessions. Additionally, special thanks must be extended to all the volunteers of the MAT group who dedicated their time, creativity, and hearts in making all of these activities possible.

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#### Appendix

- Image and video gallery: Art Therapy at a Thai Temple Flood Relief Center Nov 20, 2011 Alan Kinear https://picasaweb.google.com/104177554472008433379/ArtTherapyAtAThaiTempleFloodReliefC enterNov202011?authuser=0&authkey=Gv1sRgCLCRjp3o75rGqgE&feat=directlink.
- Image and video gallery: Bangkok Floods Oct Dec 2011: Alan Kinear https://picasaweb.google.com/100250583234463673125/BangkokFloodsOctDec2011?authuser=0 &authkey=Gv1sRgCMO1vcjQjrr9DA&feat=directlink.
- "בלבש מיקחשמ". http://www.levgame.net. Note: Nooshsi Facial Emotions Cards by Tal Zaharin website is in Hebrew, use Google translate (accessed June 5, 2012).

#### Notes

1 Photography and video permission was received at each of these public venues congruent to current Thai regulations.



Friends at the Wat Jan flood relief center.<sup>1</sup>

# Supervision of a Music Therapy Team in Medicine

Diego Schapira<sup>+</sup> (Argentina)

#### Abstract

This paper discloses how supervision is conducted with a Music Therapy team, specialized in Music Therapy in Medicine. The team works at Rivadavia Hospital, a general acute care hospital, which is part of the public hospital network of the city of Buenos Aires (Argentina). It shows the different levels of supervision performed, and is illustrated with an example of how music therapists can elaborate the feelings caused by the daily work with pain and death.

Keywords: Music Therapy, Medicine, Supervision

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#### Introduction

This is the presentation of the modality of supervision of a Music Therapy team, which works at Rivadavia Hospital, in the city of Buenos Aires. Buenos Aires is the capital of Argentina, in South America. It has a population of fourteen million people.

Rivadavia Hospital is a Maternity and Acute Care Hospital, an old hospital founded in 1887 which offers free charge attention. The hospital population is mostly of low or middle class, living in the city and its periphery, and immigrants from neighboring countries (especially from Bolivia, Paraguay and Peru) who have been unable to regularize their residence.

This is an important data, since the music therapists need to go deeper within a multicultural musicality.

An excellent system of hospital residences and internships goes on within public health. Residences are a rented system of formation and postgraduate specialization for medical doctors and other health professionals including music therapists, which depend on the government of the city. Internships are a system of postgraduate training pro bono, with a workload of sixteen hours per week for four years, for various health professions including Music Therapy.

During these four years, music therapists have rotations in internal medicine both in men and women services, rheumatology, pediatrics, obstetrics, and neurosurgery, and they attend consultations on demand in the intensive care unit. They also receive lectures, and must make a research each year, for approval by the Department of Teaching and Research, which enables them to pass to the following year.



Figure 1. Rotations during Music Therapy Internship.

Newly-graduated music therapists have to work daily with situations of pain, suffering, fear, anxiety and death, to which additional aspects are added, such as difficult family situations -usually dysfunctional families- and hard social conditions. Also, when dealing with patients coming from other provinces or other countries, music therapists often have to help them overcome the isolation and disconnection from their environment. On the other hand, considering the positive aspects of their work, this contributes to the improvement and accompaniment of the patients' processes during hospitalization, and their key role of support to help them return to life outside the hospital. All this impacts on the music therapist, and keeps on generating effects in him/her that are often noticed only by accumulation.

#### About Supervision

The supervision space is essential. It is necessary to prevent burnout. Music therapists in the hospital settings are permanently exposed to difficult issues and extreme situations which inevitably cause some effect on them.

Supervision can be considered as a space in which those supervised may develop their full potential, choosing their own path as therapists, by checking with another professional all aspects associated with their practice.

This is the reason, among others, for which it is essential that music therapists do not consider supervision as optional, or as something that is only necessary at the beginning of their practice, and that they can do without as their professional experience increases. It is part of the work, and as such it should be considered to fall within the contracted working hours, as part of the investment required for any music therapist for a good professional performance.

Supervision is part of professional ethics, and it implies the acknowledgement of the huge responsibility of our task for us, for our patients, for the hospital, for the professional community and for society.



Figure 2. Ethical responsibility.

#### What is Supervised?

Considering that in music therapy processes there is dynamic overlapping, that require the help of another professional, supervision in hospital comprises three levels. The first one regards the way in which techniques and procedures are implemented. This is the most superficial level of supervision. The intermediate level involves reviewing two aspects. The first one is the appropriateness of the techniques and procedures used, depending on the analysis of the patients' therapeutic processes. The second one refers to establishing the therapeutic objectives and strategies, for each patient. This is extremely important, since we conceive a Music Therapy focused on the uniqueness of each patient, as a bio-psycho-socio-spiritual unit, with its history, its suffering, its specific social environment, and its own expressive-receptive modes.

The third level is the deepest, and involves reviewing both the transference aspects of the patient and the countertransferential aspects of music therapists.



#### Levels of Supervision

Figure 3. Levels of supervision.

From the Plurimodal Approach we consider the transference and its dynamics, and the way of working to depend on the type of treatment (focal or in process). For this reason, we consider the levels of work with transference described by K. Bruscia.

Some of the phrases cyclically mentioned in this type of supervision:

- "The only thing that has no solution is death"
- "It makes me think about my own death or my parents' death"
- "Pregnancy is not contagious"
- "Disease or death keeps on turning around my head"
- "I am afraid to go, to attend, and being unable to do anything"
- "Once again, I have the feeling that there are unfair deaths"

#### How do we Supervise?

This team is supervised in group, on Wednesdays, along two hours. Each week we work on the things that happened in one or two services, and, if necessary, we focus on a specific situation that occurred at some other service, which could not be postponed until the following week. The group dynamic enhances the effect of supervision, since the colleagues notice that there are common issues. Everyone's participation allows sharing and relieving the weight of the task to be reviewed. At the beginning of the activity, people who are going to be supervised read a report about the activities performed in their service, and comment on their feelings and ideas about what has occurred. Then, we move on to a brief group discussion, and from this point we work with the Plurimodal Approach techniques. We consider that one of the most effective ways of having insight on the things that happen to us at work is using our own tools with ourselves. That is why we use musical improvisations, different techniques with songs, edited music, and several receptive techniques.

#### A Little Example

In order to illustrate this dynamic of supervision, let's share one example: During a supervision of music therapists who are working in the male area of the internal medicine unit, they say they are very sad because one of their patients hospitalized for ten days died. At the same time, the music therapist working in the neurosurgery service tells that she was frightened and did not know how to act when the patient she was about to start working with, began having seizures. She only managed to call the nurses, and recounts having felt paralyzed.

The proposal was to develop some of their own ideas and feelings about death, creating a song focused on it. The rationale behind this proposal was not only processing and clarifying these ideas and feelings, but to connect them with the possibility of creating, of giving "life" to something, of putting into practice an activity that connected them to its most vital aspects.

They chose to recreate a verse of the song "The show must go on" by Queen, which, as many of you know, is the song that the band created as a farewell to its singer, Freddie Mercury, while he was still alive.

They took the first part of the song, and recreated it, in Spanish. The lyrics of Queen's song in English are:

"Empty spaces - what are we waiting for Abandoned places - I guess we know the score On and on Does anybody know what we are looking for

Another hero another mindless crime Behind the curtain in the pantomime Hold the line Does anybody want to take it anymore

The show must go on The show must go on Inside my heart is breaking My make-up may be flaking But my smile still stays on" The English version of Music Therapists recreation is:

Empty spaces - why are we here? Abandoned places – and what do I do? On and on, - Does anybody know what we are looking for? Another day, another session Another day, someone dies today Such a pain, - Does anybody want to take over?

No more pain! No more pain! I want everybody to live I know I can help But today I am sad No more pain! No more pain! I know how to help them And even if I am sad today I know I know how

#### Conclusion

As a conclusion, we can point out that supervision:

- Provides the opportunity of suitable practice
- Allows reviewing diagnosis
- Allows reviewing and formulating hypotheses and therapeutic strategies
- Enables the exploration of implemented resources
- Generates the possibility of analyzing music therapy transference
- Enables the analysis of the kind of music therapy countertransference the supervising professional has registered
- Enables to develop therapeutic strategies
- Facilitates interdisciplinary work
- Enables the possibility of confronting key issues in hospital work, such as limits on assistance, positioning facing pain, physical deterioration and death
- Allows reviewing the ways of being in the hospital aiming to prevent burn-out

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# Music Medicine and Music Therapy in Austria

Vera Brandes<sup>+</sup> Zahra Taghian<sup>++</sup> and Claudia Fischer<sup>+++</sup> (Austria)

#### Abstract

In Austria Music Therapy and Music Medicine are in the focus. It is the only European country having a law that governs the legal implications of music therapy occupation. There are several University programs offering education as music therapists. Fields of implication are various and interest in musical interventions for health care is increasing. This article describes the history of music therapy in Austria, as well as educational programs and research projects and gives examples of clinical applications of music e.g. in neonatology.

Keywords: Music Medicine, Music Therapy, Austria, Neonatology, Music Effect Research, Music Therapy Education

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#### Introduction

The use of the positive vibrational properties of music for the amelioration of physical and psychological health has a very long history which dates back to ancient Greece and beyond. It is most likely as old as humanity itself. Music may have even existed before language. According the Steven Mithen's hypothesis, the Neanderthals developed a peculiar proto-music/language that was holistic (not composed of segmented elements), musical (temporally controlled, rhythmic, and melodic), mimetic (utilizing sound symbolism and gesture), manipulative (influencing emotional states and hence behavior of oneself and others) and multi-modal (using both sound and movement), forming what Steven Mithen calls 'the 'Hmmmm' communication system, a 'prelinguistic musical mode of thought and action.'

The idea that languages are specialized forms of music may explain, at least in part, *why* music is so important that no civilization seem to exist without it. Beyond our mental perception and cognition of music, sounds influence the human body directly. Provided the music is carefully selected, music can offer a harmonious form of auditory stimulation which constitutes the easiest, perhaps the even most effective intervention to synchronize the subtle functions of our nervous system in order to improve the biological and mental states of human health.

#### Research

During the past 20 years significant advances have been made in terms of both research and practical implementation of music as an accompanying factor in the healing process.

'Through successful music experiences, patients can regain a sense of control, independence, and confidence. Music can be a medium of communication and a strategy for refocusing attention during painful procedures or long treatments, and a source of emotional support. Music is clinically recognized to influence biological responses such as heart rate, blood pressure, respiration rate, cardiac output, muscle tone, pupillary responses, skin responses, the immune system, and endorphin production. Music can entrain the body to calm or to accelerate depending on what type of music is used. Sedative music can lower anxiety, pain, tension and stress levels resulting in less use of anaesthetics and pain medication, a shorter recovery period, higher patient compliance and higher patient and family satisfaction. Stimulative music can be a source of motivation both physically and psychologically and becomes a positive reinforcement during physical therapy and rehabilitation. In summary, music can contribute significantly to medical care providing psychological and physical comfort to patients with various needs.' (Lane 2008)

By far, the greatest research efforts in the recent years have been directed towards basic neuroscientific research on the effects of music. This has involved investigation into the different ways in which the brains of musicians compared to non-musicians process music, as well as the effects of instrumental instruction. The few clinical practice studies that are available mostly lack data on untreated control groups or those subjected to placebo interventions. Only few studies have been performed to investigate possible differences in the ways people suffering from disorders and healthy people process musical stimuli. Only very recently, imaging techniques have been implemented with a view to demonstrating therapeutic effects of music in patients neurophysiologically.

Statistical reproducibility is a prerequisite for any form of intervention to be accepted into the canon of standard medical treatment. A large number of studies have been conducted to investigate the effects of music, but it is not only important to satisfy the criteria of evidence-based medicine. A combination of quantitative and qualitative research methods is needed to demonstrate the effects of music interventions on the different aspects of health, accepting that not all of the benefits which music can offer are statistically quantifiable.

#### Music Therapy in Austria

Austria plays a prominent role in music therapy in Europe. With the support of the state government of Lower Austria, it was possible to introduce, through the series of conferences, the state of the art in international research on music in therapy and medicine to the Austrian medical community and the general public. Since 2006 a bi-annual conference takes place under the title 'Mozart & Science' which brings together international top experts of the field specialized in the research and application of music therapy and music in medicine.<sup>1</sup>

#### Music Medicine Research Program

Wherever standard interventions are employed in Music Medicine, and in receptive music therapy, it is possible to conduct randomized, placebo and waiting list controlled double-blind studies. Within the Music Medicine Research Program at the Paracelsus Medical University in Salzburg, Austria, standardized interventions have been developed and then evaluated in randomized, placebo and waiting list controlled double-blind studies. The combination of quantitative psychometric methods, analysis of various physiological parameters, qualitative methods such as in-depth interviews, and current perspectives provided by methods such as Morphological Media Effects Research represent a special focus within the scope of research conducted as part of the program.<sup>2</sup>

Employing these research methods, we were able to develop a 72 hour audio program for post operative care which is based on chronobiological principles and which is specifically tailored to the need of the patients in a regular hospital for acute cases. Beyond this effort, our research has focused on interventions designed for ambulant patients in outpatient care. In the course of our research projects, we were able to show that the music programs and protocols that we developed for specific diagnoses can indeed improve precisely those disorders for which they were created. In a large clinical trial we tested our intervention for the treatment of depression<sup>3</sup>, dysthymia and burnout syndrome. Further studies focused on sleeping disorders, essential hypertension and cardiac arrhythmia with psychosomatic causes have also been conducted. The effects were reproducible and demonstrable by means of various, objectively measured parameters. Furthermore, all the interventions were characterized by a significant improvement in the patients' subjective quality of life. Another large multi-center trial testing the

efficacy of a specific music therapy program to ease chronic pain and a dementia study is currently underway.

The auditory stimulation method developed for the treatment of depression is available to patients through psychiatrists in Austria and Germany. It consists of an individualized program of specifically designed compositions which the patient can enjoy on special equipment in his own home.<sup>4</sup> All these developments were funded with the help of sponsors, including the City of Vienna and the Austrian National Bank which provided the opportunity to conduct the clinical trials on the effect of music for specific diagnoses that are unparalleled in the field.

#### Music Therapy Occupation

In 2008, the Austrian parliament issued the Austrian Music Therapy Law (MuthG, BGBl. I Nr. 93/2008), which came into force on July 1, 2009, fifty years after the first music therapy course began in Vienna.

Austria is now the only European country having a law that has a law that governs the legal implications of the music therapy occupation. The law includes the protection of the professional title 'music therapist' which can now only be carried by professionals who studied music therapy in an accredited institute. There are currently 245 accredited music therapists registered by the Austrian State Ministry of Health, most of them are working in hospitals and other institutions. The Austrian Professional Association for Music Therapists (OEBM) fulfils, since its foundation in 1984, the goal to represent the interests of music therapists working in Austria and aims to enhance the recognition for music therapy within the Austrian health care system. As of August 2012, the OEBM has 192 full members, 39 student members, 15 supporting members, 9 organisational members, and 4 honorary members. OEBM is a member of the World Federation of Music Therapy (WFMT), of the European Music Therapy Confederation (EMTC), and of the Austrian Gesundheitsberufekonferenz (a consortium of associations of Austria's recognised health care professions).<sup>5</sup>

Students interested in studying music therapy on a university level, have a number of choices; there are currently three university programs that offer training for music therapists in Austria. The University of Applied Sciences (IMC) in Krems conducts a 3-year music therapy bachelor degree program which is expected to be expanded to a masters degree program in the near future.6 The music therapy program at the Art University Graz<sup>7,8</sup> is a new 4-year program and it is offered on the same legal basis as the program conducted in Krems. The University for Music and Art Vienna also offers a music therapy program with 8 semesters. In all three cities, graduates of these music therapy degree programs are qualified to practice music therapy on the basis of their comprehensive interdisciplinary theoretical and practical education.<sup>9</sup> The students earn theoretical and practical competence that allow them to design and conduct music therapy treatments, as well as to reflect, document, and evaluate these interventions. Next to the theoretical and practical and practical and others means to work with music in a broad range of therapeutic

situations. The Carl Orff Institute at the University Mozarteum in Salzburg represents the integration of music and dance within artistic areas and its pedagogical transmissions - combining experiential 'hands-on'-oriented teaching with theoretical support in reflecting and analysis; practical orientation by observing and participating in groups as well as working together in social and special pedagogical settings and traditional school training.<sup>10</sup>

#### Application of Music Therapy

The current clinical applications of music include many medical areas; a recent effort has been made by the palliative care doctors at the Medical University in Vienna at the Vienna General Hospital.

" 'It concerns improving the affected people's quality of life in their remaining time with us', says Herbert Watzke from the University Department of Internal Medicine I, ... [and concludes] 'music has a healing effect, even when healing in the narrowest sense of the word is not possible. With the support of Konstantin Wecker, [a renowned artist] whose close relative has also been cared for over a long period of time in a palliative medicine department, music medicine should be promoted in the palliative care ward at the MedUni Vienna in the Vienna General Hospital. ... 'We are also hoping that Wecker's example sets a precedent. This project should be continued with other musicians', says Klaus-Felix Laczika [a specialist in internal medicine] from the University Department of Internal Medicine I. ... Laczika has been working with music on the intensive care ward for three years. [He finds] ... there is a 'three-way relationship' between the therapist, the patient and the music. ... In experiments Laczika has measured the breathing and the variation in heart rate of members of the Vienna Philharmonic Orchestra and its audience during a Mozart concert.

'Every Mozart piano concert is a rollercoaster of all the human states of mind, ranging from ecstasy to peace and humour, which are able to be made visible by means of modern stress detection techniques', explains Laczika. This method of visualising stress and relaxation is also possible in critically ill cancer patients on the palliative care ward. 'Even in these patients music is generally able to be used to put a patient into either a relaxed or a stimulated condition' says Watzke, Austria's only professor for palliative medicine."<sup>11</sup>

Music therapy with sick newborns and premature babies is a young field, whose origins can be dated to the early 20th century. Since then, research results have advanced the practice to the point that the effectiveness of music therapy on newborn infants with health problems is recognized across the board:

- Music Therapy interventions reduce stress reactions. Music improves the oxygenation of the blood and the weight increase and supports the child's self-regulation.
- Active music therapy work encourages the vocal contact by the mother and the father. This promotes communication and interaction, boosts self-confidence and satisfaction of the parents and can cause lasting positive effects on the mutual bond (Noecker-Ribaupierre 2012).

Findings in medicine, of infant research, sound-effect research, attachment theory, stress research and pain research, indicate that music therapy can soften the nonphysiological sensory overload in a neonatal intensive care unit. The use of music in infant care may prevent later developmental delays or mental disorders. Thus, music therapy is a very suitable addition to the range of therapeutic means in a nursery. Since 2005, Leslie Schrage-Leitner works at the neonatal intensive care IMC and NICU of the Children's Hospital Glanzing at the Wilhelminenspital in Vienna as a music therapist specialized in neonatology. A project which was made possible by the NGO 'Light into the Dark' and the University of Music and Performing Arts (Schrage-Leitner et al. 2011). Andreas Lischka, director of neonatology at the hospital is open to the use of alternative methods in his department, ranging from homeopathy to music therapy. Especially the latter produced significant improvements in the children's breathing and heart rate. With music therapy, the preemies have a lower energy consumption allowing them to gather their forces and use them to recover more quickly. Their facial expressions are no longer contorted with pain but relaxed. Scientific studies are almost obsolete, because 'I can see exactly whether a child is smiling or crying,' says Lischka. Nevertheless, the researchers are working on refining the data in order to create measurable scales.<sup>12</sup>

Recently, music therapy is also being applied in the neonatal monitoring ward of the State Hospital Weinviertel in Mistelbach, a town in the province of Lower Austria.13 The effect of music therapy is undisputed. It has become increasingly important in the treatment of inpatients of all ages,' says Wolfgang Sobotka, State Deputy Governor, about the new offer of music therapy for premature infants which was launched in mid-November of 2011. Music therapist Joerg Schuppler not only works with the children, but also includes their mothers or both parents. Resonances between the child and therapist are created by gentle tunes (mostly comprise only two tones), the voice and touches, allowing the baby to calm down and giving a sense of security. 'The positive effect is a stimulation of respiration and a significant relaxation of the child, which in turn is conducive to weight gain. Joint therapy sessions with the mothers are also strengthening the parent-child relationship during these difficult times,' says the music therapist.

#### Conclusion

In the light of Austria's musical heritage marked by the work of prominent figures like Wolfgang Amadeus Mozart and Richard Strauss, it seems natural that music effect research and music therapy are held in focus. This is also reflected by the passing of the Austrian music therapy law in 2008 which has had a positive influence as it provided objective professional standards for the entire field. Music Medicine and Music Therapy have found their way into numerous areas of application, and current research findings indicate even more promising treatment perspectives. These in turn challenge education and training for the music therapy occupation as well as research such as the Music Medicine Research Program at Paracelsus Medicine University in Salzburg.

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### 1 to 5 Piano: Musical Medicine

Trirat Uptampohtiwat<sup>+</sup> (Thailand)

#### Abstract

One to Five Piano Institute was established in November 2007 as a non-profit organization. This article is a description of the one to five piano methodologies. This includes the research in the use of music in a therapeutic manner with two example case studies detailed in this article. The history of the 1 to 5 Piano spans across both Thailand and China. It is an example of an outstanding innovative music therapy project created by Thai pianist Trirat Uptampohtiwat, the director of the One to Five Institution.

Trirat Uptampohtiwat has been teaching piano using his unique technique known as 1 to 5 Piano for 35 years to a diverse range of people. It includes the elderly, blind, deaf, exceptional children, and patients undergoing psychiatric rehabilitation as well as the general public. In addition, he serves as a music therapy advisor to Thailand's Department of Mental Health and the Ministry of Public Health.

Keywords: Music Therapy, Thailand, 1-5 Piano

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#### Introduction – What is 1 to 5 Piano?

The 1 to 5 Piano method may initially appear to be just a simple technique for learning to play the piano, but it actually offers more. It is a new and extremely effective music therapy and brain training process that has far-reaching therapeutic benefits. It is *music for medicine* and has been proven as a tool for improving the quality of life for people of all ages suffering from the challenges associated with:

- Children & Youths: Autism, Learning Disabilities, ADD, ADHD, electronic game addiction etc.
- The Elderly: Alzheimer's, Parkinson's, Dementia
- Others: Stress, pre- and post-maternal mental health issues, memory loss, insomnia, psychiatric issues (in the rehabilitation stage), drug addiction, stroke patients, anxiety, depression, post-traumatic stress disorder, Schizophrenia etc.

#### How does 1 to 5 Piano Work Therapeutically?

The 1 to 5 method of musical therapy is classified by psychologists and psychiatrists as a form of visual motor auditory (VMA) mapping training. The theory is that it will likely engage and possibly strengthen a multi-sensory frontoparietal network of regions and pathways in the brain that respond to visual, auditory and motor representations of the same action, and sensory motor feedback.

In simpler terms, 1 to 5 Piano Therapy is a brain training exercise and an active meditation (or dynamic meditation) process that can be used for improving mental and physical health, through regular practice. Medical studies have linked various disorders with over activity or faulty neurological wiring in the default mode network of the brain. It has been proven that this brain region is less active in experienced meditators, and that regular meditation and the use of meditative techniques actually rewire the brain. Increasingly, studies suggest that the brains of experienced meditators actually work differently than the brains of those who don't meditate. There is strong evidence that meditative practice appears to change the way the brain works, and provides benefits in dealing with mental disorders.

When one plays using the 1 to 5 Piano technique, both hands are used. This has the effect of balancing the left and right brains, thus enabling the brain to continually change and effectively rewire itself. During this active meditation process, when the fingers are moved on the piano keyboard, together with using concentration, feeling, and instinct to move the fingers decisively to the required notes, this invokes the visual motor and auditory mapping process.

#### Research Results:

Joint research with the Faculty of Physical Therapy at Mahidol University, Salaya, Nakorn Pathom was conducted on the "Effect of Musical Training on Reaction Time" with a randomized control trial in elderly Thai individuals that resulted in statistically significant improvements in visual and auditory reaction times over the control group in a seven week program. In addition to these benefits and in dealing with mental disorders, there are also the additional benefits of the pleasure of creating music for oneself, the self-satisfaction of quickly and easily being able to play the piano, plus the soothing nature of music itself which evokes an overall sense of well-being in the individual. This helps to make 1 to 5 Piano a very compelling and engaging form of therapy.

#### What is the 1 to 5 Piano Technique?

The 1 to 5 Piano technique uses easy to follow numerical musical notation (rather than complex, hard to learn traditional notation). Effectively, each musical note is translated into a number from one to five, for either the right hand or left hand. It is so simple that any person who has the ability to count from one to five can learn the technique in a very short period of time.

The numerical music notes represent the five fingers of each hand [1 - for thumb, 2 - for index finger, 3 - for middle finger, 4 for ring finger, and 5 for little finger]. This simple, but extremely powerful technique of using only the numbers from one to five, replaces complex traditional musical notes. This makes it easy to follow, and enables everyone (even those with learning disabilities and psychological impairments) to learn to play piano - quickly, effectively, and enjoyably.

#### Advantages of the 1 to 5 Piano Technique

- No musical knowledge is required to begin, because it is easy, rapid, effective, and gives instant results with no stress and no tension
- Knowing only the numbers 1-2-3-4-5 and the letters A-B-C-D-E-F-G is sufficient
- Easy to follow as no decoding required
- Easily understood by everybody (young children, the elderly, and those with mental disorders)
- Cost-effective because 1 to 5 Piano can be played on inexpensive keyboards
- Same benefits as meditation by using visual motor auditory mapping training with the systematic concentration of playing the piano with both hands
- 1 to 5 Piano is a *musical medicine* unlike other music therapies in general because it is a form of proactive treatment with the patients taking action themselves
- It can also reduce medication requirements, and their associated side effects
- Increased feelings of happiness, mental wellbeing, self-esteem, & inner peace

The benefits of the 1 to 5 Piano method as a therapy, source of pleasure and relaxation, is enhanced by the fact that music is considered to be a universal language. It reaches even the illiterate, and the uneducated, and the dysfunctional. It is hoped that the 1 to 5 Piano methodology will help to spread music as the universal language for humanity, and start to assist in breaking down the barriers between people, communities and nations in the future.

#### Background of the 1 to 5 Piano Institute

The 1 to 5 Piano Technique was developed by Trirat Uptampohtiwat of Bangkok, Thailand who has more than 35 years experience as a piano instructor. Trirat has believed for many years that the 1 to 5 Piano technique can be used as an effective music therapy methodology, and is now pursuing his dream of improving the lives of millions of people -including the very young, the elderly, the mentally and physically disabled, and simply those who are stressed and are seeking an effective form of relaxation.

The 1 to 5 Piano Institute was established in November 2007, as a Not-for-Profit organization, with the vision to make its 1 to 5 Piano Technique widely available as an effective form of musical therapy to the people of the world after starting in Thailand. Following his initial local success, the Institute's vision is now being implemented by introducing it into selected countries such as China, Singapore and Australia to further prove its core concepts.

In order to achieve its vision, the 1 to 5 Piano Institute is now actively seeking to enter into partnering and support arrangements with the music therapy associations, medical and mental health authorities (initially in Singapore and Australia), as well as organizations specializing in providing support for people with various mental disorders. It's plans are to work with these organizations to solidify and refine the concept while gaining widespread acceptance and promotion of it before embarking on more global programs.

This innovative and unique 1 to 5 Piano technique is currently in the process of being patented globally.

#### Case Study A

As the 1 to 5 Piano technique as music therapy is both simple to learn and easy to teach, the Institute has been offering programs on the 1 to 5 Piano Therapy techniques to the rural communities in the Loei Province, Thailand to support sustainable community development. It began the project at "Somdet Prayuparaj Dansai Community Hospital" in 2009, at first for the mental and physical health of hospital staff. Subsequently the 1 to 5 Piano therapy is provided as a full in-hospital, outpatient, and community-based program to a broad and varied audience. 1 to 5 Piano therapy is used throughout the hospital, and daily sessions are conducted by physiotherapists with patients in many areas of the hospital, including Neonatal care, Pediatric, Orthopedics, and even as a pain killer for patients with chronic pain from undetermined causes, and for chronic illness from physical and psychological causes, as well as to support people in enhancing their overall quality of life.

In addition, the 1 to 5 Piano methodology is now a leading tool used by the psychotherapy and medical teams of Somdet Prayuparaj Dansai Hospital to assist with stress management, and to promote relaxation for over 300 students in the community's Chumchon Baan Dansai primary school. The target groups are students in economically deprived areas, and in communities lacking the full range of social services. These students come from families in which the problems include conflict, unemployment, economic hardship, substance abuse, absent parents, and other dysfunctions etc. Some of the students suffer from autism, learning disabilities, ADD, and ADHD. In total, over 700 students have had regular exposure to 1 to 5 Piano, and have experienced positive changes in their behavior. The proven results are most satisfying for their parents, teachers and medical teams. The 1 to 5 Piano Therapy has provided more than therapeutic outcomes. It has given participants the opportunity for meaningful and satisfying activities to improve their studies, to change their behavior while offering hope for improved lives for the 700 students and their families. The results of the 1 to 5 Piano program in Loei Province are a simple, but impressive demonstration of the level of accomplishment that can be achieved.

#### Case Study B

"James" was a seven year old student at Chumchon Bann Dansai Primary School in 2009. He was very aggressive, and often violent with his teachers and other students.

James' parents are separated, unemployed, involved with substance abuse (alcoholics). He was both physically and mentally abused, and even tortured by his parents, tied up with rope and chains, and kept captive in the straw hut where he lived, with insufficient food for several years. A relative of his mother who is a teacher found and adopted him. She sent James to primary school, which was where James's violent behavior and aggressiveness were identified. He did not trust anyone, teachers and friends were seen as enemies, resulting in constant fighting with teachers and classmates. He was sent to the mental hospital, but the Medical Team from Somdet Prayuparaj Dansai's were simply not equipped to deal with a multi-traumatized victim, and nor provide him with the level of warmth and appropriate intensive treatment he badly needed.

However, his psychotherapist began incorporating the 1 to 5 Piano therapy in the sessions with him. Within one month (after using the therapy once a week for 15-30 minutes), James became calmer and more reasonable, his aggressiveness decreased, his behavior had completely changed. He also appeared to be much happier. This music therapy has comforted him, soothed him, and calmed him down. He is achieving great satisfaction from being able to play his own music, using an inexpensive keyboard, utilizing the 1 to 5 Piano numerical music notes.

Now James is 10 years old, and has been confirmed as being a good student by both his teacher, and the medical team at Somdet Prayuparaj Dansai Hospital.

With the 1 to 5 Piano technique, children who play piano have developed musical skills which engenders self-esteem and greater self-confidence.

The philosophy that "Every Child Can" has helped 1 to 5 Piano achieve unbelievable success, even with children who previously had no hope.

#### Testimonials:

1 to 5 Piano Therapy for children in Dansai, Loei, Thailand From the Dansai Crown Hospital and the ChumChon Ban Dansai School Many things that we need can wait. But for the children they can't wait. For our children we cannot say the word "Tomorrow," because their names are "Today." Gabriala Mystal

In Dansai District (Loei Province, Thailand), we have a big problem with many children having Learning Disability. In ChumChon Ban Dansai School, just one of 66 schools in the province, we have 61 learning disabled children (10% of the total students).

After we used 1 to 5 Piano as music therapy with the students for six months to one year, we saw an amazing improvement in these children. Nearly 65% of them have shown improvement in learning ability, social and communication skills, and emotional control. But the greatest benefit is the "HAPPINESS" that they have.

Now, in ChumChon Ban Dansai school, we have keyboards in every classroom, for all students (almost 700 students). The students and teachers can play any time they feel like it.

MUSIC is around all over the school. There is a SMILE ON EVERYONE'S FACE, and HAPPINESS is inside EVERYONE'S HEART. THIS IS THE MAGIC OF 1 to 5 PIANO.

Darin Jungpattanawadee (Pharmacist at the Dansai Crown Prince Hospital and volunteer for 1 to 5 Piano)

#### Location & Event History of Successful 1 To 5 Piano Programs

Relating to Learning Disability Children - 1 To 5 Piano Technique used in training is simple approachable and easy to learn especially when using in classroom, the students will get a number of benefits for example; developing their listening skills and cooperative team work, and facilitates easier planning for teachers.

Besides the 1 To 5 Piano Institute itself, there are many therapy programs using the 1 To 5 Piano technique as therapeutic tool in rural communities. It is currently, established in special education schools, mainstream schools and kindergartens where it delivers a special form of therapy to children and everyone with special needs as follows:

- Schools for the blind and deaf
- Rattanakosin School for the Learning Disabled
- The Royal Institute of Child Development in Chiang Mai.
- Autistic Association in Khon khaen
- Mental Disabled Children Association in Loei
- Srithanya Psychiatric Hospital
- Srithanya Family Link Unit
- 17 Psychiatric Hospitals under the supervision of the Thai Mental Health Department
- Bangpakok Hospital (Rajburana)

- Nakhornthon Hospital
- Somdet Chaopraya Psychiatric Institute Hospital
- Somdet Prayuparaj Dansai Hospital (Loei)
- Lamsonthi Community Hospital (Lopburi)
- Khon khan Rajanakarin Psychiatric Hospital

#### Workshops & Events

- Workshop in developing children's EQ/IQ to teachers and carers of community primary schools in Bangkok at The Convention Hall, Prince Palace Hotel
- Workshop for teachers at Chumchon Ban Dansai primary school, Loei
- Workshop for stress release for trauma victims at Oon Ai Rak Home, Bangkok
- Workshop for disabled children at Pakkred Home, Nonthaburi
- Workshop for HIV infected children (absent parents) at Lorenzo Home, Chonburi
- Workshop & Seminar to members of the Healthy Living Club regarding sleep quality at Bamrungrad Hospital, Bangkok
- Workshop for stress release to homeless people at Termrak Home, Surathani
- Workshop at Sanmahapon Welfare Center for homeless, Chiang Mai
- Workshop at Rama IX Temple as a pre-meditation for meditators, Bangkok
- Workshop during Children's Day activities at Thai PBS Television, Bangkok

#### Presentations

- Presentation 1 To 5 Piano Therapy at The Annual Meeting of Ministry Of Public Health.
- Presentation at the ASEAN Federation for Psychiatry and Mental Health conference at Siam Paragon
- Presentation at Annual Meeting of South Asian Forum of Mental Health and Psychiatry
- Presentation at WHO Mental Wellbeing Conference in Sri Lanka
- Presentation at Lobetalarbeit E.V. Institute, Cell, Germany
- Presentation & Workshop at Dominiek Savio Institute in Belgium

#### Private Classes for Groups and Individuals

- Conducted 1 To 5 Piano Classes jointly with Work Point Entertainment at Chamchuree Square, Bangkok
- Conducted 1 To 5 Piano Classes for the staff of Telephone Organization Of Thailand

#### 1 To 5 Piano in The People Republic Of China

- Opened 70 branches of 1 To 5 Piano as sister companies in six cities, Beijing, Shanghai, Guanzhau, Shenzhen, Zhuhai, and Xiamen
- Opened 30 branches of the Piano Café for private lessons in Beijing, Shanghai, Guanzhau, Shenzhen, Xiamen.

#### Publications

- Articles focusing on the 1 To 5 Piano method and Trirat Uptamphotiwat have been published in leading newspapers such as Bangkok Post, Bangkok Biz News etc.
- Magazines such as Skulthai, Elle, The Manager, Bazaar Magazine, Mahasajan One to Five, "Mai Mi Krai Nai Loke Len Piano Mai Dai," Sen Tang Kiatiyos etc.

#### **Television Programs**

- Big Family
- Lor Len Lok
- After news Modern Nine TV
- 108 Music
- Busaba Bann Chao
- Talok Hok Chaak
- Bang Or
- Cheevit Cheeva
- Super Health
- Mount Mun Mun
- Nueg One Deao Gun
- Buntuk Khon Dee
- Cable TV Rak Look
- Princess Dairy
- Gino Health Club



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# Music & Medicine:

The Development of an Integrative Approach to the Application of Music and Music Therapy in Medical Settings

Joanne V. Loewy<sup>+</sup> (USA)

#### Abstract

Clinical practice, research & training are three critical aspects of program development in the establishment of music and medicine in hospital settings. Since 1994, the Louis Armstrong Center for Music & Medicine has been developing clinical care strategies that have fostered programs internationally in support of integrative medical practices. This article will highlight the development of that growth; from a one unit service to an inner city center for infants, children and adults of varying needs and diagnoses.

Keywords: Music Therapy. Music Medicine, Music Psychotherapy

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#### Introduction

The Louis Armstrong Center for Music & Medicine has offered clinical services in the hospital setting for nearly two decades. Support from The Louis Armstrong Educational Foundation, the Keith and Clara Miller Foundation, the Grammy Foundation, the Heather on Earth Music and Remo Foundations and various estates directed by the late hospital trustee Richard Netter have supported our growth and expansion in hospital and community clinical and research endeavors.

The music therapy program was originally housed in the Department of Social Work and Home Care Services. Starting with a relationship between Louis Armstrong's doctor Gary Zucker MD and Joanne Loewy, the program began with support as a single grant in 1994. Loewy had come to Beth Israel Medical Center as a patient, and during that time, volunteered on the Peds floor. The Louis & Lucille Armstrong Music Therapy Program began as a service offered on Beth Israel Medical Center's Department of Pediatrics. Loewy and her interns from New York University and Molloy College conducted daily sessions with patients on Pediatrics. By 1996, with a grant from a medical foundation and a pharmaceutical company, a plan for a Pediatric Pain conference developed. Clinicians from neighboring hospitals in NYC and close-by states, such as New Jersey and Pennsylvania took interest in the first symposium in Pediatric Pain and Music Therapy co-sponsored with NYU. This first conference was the seed for many conferences and trainings that have ensued within the past 19 years.

A pioneering music therapist in the development of music therapy and pain management who was the Coordinator of Music Therapy Programs at Temple University, Cheryl Dileo provided Loewy with early expertise and support with editorial prowess assisting in the development of the now familiar text that was an accompaniment to the symposium: 'Music Therapy and Pediatric Pain'-first published by Jeffrey Books in 1997. The symposium itself drew 189 clinicians, doctors, nurses, and music therapists who attended the symposium. The text is currently in its 7<sup>th</sup> reprint. Symposia and conferences have been a stronghold and part of the growing development of Music and Medicine in the NYC and tri-state arena of music and medicine.

The LACMM is committed to growing music and medicine programs internationally. Throughout our 19 year history we have hosted conferences in diverse and distinct areas of research and clinical practice. From pain management to cancer care, or pulmonary function in children and adults to NICU care, from treating the ailments particular to musicians, or developing models for implementing music therapy in post traumatic stress and trauma, our symposia and conferences whether open to the public, or invited as working summits, have been devoted to the understanding of key concepts and areas of music and medicine and music therapy. Our stronghold devotion to training and research has provided an international forum whereby we have assisted the international growth of music and medicine in developing countries. Listed in Appendix A, beginning with the most current and working back in time are some of the events where we hosted full day and multi-day events in which music therapists, doctors, social workers with music and medicine specialties gathered at Beth Israel Medical Center to develop the knowledge and understanding of critical areas in integrative music medicine. The symposia and events which are starred, are those that have affiliated texts that are inclusive of chapters authored by many of the participating doctors, nurses, social workers, creative arts therapists and allied health professionals who were participants and these text are outlined in Appendix B.

In 1996, after two years of working in the Milton B. Stern in-patient Department of Pediatrics, a second area of care presented itself as an immediate need-the Pediatric HIV Program. I developed an out-patient program in conjunction with the Peter Kruger Clinic at Beth Israel and with a grant from the Keith and Clara Miller Foundation. A second music therapy position was created which focused on children and families with HIV and families with AIDS. Music therapy served as a continuum of care from in-patient treatment to weekly out-patient care. Children, teens and their families participated in weekly music psychotherapy sessions. When they became very ill and needed to be hospitalized for blood transfusions or infection, or for palliative care when infection had taken over their frail bodies, music therapy was there at each and every juncture. In 1997, we designed two research projects with Pediatricians-one in veni puncture pain and the second in sedation (1,2).

With two music therapy lines, the Louis Armstrong training program expanded and by 2000, we were affiliated with many diverse American music therapy programs, and some international universities as well. Applications of our internship programs were growing and by 2001, we had over 43 applicants for 4 spots. Our music therapy interns were given numerous development opportunities and word was spreading, particularly as our graduates were often winning positions that involved starting new programs in medical centers. Our interns were integral in assisting to build music therapy in many new and diverse treatment areas of the hospital: NICU, Pediatrics, Family Medicine, Maternity, Oncology, Respiratory Step Down, ICU's and there was interest from the Pain and Palliative Medicine Team.

In 2001, we formally and officially opened our training to international students. We were invited to begin working with the National Arts and Science Foundation and the American Music Therapy Association after 9-11. Joanne Loewy along with Kristen Stewart invited 9 prominent music psychotherapists in NYC to develop a training whereby music therapists and other professional caregivers could learn about music therapy in the treatment of human vindicated trauma. The training was 6 months and involved those personally affected by 9-11 alongside those who were professionally affected-it was a learning for all involved.

In 2005, The Louis and Lucille Armstrong Pediatric Music Therapy Program received two important prestigious grants. The first was from the Grammy foundation and allowed for the study of out-patient asthmatic children. The in-patient work involving music meditation and active wind play would have a chance to be piloted as an out patient program for children and teens. This work continues today and is offered in several NYC public schools. The second grant was from Richard Netter, a long-time Beth Israel Medical Center trustee. This grant provided the opportunity to open The Louis Armstrong Center for Music and Medicine. It came with designated Department space (an in-patient office suite) and a Clinic on Union Square. Within the next few years, the department expanded considerably- a medical director and 6 music therapists and an administrator were brought on board. We received many grants.

Our treatment areas expanded to Orthopedics, Pulmonary & Cardiac Care, the SICU and we began to develop a Center where musicians and children and teens with developmental and/or emotional disturbances could be seen for weekly music psychotherapy sessions. Today, our Louis Armstrong Center for Music and Medicine includes in patient and out patient- a five -day a week clinic and we specialize in the treatment of musicians, children and teens with emotional issues, and developmental delays and adults with neurological disorders. Additionally we provide our Asthma Initiative Program for children and teens on an individual basis and we see groups comprised of adults with pulmonary challenges (COPD). We also have instituted Cancer Care Programs in fragile environment: radiation and chemotherapy.

#### **Training & Education**

Throughout our 19 years of growth, the training of music therapists and allied professionals has been one of the cornerstones of our growth. Our therapists are team oriented and all of our 12 research projects include MDs along with music therapists as our principle investigators. We also have maintained that live music is a stronghold and preferred to recorded music. This is because in medical work it is most effective to have the capability to entrain with our patients' vital signs and we value the ability to be able to shift according to both physiological and emotional domains of care, in the moment of change, with the patient.

The Armstrong Team provides weekly clinical music therapy supervision for staff and interns alike. Prospective interns may apply at any time by requesting an application and sending it in with a video of themselves playing guitar, piano, a wind or string instrument along with the playing and singing of a favorite song. Wind and string players are welcomed and favored. The department has institutional long-standing affiliations with Drexel University, New York University, Barcelona University, University of Madrid, Loyola College, Molloy College, Montclair State University, and Berklee College of Music. It has been an approved training site for the American Association for Music Therapy (AMTA) since 1981 and on the National Roster of the American Music Therapy Association since the merge of NAMT and AAMT in 1998. The internship fosters skills in the AMTA professional competency areas of music foundations and skills, clinical foundations of therapy, ethics, research and foundations and principles of music therapy assessment, treatment planning, implementation, evaluation and documentation (for more on the professional competencies go to http://www.musictherapy.org/competencies. html).

In addition we have developed our own training program on-site that consists of 40 hours of seminar lectures, 10 months of weekly sessions whereby 9-20 sessions per week are followed with supervision inclusive of observations-to be observed and to observe, three to six videoed sessions per year, 26 hours of assigned reading and experiential designs and numerous on-site supervision meetings.

For select graduate music therapy interns and by interview, we have two additional training opportunities:

Our Musician's Clinic and Child Development Music Therapy Training which includes experiential weekly learning in how to treat the ailments common to musicians such as depression, chronic fatigues, overuse, chemical dependency and performance anxiety. Additionally we provide music psychotherapy play approach to treating children with ADHD, PDD, Autism, Learning and Speech delays and distinct ways of implementing a music psychotherapy approach for teens with manic depression, eating disorders or suicidal tendencies.

A second **Child Life Certification** is also available to Board-Certified Music Therapists seeking dual certification to expand career opportunities. This 480 hour internship within a medical music psychotherapy program focuses on music therapy as a crucial component of the psychosocial care of hospitalized children. Interns will master the medical application of music therapy in terms of procedural support, pain management, and respiratory care, and will be eligible to sit for the child life certification examination. Our **International Clinical Training** has expanded through the years to include university programs in Germany, China, Korea, Singapore, Japan, Europe and Scandinavia.

#### Training for Non-Interns

The Louis Armstrong Music Therapy Programs provide weekly and monthly orientation and observation programs specifically designed for professionals, students, Doctors, RNs, Chaplains, Social workers, PTs, OTs, Music Educators and others who want to observe and/or learn more about all of our music therapy programs at Beth Israel. This official training program became customized in January 2006 due to the growing interest in our program and the number of observations requested. Our team seeks to organize and consolidate the experience of the observer. In this way each visit includes overview of a broad range of populations, clinical music therapy techniques and areas of clinical interest that professionals and students desire to learn about. This best seems to meet the needs of our visitors as well, and most accurately reflects the full range of practice and techniques that we provide in medical music therapy.

The initial days of such trainings include an orientation, complete with video examples and a folder of current critical sate-of-the-art medical music psychotherapy articles and readings as they pertain to our program. The orientation includes a tour and some experiential work as well. The training includes observations as well. Our team seeks to cater these trainings to the population of the observer's choice, and we provide processing time for

the trainees to ask questions and learn about how and why we intervene, with particular rationales discussed and explored according to the music psychotherapy model we have developed for the various populations we treat within a medical context.

In the past nine years several of the research studies and clinical service programs provided on an in-patient basis have expanded into the community. Our out-patient center has launched unique services in several NYC clinics and schools, providing services to diseases that were typically treated as 'emergency' room' illnesses and launching innovative preventative means whereby patients become motivated to gauge their symptoms on a day-to-day bases. By creatively addressing problems through the fostering of music activity independently and preventatively with music, music in medicine becomes a means for maintaining good health and wellness. Two innovative programs that incorporate mind-body techniques for children and adults in both pulmonary and cardiac rehabilitation include Music for AIR (Advances in Respiration) and Music for CAIR (Cardiac Advances in Rehabilitation). Our Asthma Initiative Program (AIP) has helped children and teens with asthma in the school or community environment through the implementation using singing and the voice to address control of breath and music visualization as a means of inquiry and body awareness, and active wind play (recorders and flutes) to foster control of inhalation and exhalation within a creative context.

The Music & Health Clinic serves the unique health care needs of musicians and performing artists, linking performance-related ailments to medical and clinical music therapy services. We are proud to host a medical director, a team of music therapists and specialized doctors who can attend to the physical and emotional needs of the musician and performing artist. The clinic also serves children with developmental delays such as PDD, ADHD and autism and teens that have depression. Music therapists at the clinic also treat adults who have Parkinson's or Alzheimer's disease or those who are post stroke. Additionally, we serve people who are at any and all stages of cancer. We use music to address symptoms such as nausea and 'chemo-brain' and/or anxiety and depression that can accompany cancer treatment.

The Louis Armstrong Music Therapy Department provides a broad range of services throughout the medical center and within the community. Our mission ensures that our staff provides state-of-the-art care to complement medical treatment. Our team is trained to offer the most current music psychotherapy techniques in clinical improvisation, music meditation, pain management, sedation, end-of-life, and breathing modalities of music and healing. We are affiliated with New York University, Hahnemann Creative Arts in Therapy Program at Drexel University in Philadelphia and the American Music Therapy Association. Our music therapy team is comprised of six music therapists, ten graduate interns and two research fellows carefully selected from universities across the country. We also provide training for international students during the summer. Our team conducts research in conjunction with doctors and nurses, providing the utmost care and creative attention to the patients and families we serve. We are affiliated with the International Association for Music and Medicine (IAMM) and the American Music Therapy Association which defines music therapy as "the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program." (American Music Therapy Association definition, 2005). Music has been used in healing virtually since the beginning of time. There is growing interest in Easter and Western hospitals in music and medicine. Clinical interventions are based on scientific research indicating that music therapy may alleviate pain, regulate heart rate and blood pressure, improve breathing, ease anxiety, reduce depression, and enhance quality of life.

Our patients' feedback, foundation grants from healthcare societies and recent doctor support indicates that music therapy has assisted in patient, family and community relationships and improved ego functioning. In the United States, music therapists must pass a national board certification exam upon completion of an accredited university program and internship and are required by the Certification Board for Music Therapy to maintain ongoing training in current methods, policies and practices. Music therapists specifically study the evidencebased use of music (including both music listening and active music-making) to achieve goals ranging from neurological rehabilitation, speech development, stress management, physical wellbeing and psychotherapeutic aims.

In New York State music therapists must be licensed by the NY State Department of Education, and are educated at the Masters and Doctoral level. The are trained in the most current music psychotherapy techniques in pain relief, wellness, stress management and breathing modalities of music and healing. In addition to using music to improve physical symptoms, music therapy in a medical setting involves treating the whole person—body, mind and spirit. At Beth Israel, our medical music psychotherapy approach involves the assessment of each patient's unique mind-body connection (how the mind is affecting the body and how the body is affecting the mind), support of coping mechanisms which have been shown to enhance the immune system, treatment of the rhythms, resonances, tones, and timbres of the body to promote harmonic balance, addressing physical, emotional, cognitive, developmental, social and spiritual needs of the person, promoting self initiative, which thereby enhances one's sense of empowerment as a proactive force in his/her own healing. This is a major premise in integrative medicine and transfers to the way care is provided our Louis Armstrong Music and Medicine team and within Beth Israel Medical Center as well.

#### Music Therapy Session Structure

Upon consultation from weekly medical rounds where referrals are made by doctors, nurses and social workers, music therapy is offered in one-to-one sessions with patients, in family sessions and in group sessions with other patients, family members, friends and/or medical staff. In addition, we provide environmental music therapy (EMT) to promote a relaxing and soothing atmosphere for patients, families and staff on the unit (Canga et al, 2012). We also implement community outreach programs such as the Asthma Initiative Program (AIP) in local schools

and outpatient services such as The Music & Health Clinic for performing artists and musicians, Music for AIR for adults with respiratory illnesses, and Music for CAIR for adults with heart disease.

A music therapy treatment session may involve music listening, guided visualization, structured songs, clinical improvisation, song writing or musicassisted relaxation. All sessions are tailored to the patient's needs and preferences. At the Louis Armstrong Center for Music & Medicine, music therapists play live music, customized to the individual needs of each patient based on cultural and personal preferences, as well as disease state and physical and emotional state.

Unlike recorded music, live music can be adjusted and adapted to the patient throughout the session. For example, sedation may be supported by slowing the tempo of the music gradually and changing musical elements such as meter, arrangement and texture, or entrained to the patients presenting respiratory rate or heart rate. Participants may choose to play, sing, direct or simply listen and are provided with easy-to-play instruments, or they may choose to listen and have a musical piece played for them by the music therapist, or by a family member, accompanied by a music therapist.

#### Referrals

Our music therapy team treats people across the life span, from premature infants in the NICU to people recovering from surgery to end-of-life care. Patients in the hospital may benefit from music therapy to alleviate pain, anxiety, or depression, provide gentle stimulation for loss of consciousness and enhance coping, communication and quality of life. People in the community who are coping with an illness may also receive music therapy through our outpatient programs for children and teens with asthma, adults with COPD or heart disease, and musicians and performing artists.

There are numerous scientific research studies that support the use of music therapy in medical settings that are published in peer reviewed journals. State of the art research on music medicine and music therapy in medical settings can be found in the peer reviewed international journal of *Music and Medicine*.

### Current and Past Music Therapy Research Studies (all co-investigated with MD's and/or RNs) at The Louis Armstrong Center for Music and Medicine at Beth Israel Medical Center include:

- Effects of an Integrative Music Therapy Program on the Perception Noise in the SICU: A Patient, Caregiver, and Physician/Nurse Environmental Study n=120
- Clinical Music Improvisation and Infusion Study at St Luke's Roosevelt. Music therapists are investigating the impact of clinical music improvisation on resiliency of patients receiving infusion therapy. n=75
- The Impact of Music Therapy on State Anxiety in Cancer Patients Undergoing Simulation (Radiation Therapy) n=60

- The Effect of EMT on Anxiety Levels and Perception of Waiting Time in the Radiation Oncology Waiting Room n= 80
- The Effects of Music Therapy in the Recovery of Patients Undergoing Spine Surgery. Music therapists are measuring the effects of live music applications in pain and recovery of SPINE patients. n=75
- EEG Sedation Study: Chloral Hydrate vs. Entrained Lullabies n=60 complete/ published (Loewy, et al, 2005)
- Heather-on Earth Multi-site Music Therapy Study: n=272 complete/(in press) 11 NICU's (Heather on Earth)-and subsequent monograph-International TRAINING-Remo (multi-international authors)
- AIP (Asthma Initiative Program): n=200+/Clinic/3 schools-Bronx, Brooklyn, Lower East Side (in press)
- Music for AIR (Advances in Respiration) n=200 Clinic, CCR, Nursing Homes (in press)

Summary of the Training and Orientations at the Louis Armstrong Center We provide weekly and monthly trainings-shorter visits are orientations and observations and monthly trainings are more in-depth. We teach and tutor on our music therapy approaches and professionals as well as students, doctors, nurses, social workers and chaplains with interest and/or former music training or healthcare study backgrounds are welcome to attend. We are also an AMTAapproved training site for music therapy students seeking the internship for board certification and our program can lead to Child Life certification if applicants specify for this. For music therapy professionals seeking advanced training in our music psychotherapy approach, we have an International Training Institute and the Thanks to Scandinavia programs which run throughout the year or within the Summer months. We are affiliated with the International Association for Music and Medicine (IAMM) which is an association comprised of medical professionals and music therapists and music and medicine professionals. Their conference was July 3-8, 2012 in Bangkok, Thailand.

The growth of music therapy and music medicine in hospitals is rapidly expanding. It is imperative that this development occurs in a sensitive and gradual way. It is my hope that clinical practice, research and training will develop as essential activities alongside one another to ensure that patient interventions are evidence-based and that we re-search and grow in our practices to serve the music best suited for live human beings. This implies that as we develop conceptually, we also work with live human beings, while we write about our work, and at the same time read, keeping our eyes on the research of colleagues and peers.

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#### Appendix A

Music & Medicine: Integrative Models in Pain Medicine January 30 & 31, 2012

Converging Disciplines in NICU Care: Psychophysiology, Neurology, NIDCAP, and Music Therapy Co-sponsored by Drexel University's Hahnemann Creative Arts in Therapy Program & New York University Music Therapy Program June 7, 2012

Thanks to Scandinavia Scholars Integrative Music and Medicine Grand Rounds Each August, from 2006 -2011

First Sounds: Rhythm, Breath and Lullaby (RBL): An International Summit for NICU Music Therapy August 2-4, 2010. This invitational Summit included 40 doctors, nurses, music therapists and psychologists who have been working in the NICU. We launched the official overture of an international alliance and planned for a 3 year training with international practitioners in NICU music therapy.

Hospice & Palliative Care Music Therapy Day April 9, 2010

A Music & Health Symposium for Musicians, Performing Artists, and Medical Professionals October 13, 2009

Music Therapy & Child Life: Effective Treatment Integration August 4, 2009

Music, Resilience, & Self Care: A Day Retreat May 12, 2009

The 1st International Music Therapy & Trauma Symposium: Bridging Theory and Clinical Practice June 9 -10, 2008

A Symposium on Music, the Breath & Health: Advances in Integrative Music Therapy January 28 - 29, 2008

A Music & Health Symposium for Musicians, Performing Artists, and Medical Professionals May 14, 2007 9-5 PM NICU Multi-Site Training August 28 - 29, 2006

A Symposium on Music Therapy at the End of Life March 1 - 2, 2004

Caring for the Caregiver: A 9-Week Training in Music, Healing, Grief and Trauma January - June, 2002

Music Therapy in the NICU December 15, 2000

The 1<sup>st</sup> Music Therapy & Pediatric Pain Symposium September 22 - 24, 1997

#### Appendix B

Music Therapy and Pediatric Pain Joanne Loewy, Editor, Cherry Hill, NJ: Jeffrey Books

Music Therapy in the NICU Joanne Loewy, Editor, Satchnote Press

Caring for the Caregiver: The Use of Music and Music Therapy in Grief and Trauma Joanne Loewy & Andrea Frisch-Hara, Editors, Washington, DC: AMTA

Music Therapy at the End of Life Cheryl Dileo & Joanne Loewy, Editors, Cherry Hill, NJ: Jeffrey Books

Mass Trauma and Violence: Helping Families and Children Cope with "Music Therapy to Help Traumatized Children and Caregivers" Joanne V. Loewy & Kristen Stewart in Nancy Boyd-Webb, Ed., Guilford Publications

Music, the Breath & Health: Advances in Integrative Music Therapy Ronit Azoulay & Joanne Loewy, Editor, NY, NY: Satchnote Press

Music Therapy & Trauma:Bridging Theory and Clinical Practice Kristen Stewart, Editor, NY, NY: Satchnote Press Music & Medicine: The Development of an Integrative Approach to the Application of Music and Music Therapy in Medical Settings | 69



### Articles – Part Two

• In Between: Music Therapy with Inpatients Awaiting a Heart Transplant

Cheryl Dileo and Michael Zanders (USA)

- Music for Bridging the Gaps in Cancer Care Patravoot Vatanasapt (Thailand)
- A Long and Winding Road: Musicing Along with Children with Cancer Through Their Journey Mayra Hugo (Uruguay)
- Music Therapy-Based Mechanisms for Coping with Stress and Pain Suzanne Hanser (USA)
- "Yes, I Can Learn!" Blending Music Instruction into Music Therapy

Kana Kamitsubo (USA)

# In Between: Music Therapy with Inpatients Awaiting a Heart Transplant<sup>1</sup>

Cheryl Dileo<sup>+</sup> and Michael Zanders<sup>++</sup> (USA)

#### Abstract

Individuals who are in heart failure and who are inpatients waiting for a heart transplant face many challenges. In this article, the authors describe these challenges and how patients are supported through the use of music therapy. Case examples are provided to illustrate the various uses of music therapy.

Keywords: Music Therapy, Heart Failure, Heart Transplants

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Originally published in C. Dileo and J. Loewy (Eds.) Music Therapy at the End of Life. Cherry Hill, NJ: Jeffrey Books. Published here with permission of the publisher.
#### Introduction

You're here in my heart, and I know that my heart will go on (Theme from the Titanic) They call it the "Heart Failure Hotel." It's the 7<sup>th</sup> Floor of a large university hospital, and a prominent heart transplant center. Various life journeys have brought the hotel's guests here: a congenital heart defect, chronic heart problems, a series of heart attacks, a simple virus, chemotherapy. Whatever the reason, their present situation is the same at this hotel: their hearts are broken, and they wait for a heart transplant. Most need mechanical devices, such as a left or right ventricle assist device to stay alive. Most realize that their stay is indefinite, for they cannot survive at home without the intensive medical care that the hotel provides. Some realize that this hotel may be their last stop in life.

The grim reality is ever-present: there are not enough hearts available for all 20-30 guests. Also, they face a strange paradox: they must be sick enough and their medical status urgent enough to allow their name to be at the top of the transplant waiting list, but they cannot be so sick that their other organs are also failing, rendering a heart transplant an inevitable failure. Moreover, even with a heart transplant, a good number will have complications and die anyway. The rest who survive the transplant will face a lifetime of anti-rejection drugs, constant monitoring for infection and other lifestyle modification.

So they wait, day-to-day, and month-to-month. For some the wait is short, i.e., several months. For others, because of blood type or various medical reasons the wait can last over a year.

These guests are young and old alike, all races, nationalities and creeds. They can't leave the hotel for a visit home, even for a day. It's impossible for them to even leave the floor to go outside the hospital without resuscitation equipment accompanying them. Their world is an artificial, oppressive and constricted one. Their existence can best be described as "in-between" life and death. What sustains them? For each, the details are different, but for most it is the same: love and spirit.

We are their music therapists. We enter the hotel every Wednesday morning at 9:30 very tentatively-never knowing who has received a heart, who may have been moved to intensive care, who may have been taken off the waiting list and sent home, or who may have passed away. We are daunted by these patients' immense issues and needs (Tables 1-4). However, we bring only our instruments and ourselves - the things we have to offer.

Table 1. Patients' Physical Needs

To Remain as Healthy as Possible (Diet, Medication, Sodium Intake, Exercise, etc.)
To Maintain Energy Levels
To Reduce Excessive Automatic Reactivity
To Comply with Medical Regime
To Endure Constant Medical Testing
To Reduce Pain

#### Table 2. Patient's Psychological and Coping Issues

Depression	Anxiety
Guilt	Impatience
Anger/Resentment	Uncertainty
Medical Crises	Medical Regime
Remaining in Touch with One's Self	Loss of Control Over Lives
Need to Accept Vulnerability	Fears of Future
Hoping for life/Facing Death	False Alarms
Loss of Fellow Patients	Loss of Transplant Status
Physical, Financial, Social Looses	Artificiality of Environment

#### Table 3. Patients' Spiritual Needs

To Find Meaning in Their Experiences
To Prepare for Life
To Prepare for Death
To Trust in Something Beyond Themselves
To Find Hope
To Be At Peace

#### Table 4. Patients' Social Needs

To Maintain Contact with Family/Friends
To Receive Support from Hospital Staff
To Give/Receive Support from Fellow Patients and Create New Relationships
To Have Their Stories Heard
To Give and Receive Love
To Feel Needed

Each week, we offer a group music sessions at 11:00. We go to each guest's room to invite him or her personally to join us. It takes courage to enter each room—to see the tubes, medical equipment, blood draws, and even more so, to face our patients' deteriorating conditions, depression and sometimes despair. The sources of distress at this hotel are many. We spend a few minutes with the guests, checking in on how they are that day and what has happened during the past week. Some greet us with enthusiasm...some not. We understand.

Sometimes there have been false alarms. A heart had become available, the patient had been prepped for surgery, but the heart was not considered viable. Spirits are very low when this happens. What happens to one guest affects all.

When another patient receives a heart, there are indeed mixed feeling, i.e., of joy for that person, but questions of "why not me? I've been waiting longer." The darkest moments of all are when a fellow guest receives a heart, but does not survive. Despair sets in, and questions of "Will this happen to me?" or "Why am I waiting here if I will die anyway" become apparent on everyone's face. We spend a bit more time with the new guests, assessing their interest in and history with music, their medical status, and their resources for social support. We offer a private music therapy session according to their needs and interests or invite them to attend the music group. For some new guests, there is hope and optimism for receiving a new heart and returning home to live a better life. We know, however, that hope and optimism will eventually fade as their days of waiting turn into months. But we are still there with them no matter what.

These are the stories of their journeys. They are stories of extraordinary courage and valor. It is our privilege to share them with you.

#### The Patients and the Musical Instruments

#### a. Daniel

Daniel was one of our first patients on the units. He was waiting for both a heart and kidney transplant, was critically ill, and needed dialysis in addition to all the procedures necessary to sustain his heart. He was warm, engaging and enthusiastic about learning to play a few songs on the guitar—one of his life's dreams. We shared some touching moments together as the guitar became for him a metaphor of hope and of moving towards the future beyond the hospital. His critical condition took a second place to his healthy, creative and expressive parts, and his wholeness as a person.

He learned to play two of his favorite songs rapidly using an open-tuned guitar. His eyes were bright and alive as he managed to change chords and sing, and we sang enthusiastically and joyously with him. The music and the presence of the therapists created the space for him to talk about many issues: his life before and his life in the hospital, the love he shared with his family, and how his illness had been devastating for them emotionally and financially. He performed his songs and played the guitar for his loved ones when they visited. He told us that sang together and cried with joy.

With every subsequent visit, we saw that Daniel was becoming weaker, eventually becoming unable to play, but still singing his songs, as we played the guitar for him. We were fearful of losing him, but his hope for a transplant was ongoing. We worried that each visit with him would be our last, and we wanted to share with him what our experience with him had meant to us. One of the authors (MZ) asked if he could sing a song for him, and Mike selected Elton John's song, Daniel.

I can see Daniel waving goodbye. It looks like Daniel, must be the clouds in my eyes. We never saw Daniel again, and that song to us will always be for him.

Our work as music therapists at this hotel is unlike any other we have done. It presents a continual dichotomy: how do we instill and support hope and courage for living while at the same time prepare our patients to die? Taking one direction or the other ignores the realities that surround us. Working with patients who are "in-between" also affects us profoundly as human beings. We talk between us, struggle with uncertainty, grief and anger, and try to come to terms with our feelings. We vow to continue, realizing that we may never find the answer for our patients or ourselves. We know above all that it's worth it.

#### b. Linda and Gertrude

Linda was a heart failure patient in her 20s with a young, autistic son, Tommy at home. She and Gertrude, a middle-aged patient, were friends at the hotel and came to music therapy sessions together. Linda wanted to learn to play the guitar. Gertrude could play some keyboard but wanted to practice so that she could surprise her family with music when she left the hospital. Both wanted to use music and the instruments to help them through their current situation.

Linda learned chords and songs on the guitar quickly and practiced diligently. Playing gave her a respite from the stressors of being hospitalized and from the monotony of the long days. During music sessions, Linda spoke of her great love for Tommy, her guilt for being in the hospital and for not being at home to attend to his needs. As his mother, she of course knew him best and was the one he relied on. She also knew she could not be at home for his upcoming birthday and experienced a great deal of anguish in not being able to organize a party for him. However, she found a solution through the music.

On his birthday, Tommy visited Linda in the hospital. She took her guitar and played and sang *Happy Birthday* to him. The look on his face was unforgettable, as he was amazed with his mom's guitar playing and singing. She sang and played the birthday song over and over for him, and she showed him how to strum the chords. He managed to sing several words of the song with her. Her musical gift to him was beyond measure, and they shared a moment of love and intimacy.

The musical instruments we use at the heart failure hotel have taken on special significance, i.e., as metaphors of hope for the future and as a means to share love and intimacy with others. However, we were unprepared for another, very unmusical meaning of the instruments. We sometimes left an instrument in a patient's room so that he or she could play when we were not present. Such was the case for Glen, a patient who had been a professional musician and who had been using the keyboard to stay connected to his former life and identity. For one particular week, we left the keyboard with Glen as usual, and the next day, he received a heart transplant. The nurses moved the instrument to Linda's room for safekeeping. That day, Linda was called down to surgery to receive a heart. The nurses then moved the piano to Gertrude's room. The next day, she received a heart transplant. Obviously, this was nothing more than coincidence, but all of the guests at the hotel was asking us ask to have the keyboard in their rooms.

#### The Patients and the Songs

As mentioned previously, weekly group sessions are held for all ambulatory patients who are interested. Songs have taken on a variety of meanings in this context. We have found that something as simple as being together, selecting favorite songs and singing in an ensemble has been responsible for many unique, unforgettable and healing moments, filled with laughter and tears; spirit and love.

There aren't many opportunities or places to express deep feelings at the hotel. Guests inevitably want to protect their families from their intense emotions. The guests know that it's difficult enough for their families to see them as patients, to suffer to consequences of their absence at home, and to wait with them. They don't want to add greater emotional burden.

Patients are reluctant also to share deep and intense feelings with medical staff. There are very stringent criteria for remaining on the waiting list for a heart. Emotional stability is one of these criteria, and patients fear being removed from the list, is they are perceived as unstable As Gertrude remarked, "music therapy is the only place where we can express the range of our feelings with trust and support and without concern."

Until we began working at the hotel, we never realized how prevalent the word, "heart," is in popular songs. Its metaphors for these patients are profound (see Table 5). We were not surprised then when guests selected a theme song for the hotel: *My Heart* Will Go On.

Table 5. Metaphors of the Heart

The Heart Represent Core Intra- and Interpersonal Identity Issues
The Archetypal Imagery of a Closed Heart is Associated with Heart Disease
The Heart is the Most Valued Organ
Damage to the Heart has Marked Repercussions Psychologically and Socially
The Heart's Story is Also One's Life Story

#### a. Gertrude

Heart metaphors in songs, however, initially were sobering to us in this setting. In one session, Gertrude requested the song, *I left my heart in San Francisco.* We were naturally a bit concerned about the potential impact of these lyrics for a pre-transplant heart patient, and were also cognizant of patients' extreme physical and emotional vulnerabilities. However, we took the risk and honored Gertrude's request. After singing the song, she spoke tenderly and sadly of her guilt in wishing for a new heart so desperately, and at the same time realizing that someone special and loved one would have to die for her to receive it.

There were countless other unforgettable moments when songs from the heart were incredibly meaningful, poignant and sustaining.

#### b. John

John was the "mayor" of the heart failure hotel. He set the hospital's record for a wait for a heart: 19 months. John was a very intelligent man in his 60s who had sung semi-professionally during his college days. That's where he met his wife, Helen, a professional musician. Songs and music had been in integral part of their relationship. They had developed a repertoire of song duets that they sang readily in sessions. Helen often brought her instrument with her to the music therapy group, and this gave her great satisfaction and comfort. Helen was almost always at John's side. She literally lived at the hospital, "reverse-commuting" as she called it. They were a close couple, but they had a difficult time expressing feelings to each other, except through music. It was there that the frustration and rage over their situation emerged—in bickering song duets. We witnessed, supported and validated these musical expressions. However, it was also in the music that their tenderness for each other could emerge. One session stands out. It was Valentine's Day, and John asked to sing a solo in the group for Helen. He sang the following words with all of his heart: My Funny Valentine...you make me smile with my heart... Don't change a hair for me, not if you are for me. Stay little Valentine stay. Each day is Valentine's day.

Helen was overwhelmed with emotion. It was a moment not to be forgotten, and it provided all the love needed for them to go on in their situation. John did get a heart soon thereafter.

#### c. Clariece

And there was also our patient, Clariece, and her husband, Henry, who celebrated their 40<sup>th</sup> wedding anniversary in the music therapy group to the tune of their favorite song played and sung by tearful music therapists: When I fall in love, it will be forever, or I'll never fall in love.

Through this music, they were able to call upon memories of their 40 years together, some of the good times, and some of the bad times, and to realize the richness of the life and love they had shared and continued to share.

Besides validating love and inspiring hope, songs selected by the patients tell us a great deal about how they are coping, what they believe, and what is getting them through this horrific experience. We are thus able to understand their resources, or lack thereof, and either validate or assist them in identifying strategies to continue with their wait for a heart transplant.

After songs are sung, patients open up to their feelings, connect with themselves and each other and share their stories of past and present. We have identified three predictable stages of this process (Table 6).

	Table 6.	Stages	of the	Music	Therapy	Process
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Opening the Heart to Music Opening the Heart to Self

Opening the Heart to Others

#### d. Gertrude

Gertrude's condition was obviously deteriorating and her hope was noticeably wavering. We asked if there was a song she would like to sing. Without hesitation, she stated. "Yes," and proceeded to sing these words: *Then sing my soul, my Savior* 

God to Thee, How Great Thou Art, How Great Thou Art. She sang the words tearfully and fervently. When she finished she said, "I'm okay now."

#### e. Angela

Angela, a Latino patient in her 50s was an enthusiastic member of our group. Prior to sessions, she went from room to room to recruit participants. A determined woman with a deep love of music, her song requests in the group made her coping mechanisms transparent. She would often request this song: ...when the dawn breaks tonight will be a memory still, and the new day will begin and this song: You can say I'm dreamer, but I'm not the only one. I hope someday you'll join us, and the world will live as one.

After she sang these songs, she spoke about her resolve and determination to live, and inspired all in the group to continue hoping for a second chance at life.

#### f. Tonie

Tonie, a woman in her 40s, was intensely spiritual, and with a quick and lively sense of humor. She was loved by patients and staff alike and was a strong presence at the hotel, giving freely of herself to help fellow patients. She often requested spiritual music to reaffirm her beliefs and to support other's beliefs'. In her last session with us, however, she selected the song: The Gambler. You gotta know when to hold 'em, know when to fold 'em. Know when to walk away. Know when to run.

This choice was unusual for her, and we laughed with her about it. Shortly thereafter, she was called to receive a heart. During the surgery she suffered a stroke and passed away. Her song was an eerie foreshadowing of her gamble in waiting for a heart, and in some way, she was directly acknowledging the hotel. After her passing, her husband revealed that, in spite of the negative outcome of her situation, she had told him that she had never regretted her decision to undergo a heart transplant, as her experiences with other patients had been transformational for her.

#### g. Charlotte

Charlotte was another patient who waited an extended time for a heart. During one of her first music therapy groups, she requested this song: Blue skies, smiling at *me*, nothing but blue skies do I see.... Gray skies, all of them gone, nothing but blue skies from now on.

We sang this song with and for her, and suddenly to her own surprise, she was flooded with very specific memories of earlier days when she had accompanied her grandson to school every morning. She and he would sing this song together, as they walked. She recounted to the group the feelings she had in giving her grandson hope and optimism for life through these lyrics. She was able then to connect this same hope and optimism to herself while waiting for a heart.

During one period of time at the hotel, the composition of our weekly group was very different. Every Wednesday, 6-7 men in their 50's and 60's attended. Most

were working-class men and of a generation and culture that did not easily share feelings. in spite of this, they found music to be the way for them to relate to themselves and to each other, and in the words of one patient, "Wednesday don't come around quickly enough for us." These men would have no difficulty asking for the precise songs they wanted/needed to hear.

#### h. Robbie

Robbie, a gentle man in his early 60's, was joined one day in the group by his daughter, he requested this song: Oh Danny boy, the pipes, the pipes are calling you... from glen to glen and down the mountainside. The summer's gone, and all the leaves are falling. It's you, it's you must go and I must bide.

Indelible in our memories is the image of him putting his head on his daughter's shoulder, both of them weeping silently and deeply in anticipatory grief. He had seemingly chosen this song to prepare his beloved daughter for his not being able to share the future with her. As we sang, all of the other men in the group validated their experience and wept silently with them. No words were exchanged. They shared this painful moment together, and their sense of unity was in, itself, healing for them.

#### i. David

David, the usually vocal leader of this group of men, was quite despondent at one group session, and spoke very little. One of the authors (MZ) met with him privately following the group to discuss the reason for his apparent isolation and sadness. David cried and said that he couldn't stand the wait any longer and was planning to go home, to give up hope for a new heart, and to die. The therapist held his hand, and the two shared a very special moment of silent closeness. The following week David was till at the hospital, and the therapist asked him if he had made decision about his future. David said that music therapy and his wife were the factors that had given him the courage to remain in the hospital and to not return home to die. David did receive a heart soon thereafter. Very sadly, however, several months later, he returned to the hospital with advanced cancer. We provided his last music therapy session beside before he died.

#### j. Loretta

Loretta was a young woman who was having difficulties enduring the wait for a heart. She would not comply with the hotel's prescribed medical regime, and there was concern that she would lose her status on the waiting list. She came to the music group and was rather reticent to select a song. Finally, however, she discovered the song that felt right to her: I believe in can fly. I believe in can touch the sky. I think about it every night and day. Spread my wing and fly away.

After she sang it, she talked about how much she missed her baby daughter, and how much she wanted to return home. At the same time, the song allowed her to feel hopeful that she might have a relatively normal life again with her family one day. She came to the group again several months later, right after she had received a heart transplant. She was getting ready to leave the hospital, and she requested the same song. After singing it, she talked about how she had survived the wait, and that the music had been a help in allowing her to "fly" away from the difficult circumstances. She was now ready to fly into the life she had imagined. Her belief in this, as inspired by this song, was what sustained her.

#### k. Kyle

Lastly, there was Kyle, a remarkable young and intelligent man in his 30's. Kyle had a very keen sense of humor, often trying to challenge the therapists' musical skill with song requests such as *Flight of the Bumblebee*. His spirit and positive attitude inspired all.

We're not often at the hotel when a heart becomes available, as this often happens in the middle of the night. At the hotel, there is a ritual for patients who have been selected to receive a heart: No matter what the hour, all the patients at the hotel are awakened, and they go as a group to the potential recipient's room for a group prayer.

On this day, we were informed when we arrived that Kyle would soon be receiving a transplant, and the transplant team was on its way to harvest the donor heart. We knew Kyle would be anxious, so we entered his room and asked if he would like some music. He requested Amazing Grace, and the therapists stood at his bedside and prayerfully sang the first 2 verses of this song for him. Kyle's eyes were fixed on something far away from and beyond us, as if he were in a trance. After the first 2 verses, one of the therapists (CD) felt that the song was incomplete, and intuitively and spontaneously sang another verse: Through many dangers, toils and snares I have already came. 'Tis grace hath brought me safe thus far, and grace will lead me home.

It was profoundly intimate moment, one that we'll never forget. We left the room, wishing Kyle luck and thanking him for being a member of our group. We told him that, although he would be getting a new heart, his old heart had been wonderfully loving and generous. During Kyle's surgery, blood clots required the amputation of both his legs. He died shortly thereafter. We hoped that the last song we shared with him accompanied him through this transition.

#### Conclusion

It's difficult to summarize all of our experiences at this hotel into one neat intellectual package, as music therapy with these patients "in-between" has often been ineffable. However, we can offer some broad reflections on the power of music therapy in this setting:

Playing an instrument serves as a metaphor for hope, of going on in life.

Music can access what is still healthy, creative and expressive in our patients, no matter how ill they may be.

Being together in a music therapy process elicits strong emotional ties of love and support.

Music choices reflect where patients are, what they believe and how they are coping; they also provide inspiration for alternate means of coping.

Music provokes memories of the past and summons forgotten resources for survival.

Music therapy facilitates the sharing of past and present stories that prevent the patient from falling out of life and in to the illness.

Music therapy enhances the communication of complex feelings when words are not capable to do so.

Music therapy provides the space for the expression of deep and intense emotion in a way that is safe for the patient.

Music therapy validates ineffable experiences.

Music therapy summons and supports spirituality and hope, providing the means for an individual to be sustained.

Music therapy allows transcendence of horrific circumstances.

Music therapy facilitates the creation of beautiful moments that are memorable within a life's story.

We view our work as occurring on a heart to heart basis. The essence of our work is in allowing our hearts and our music to enter the experience of patients, and to resonate with their hearts. We believe that it is only through this type of connection that healing occurs. We do this knowing full well the risks involved: that our own hearts will absorb patients' suffering and pain. But, as mentioned previously, it's well worth this risk.

At the same time, we've had no greater inspiration in our lives than from these unique and loving individuals, whose hearts are bigger than we can adequately describe. They've taught us how to live better and more fully, and how important each moment of life is. They've taught us the necessity of creating beautiful moments in every day with those we love. They've inspired us to be courageous and to take risks. They've nurtured our appreciation for all that we have. They've challenged us to embrace deep spiritual beliefs. And they've given us a new and deeper appreciation of the power of music to transform. We know for certain that our own hearts will never be the same.

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# Music for Bridging the Gaps in Cancer Care

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#### Abstract

Cancer is an increasing burden in health care worldwide. With growing knowledge and breakthroughs in oncology, the treatment and care of cancer patients has become more sophisticated, with promising results. However, the gaps in cancer care still exist. This article described the opportunities to use music with cancer patients at the university hospital of Khon Kaen, Thailand, in order to improve their quality of life. Culturally appropriate music was applied and various music activities were conducted to promote integrative care and rehabilitation for cancer patients. Moreover, an unexpected benefit of the music therapy program was also encountered, which can address some weak points in medical education.

Keywords: Music, Music Therapy, Cancer, Thailand

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#### Introduction

Sir William Osler (1849 - 1919), the father of modern medicine, quotation "The good physician treats the disease; the great physician treats the patients who has the disease." (Osler 2003)

In 2008, an estimated 12.7 million new cancer cases and 7.6 million deaths from cancer were reported worldwide (Ferlay et al. 2010). Moreover, the incidence of cancer has been increasing worldwide due to the growing world population, an increase in the proportion of the elderly in developed countries; and an increase in unfavorable behaviors or life styles toward cancer risks (Jemal et al. 2011). The primary goals in cancer control, therefore, have focused on diminishing the occurrence and mortality rate of cancer, while prolonging the survival of the patients. Growing research and scientific evidence in cancer has brought about sophisticated treatments turning out more favorable results. Unfortunately, no dramatic change in cancer control has been achieved for most cancers in most places around the world (Boyle and Levin 2009). Therefore, besides curative aim, attempts have been made to improve the patients' quality of life. This goal sounds simple and sensible but it is practically challenging to be achieved in current clinical practice, where medicine is a jigsaw of specialties and subspecialties. As a result of this system, gaps in health care leave patients suffering from the disease per se and the side effects of treatment. Unfortunately, in a recent study reviewing the video-records of oncologists speaking with their patients, most emotional expression from the patients was overlooked, with only 22% of empathetic opportunities being grasped by the oncologists (Pollak et al. 2007).

Music is an influential media affecting human psychological and physiological response. Therefore, it has been widely used in health care as either music therapy (by trained music therapists) or music medicine (mainly by medical personnel). Growing scientific evidence has supported the favorable effects of using music in cancer care. A systematic review in 2011(Bradt et al. 2011) found benefits from music on anxiety, pain, mood, and quality of life in people with cancer, with small reductions in heart rate, respiratory rate, and blood pressure. Therefore this article aims to present a model of music usage with cancer patients at Srinagarind Hospital, Khon Kaen University, Thailand, in order to bridge the gaps in current clinical service.

#### Cancer Pain and Music Listening

Pain is a symptom most commonly found in cancer patients caused by either cancer or medical intervention. About 56% of cancer patients at our university hospital presented with cancer pain. Unfortunately, around one-third reported that they had never received pain control prior to admission (Vatanasapt et al. 2008). Besides implementing clinical practice guidelines for cancer pain management in the hospital, non pharmacological approaches, including music, were applied.

Conforming to the culture, the music program, was initiated by nurses in the cancer ward, using recorded traditional instrumental music from northeast Thailand (known as Isan), where music is relevant to the social and religious life of the patients. The songs were selected based on pleasant melody, soothing timbre, regular rhythm, and tempo between 60 - 90 beat/minute (approximate to the heart rate). The randomized controlled trial was conducted in this setting using Isan music for 30 minutes of listening through around-the-ear headphones, twice a day. This showed a significant reduction of pain and anxiety when comparing the music arm to a control arm (Juangpanich et al. 2012). However, as patient preference is a key factor, we have also developed sets of soothing music in different genres as choices for the patients to individually select.

#### Speech Rehabilitation and Breathing Exercise

Cancer involved speech organs, for instance the larynx(the voice box), and the hypopharynx(the throat behind the voice box), need extensive rehabilitation to regain verbal communication. As over eighty percents of the patients present in advanced stage requiring surgical removal of the entire larynx (laryngectomy), three options are available for postoperative speech rehabilitation including esophageal speech, vocal prosthesis, and electrolarynx. In Srinagarind Hospital, we have mainly used esophageal speech, as it is appropriate in limited resource situations and is more practical to handle in daily life. However, it requires a specialist, i.e. speech pathologists, great patient effort in developing this skill, and a well organized training program to allow sufficient long term cooperation.

The active music session was used in combination with breathing exercises during the monthly speech training program. The musicians improvised on soothing melody relevant to their breathing and movement. It was usually conducted prior to the esophageal speech training session. The music was also used to motivate the patients to deliver the speaking voice from the esophagus. At the end of the training day, we entertained with a music performance allowing the patients to join using their burp sounds and esophageal speech.

#### Multidisciplinary Team and Arts 4 'Mee Camp

In addition to speech problems, the patients with laryngeal cancer confront several obstacles. Incapability of saying words complicates their simple daily life, and can turn family leader into dependent child. As a result, it is not uncommon for them to develop major depression, anger, or even aggressive behavior, which also brings about relationship difficulties in their family life. We, therefore, set up a multidisciplinary team for integrative care and rehabilitation, including head and neck surgeons, speech pathologists, physical therapists, nurses, and social workers. Alongside regular health check up, speech training, physical rehabilitation, and social security; psychological assistance is delivered through peer support (laryngectomee society) and religious activities. However, as verbal communication is infeasible in most cases, it was certainly too challenging for them to express their hardship in words. As a result we have sought to apply other routes as a pipeline for psychological ventilation, and have developed the "Art 4 'Mee camp"- an integrative art and music therapy program designed especially for laryngectomee. It is an outreach activity that gathers together laryngectomized patients, their care givers, and a multidisciplinary team of medical personnel. All participants engage in all activities without being labeled as patient, nurse, or physician, and unnecessary speaking is eliminated.

The music program is mainly free improvisation through musical instruments and movement. The creative music making was also applied for participants to create and perform music together (using mainly percussion instruments) (Cahn 2005). This is not only for the purpose of entertainment, but is also a safe zone allowing them to physically, mentally, and emotionally express through musical instruments, while maintaining connection to others within the group. They develop a sense of being part of the group and a sense of achievement as the music is created.

Besides music, we conducted an art therapy program where participants were given a blank sheet of paper, and various materials used for drawing, painting, printing, cutting, tearing, or gluing. As it was uncomfortable for some patients to freely do their art works, the facilitators introduced art technique and allowed them to explore each one before producing their own works. At the end of the day, we set up an art exhibition, and allowed the participants to share their feelings. On the center of the exhibition room, the empty "tree of hope" was placed to welcome the "leaf of sharing" written and posted by the participants. The tree reflected not only the feelings and thoughts of people, but we also learned that this camp eased their psychological pain. One respondent admitted his prior intention to commit suicide during his most depressive period, but now he was not feeling alone and felt encouraged to continue living his life.

In the camp, we also provided modified yoga class, Buddhist sermons, and shared experiences on laryngectomee care. Moreover, the otolaryngology residents (specialist trainees), who volunteered to participate in the camp, stated that the lessons learned from the camp were beyond what they had learnt in medical school. Although they knew how to treat the cancer patients surgically, and had even been involved in the treatment for some of the participants, this camp allowed them to feel and understand the experiences of the patients they usually overlooked. Empathy is a skill physicians need but it is often absent in medical curricula and it is unlikely to be taught through lectures. A previous study showed that empathy not only made a doctor likable but improved the quality of care they provided (Buckman, Tulsky, and Rodin 2011). A positive neural substrate was also found in the brains of physicians who empathize. There is, however, still a major lacunus in medical education on how to teach empathy for the medical students. It has been established that music making with others engages the brain regions largely overlapping the "Mirror Neuron System", the key area responsible for imitation(Wan et al. 2010). As empathy is generated by inner imitation (Carr et al. 2003), it is a challenging question to research how music can enhance empathy in human beings.



Figure 1. Music & movement activity and the tree of hope at the Art 4 'Mee Camp

#### Music Medicine and Collaboration

Currently, there are two disciplines using music for medical purposes: music therapy and music medicine. The prior is defined as implementation of music intervention by a trained music therapist, through therapeutic process with the use of personalized music experiences, while the latter is mainly passive listening of recorded music offered by the medical personnel (Dileo 1999). However, in practice, regardless of the therapists, there are no clear boundaries of using music in medicine between the two entities.

In Thailand, where music therapy has been newly developed with limited resources and personnel, , the use of music in medicine is growing dramatically, in parallel with the training of more music therapists. To effectively implement this fascinating tool, it is recommended that the users

1. collaborate between the medical personnel and music specialists, e.g. music educators, musicians, or ideally music therapists.

2. review current available scientific evidence in music and medicine to broaden the perspective in using this intervention appropriately.

3. if feasible, research on using various kinds of music in different health situations or populations. Plentiful questions in this field are waiting to be answered for the future growth of a high potential tool called "music."

#### Conclusion

Cancer is a major health problem worldwide. Beyond its curative treatment in order to gain survival of the patients, attempts have been made to elevate their quality of life. Music is potentially an effective tool to achieve this goal in cancer care. The model in Khon Kaen demonstrated how music can be deployed to serve various goals in health care and rehabilitation of the cancer survivors. Moreover, music provided a safety zone for the participants to freely express their nonverbal messages while maintaining bonds to the peers. Finally, we discovered an unexpected outcome for the medical students to experience empathy through music and art activities. This will raise a question for further research to enhance the utilization of music in medicine.

#### Acknowledgements

The author would like to acknowledge Assoc. Prof. Dr. Benjamas Prathanee for her leadership in developing a well established esophageal speech training program; Mrs. Ubon Juangpanich for initiating music listening program in cancer ward at Srinagarind Hospital; Dr. James Mitchell for his English editing of this manuscript; the Faculty of Medicine, Khon Kaen University, for grant support of the Music for Health Research Group; and finally to the International Association for Music and Medicine (IAMM).

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# A Long and Winding Road:

### Musicing Along with Children with Cancer Through their Journey

Mayra Hugo<sup>+</sup> (Uruguay)

#### Abstract

The WHO defines pediatric palliative care as a global model of attention to children with a disease that limits and/or threatens their life and their family life. This care should start with the diagnosis, even if this doesn't imply a bad prognosis in a short time. It's a comprehensive care strategy and philosophy and a life-affirming approach.

The music therapy approach is focused in helping children to walk through their disease contacting them with health, with empowerment, with life. Making music in different moments and scenarios, along with a supportive and empathic relationship, helps them find joy, meaning and hope.

This paper will show different moments of this journey, and will try to convey the intensity and the richness that, as music therapists at the Pelluffo Giguens Foundation since 1999, we receive as music therapists sharing musical experiences with these children.

Keywords: Cancer, Pediatrics, Music Therapy, Musicing, Journey

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#### Introduction

While working on the title of this paper, I became aware of the dimension of my own journey as a music therapist. The roads I have taken have also been long and winding. They have brought me here, more than 10.000 miles away from home, to a situation I never dreamt of: being part of this conference and presenting my humble experience in working with children with cancer before such a qualified audience. Just amazing!

I would like to share with you the peculiarities of my work with these Uruguayan children, which are, of course, dyed with the colors and sounds of the culture I come from.

Uruguay is a small country, rather well-known lately because of football and famous football players. I am from Montevideo, it's capital city, where almost half of the population of the country lives I have been a music therapist for almost 20 years, and ever since the day I chose music therapy as a profession, my job has involved working for the spreading and acceptance of music therapy in the country and for the creation of a music therapy training course as part of college education, what we achieved three years ago. This is why our work has always been focused on assistance. We will not have researchers until the end of next year, when the first class of music therapy students graduates. These new professionals will allow us to give a big qualitative leap.

Despite this complex reality, it has been 13 years now since the Oncology Pediatric Center of the public hospital of Montevideo opened up its doors to music therapy, inviting us to be part of its team of professionals. This center provides health care assistance and social support to children from all over the country for free and with the support of the Peluffo Giguens Foundation, has led Uruguay to being the Latin American country with the lowest cancer mortality rate for children under 14 years old. The Center shares the "palliative care philosophy", proposed by the World Health Organization: a global model of attention to children with a limiting or threatening disease, starting with the diagnosis, even if this doesn't imply a bad prognosis in a short time. It is a comprehensive care strategy and, above all, a lifeaffirming approach.

I firmly believe in human musicality – the idea of **Homo Musicus** proposed by Zuckerkandl- which I first heard from Dr. Clive Robbins, when we were blessed by his visit to our country eight years ago. *Man as musician; the being that requires music* to *realize itself fully;* musicality as an essential attribute of the human species. This is what inspires me each time I introduce myself to a child arriving at the hospital. My purpose, my intention, will be to use music as a means for his betterment, by helping him to get in touch with his musicality, with his musical being.

The children we work with are very different in terms of personal features, age and socio-cultural background. Throughout their journey, they need to face a lot of hard issues, such as:

- The moment of diagnosis
- Different stages of treatment
- Invasive procedures all along their treatment
- Surgery
- Pain suffering and management
- Chemotherapy side effects, as nausea and vomiting
- Hair loss and other body changes
- Management of other patient's death
- Relapses

In this particular context, singing, improvising and musicing in different moments and scenarios along with a supportive and empathic relationship helps to find joy, meaning and hope. I share Rudy Garret's ideas about music as a means and as a medium. He states that the motivation for children engaging with music has to be the musical activity in itself. The flexibility and richness of the musical experience will facilitate participation. Eventually, almost every child will respond to the invitation to meet in the music. In this encounter, in this relational dynamic is where the work will take place, where we will always find something unpredictable and surprising.

The Plurimodal Approach, created by Diego Schapira in South America, provides an excellent framework within which I can display this philosophy. I find it versatile and very adequate for medical settings, where we need to adapt to different and constantly changing situations. It provides a clear and flexible referential framework, and a broad collection of musical tools, classified around four axes:

- 1. Working with songs
- 2. Therapeutical musical improvisation
- 3. Selective use of edited music
- 4. Receptive techniques

These musical resources are always available. We can sing, improvise, listen to music, search on the internet, produce a songbook, or whatever musical activity meets the needs of patients. Sometimes interventions aim at helping a child to face and process, through an improvisation, an invasive procedure which causes him a lot of un-controlling fear and distress. Or we can also have a sustained presence during long processes, as for example, with two girls I worked with, accompanying them with songs in various ways, along the different stages of their disease and treatment, all the way from their diagnosis until their death. Other times, interventions are just for the fun of making music together, while stimulating different cognitive and expressive skills of children, or can also be singing along, for example, with a group of mothers and their sick daughters, as a way to welcome an arriving mother with her recently diagnosed daughter...Or these three adolescents, who, while having fun playing together, came up with this combative version of a popular song:

#### I Won't Give Up

If I ever I lose all the battles If I ever I sleep with loneliness If all the doors get closed And darkness won't leave me alone

If I ever feel scared of silence If standing up feels something hard to do If all my memories reveal And put me against the wall

I won't give up Standing up against everything I'll become iron, to harden my skin And though the winds of life blow hard I'm like the bending reed, That always remains straight

I won't give up, so I can stay alive I will bear the blows And I will never give up And though my dreams Break up into pieces I won't give up, I won't give up

Another piece of music I would like to share with you is the one composed by a 17 year old outpatient with a complex family situation, and an incredible musical talent. I decided to teach him how to play the recorder as a means to have something challenging he could do at home, while providing him with a meaningful relationship. He came back with this music, which he called "Bipolar day." He composed a beautiful melody, with two parts with different beats, which resemble two clearly different moods.

#### Singing – Expanding the Senses

Songs carry a message, which acquires a singular meaning for each person. Songs carry a musical meaning, or *musining*, as Ronaldo Millecco says. This word, *musining*, was coined by the Brazilian music therapist Clarice Costa.

Although children do not have the history of songs that we adults have, they quickly embrace the songs they resonate with; they get attached to them, loading them with *musinings*. Songs provide the possibility of getting closer to unconscious contents that eventually contribute to our insight, while stimulating different types of memory. At the same time, they elude defensive or resistant positions.

Hanna, an 11 year old girl, finds a way to ease her suffering as she resonates profoundly with the words of this song. She says: - I like this song, because, what it says, **is right**. I have bridges with my brother, my sisters, my great-grandmother, with my dog, .....and with my Mom. (She had died a year ago).

#### The Bridge

People on one side, And on the other side, people Who doesn't live here nor there, But on the bridge

On one side, work, On the other, relatives And that string of light That crosses continents

The bridge is made of air Has no color, is transparent The bridge that goes From your chest to mine Although you are not facing me

#### Conclusion

When musicing, there is a relationship of reciprocal benefit, which I find very nourishing for both, the patient and the music therapist. This is the most rewarding aspect of our profession. I feel it's a privilege to be there during those intense, highly emotional moments; to have the possibility of helping a child recover contact with his healthy side – enhanced through his musical being, and receive, at the same time, the joy and the richness of musicing together.

In this comprehensive approach, we also try to be present not only during difficult times, but also to children when they resume their regular lives, providing them with meaningful experiences which will help them get back on track. A group of recovered kids was invited to sing with a local band, called *La Saga*, a song that was composed and specially dedicated to children with cancer.

I Love You (Yo te quiero)

I want the farthest of your dreams The sweetest of your kisses 'n see you laugh when I laugh

I want to give you everything I've got The wildest of my dreams 'n celebrate I'm with you

I want light in your window 'n see the morning sun Protecting us from cold Let's go dance and sing together Let's be loud

I love you forever, I love you ´cause I love every little thing in you I love you forever, because I love Everything little thing in you

1, 2, 3, can you hear me? 1, 2, 3 Today I will sing a song 1, 2, 3, can you hear me, again? Today my heart will sing for you

2 and 2 is 4, 4 and 2 is 6 Today I'll give you what you ask for 6 and 2 is 8, and 8, 16 I'll sing for you

As Paul Nordoff said, "You will never have more to give a child than what you have within yourself."

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#### Appendix

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## Music Therapy-Based Mechanisms for Coping with Stress and Pain

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#### Abstract

This article describes three research investigations that focus on the effects of music therapy interventions with different forms of stress and pain. The first study involves music listening strategies for women in labor and delivery; the second tests the impact of eight music listening strategies on depression, anxiety, self-esteem and mood in clinically depressed older adults; the third utilizes a more active music therapy intervention, including music listening, improvisation/ active music-making, and songwriting, for women who have metastatic breast cancer. The results of these studies lend support to the use of easily-accessible music strategies in a variety of clinical settings. Implications for applying music therapy-based coping techniques for every day stress and chronic conditions are presented.

Keywords: Music, Coping, Stress, Pain, Childbirth, Cancer

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#### Introduction

As a music therapist who has practiced for more than 40 years, I have been in the privileged position of helping countless clients and patients deal with their various conditions and diagnoses, using music. My musical tools include singing, playing music, improvising, composing music, listening to music, talking about music, and interacting with music through dance, movement, visual art, and other media. My psychological tools include cognitive, behavioral, existential, gestalt and similar approaches to therapy that guide my process in applying music to meet the needs of those I serve. Over the years, I have come to specialize in working with people in pain and under profound stress, including women in childbirth, severely depressed and anxious older adults, and individuals who live with cancer. My focus on the use of music in medicine has enabled me to develop some unique evidence-based techniques that almost anyone undergoing stress or pain may utilize as coping strategies. This experience has generated theories that were translated into research hypotheses, and tested in rigorous experimental designs. The evolution of clinical protocols is summarized in this article through three such research investigations, as they have attempted to determine the efficacy of music therapy methodologies for coping with stress and pain.

#### Music for Pain in Childbirth

The pain of childbirth comes in the form of contractions that facilitate the journey of the fetus through the birth canal. During labor, abdominal contractions escalate in frequency, duration and strength, culminating in the transition stage of labor and the birth of the baby. These acute pains are, therefore, transitory and functional, but customarily continue for many hours during the childbirth process. Typical prepared childbirth methods include concentrating on a visual focal point and breathing intentionally in a steady pattern, in order to distract the laboring mother from the pain of contractions. Given the basic rhythmic nature of music and its ability to attract and regulate attention, it seemed possible that focusing on music could serve as both an auditory focal point and a cue for rhythmic and paced breathing. It was hypothesized that listening to music could facilitate childbearing in this way. The most potentially effective music protocol would utilize music that held meaning to the expectant mother, and could be accessed both at home during practice of prepared childbirth techniques, and while undergoing active labor in the hospital setting. It was determined that a music therapist would be engaged with the pregnant woman to help her identify music appropriate for labor, to observe her during practice sessions to document the influence of that music, and to attend labor and delivery, in order to assist in selecting the most potentially effective music.

To test the influence of this protocol, I, along with two music therapy colleagues at University of the Pacific, Sharon Larson and Audree O'Connell, recruited couples from prepared childbirth classes in Stockton, a city in northern California, USA (Hanser, Larson and O'Connell 1983). After agreeing to participate in the research, each pregnant woman and her coach met with one of us to develop a personal music plan for labor. For each woman, we created four categories for her favorite music to meet the following criteria: mood-elevating music, memory-evoking music, relaxing music, and energizing, attention-provoking music. We experimented with this music to determine whether each selection, indeed, had the desired effect, by asking each woman to practice the breathing techniques she was learning in class, accompanied by each piece of music she selected. Her music therapist observed her in the comfort of her home, and asked her to identify the thoughts, feelings, and images that she was experiencing as she listened. The therapist then ordered the recordings according to tempo, starting with the slowest and continuing with faster and faster tunes. This resulted in a complete package of musical samples, sufficient for several hours of playing time. Each woman was asked to continue regular practice of these prepared childbirth breathing techniques along with her music package.

As soon as one of the research subjects went into labor, a music therapist met her at the hospital. Each woman chose the specific piece of music that she wished to hear at the moment, but the music therapist also used the following guidelines to determine the final selection. At the start of labor, relaxing music that was judged pleasant and comforting by the woman was generally the music of choice, unless the expectant mother specifically requested something else. Mood-elevating and memory-evoking music were also played as contractions built up in intensity. During this time, the music therapist played music of gradually faster tempo. When it became more challenging to maintain control and regulate the breath, music with a strong and steady beat replaced slower, flowing melodies. Energizing, attentionprovoking music began to substitute for some of the more relaxing selections. The woman was guided to breathe with the music, and focus on the memories or images that came to mind. For the duration of her labor, the music therapist identified the most effective music to help her maintain focus and relax as deeply as she could. Throughout the experience, she was ultimately in control of choosing the music.

Due to the extraordinary number of individual differences in labor and delivery, hundreds of women would have been required to achieve sufficient power to detect a difference between women who experienced music in labor and a control group of women who did not. For this reason, a repeated measures design, using each woman as her own control, was selected for the research. In this approach, each woman had her own music selections playing for a set of 10 contractions, and then the music was turned off for the following 5 contractions. She listened to music, then no music, music, then none, continuing this pattern for the entire labor. Because of the many physiological and psychological concomitants of labor, and the difficulty of observing relaxation, a behavioral checklist of pain-related behaviors was designed to measure differences between music and no music conditions. These behaviors included tension of the body, as demonstrated by flexed feet, gritting of teeth, hunched shoulders, fists, or tightly-shut eyes. Other dimensions of responses to contractions were composed of vocalizations of pain, shifts in position, and requests for medication. During each contraction, the music therapist noted the number of behaviors that occurred, on a specially-designed observation form. These data were compared for contractions in which music was present versus contractions in which there was no music. In each labor, a second

observer accompanied the music therapist, and recorded the same data. Interobserver reliability between the two was high.

The results showed a greater number of pain-related responses during periods of no music, when compared with periods of music, for every woman who was included in the research. Seven women completed the protocol, and were included in the article published in the *Journal of Music Therapy*. These new mothers commented on the efficacy of having an auditory focal point to cope with the pain of contractions during labor. They also described enhanced relaxation that they felt in the presence of the music, particularly between contractions. Having the support and assistance of the music therapist was another advantage cited by most of the mothers. Clearly, this music listening protocol was effective in helping women through labor and the birth of their children.

#### Music for Depression and Anxiety

The success of the childbirth study lent support to the assumption that music had great potential to reduce the perception of acute pain during the labor associated with childbearing. A secondary outcome of this protocol was the reduction in anxiety and increase in relaxation, at least in between contractions. This finding supported the established relationship between anxiety and pain, and also between mind and body. It then led to a further investigation of the impact of music listening on psychological factors, notably anxiety and depression (Hanser and Thompson 1994). Because music is widely available at low cost, it was apparent that music could be of value to individuals who do not have easy access to community resources, particularly psychological services. In particular, older adults who are homebound because of illness, incapacity, the burden of caring for a spouse with physical or mental disability, or lack of economic means could benefit from music therapy techniques performed in their own homes. A more extensive music protocol that would take into account more chronic, long-term issues would need to be developed. It was Dr. Larry Thompson, Co-Director of the Older Adult Research and Resource Center at Stanford University Medical School and the Menlo Park Veterans Affairs Medical Center in California, who saw the potential effectiveness of music with the clients he served. Dr. Thompson agreed to sponsor my application for a National Research Service Award from the National Institute on Aging (NIA) to test the impact of music therapy on older adults who had serious depression and concomitant anxiety. NIA granted a post-doctoral fellowship, and the research began with 60 older adults, all of whom were diagnosed with clinical depression – minor type.

Because I realized that home visits by me might alone result in the social support sufficient to improve anxiety and depression, I designed a randomized controlled trial to test the hypothesis that listening to music selected by these older adults would positively affect depression, anxiety, self-esteem, and mood. Individuals were randomly assigned to one of three conditions. In one condition (home-based music therapy), I visited each person at home once a week for eight weeks, where I introduced one of eight music listening programs designed to reduce stress. During our meeting, I helped them identify music that was personally meaningful and appropriate for each program, and we practiced one technique. In the second condition (self-administered, minimal therapist), these older adults received two pages of instructions on a specific music listening technique, and I made a telephone call once a week to assist them in selecting their own special music. There was no other contact between the music therapist and these individuals. Thus, this condition controlled for presence of the therapist, and gave these elders the opportunity to practice the techniques on their own. The third condition was a wait list control, and these people were monitored for depression weekly, but engaged in their normal activities, with the promise that they could enroll in the study after eight weeks.

The research subjects were instructed to listen to their music every day along with one technique, and they each determined the length of time and time of day that were most feasible. The eight music listening techniques involved three techniques for body relaxation, two for mind relaxation, and three more for other exercises. Body relaxation included gentle exercise to music, a facial massage, and progressive muscle relaxation, accompanied by their specially-selected music. Mind relaxation involved imagery to music (e.g., closing their eyes and letting the music take them to a beautiful, peaceful place), and a specific imagery exercise designed for the individual (e.g., finding a wonderful place they had visited, and attempting to solve one problem while there, in their mind's eye). The last three were developed for the purposes of sleep enhancement, energy boost, and creativity. As might be obvious, some music has the capacity to calm and relax, so the research participants identified music that was deeply relaxing, and played it at bedtime. Conversely, they found exciting music that grabbed their attention, and played it first thing in the morning. In the creativity exercise, they were asked to develop a plan to engage in music along with another art form, learn an instrument, sing to the music, or involve themselves in an active music-making.

All research subjects completed self-report measures of depression, anxiety, self-esteem, and mood before beginning the protocol, then after four weeks of participation, and at the conclusion of the eight-week treatment period, as a post-test. These psychological instruments were sent via mail to all participants, with a self-addressed stamped envelope to return to the research office. Those in the two music conditions also completed these measurements nine months after the conclusion of treatment. There was a high degree of compliance with these techniques for the individuals who participated in the music listening techniques. It is conjectured that they found secondary benefits to the music listening activities.

The results of the experiment revealed that subjects in the two music conditions reduced their depression and anxiety, and enhanced their self-esteem and mood, over the eight-week research period. Their scores on all measures were statistically significantly different from those in the control condition, in favor of the music groups. Their improvement in depression was so great that it was calculated to be clinically significant, i.e., these clinically depressed older adults more closely resembled a non-depressed sample of elders, by the end of eight weeks. In addition, follow-up scores nine months later were not significantly different from post-test

scores. Maintenance of the impressive gains occurred in both music conditions, with the self-administered, minimal therapist condition displaying even more improvement than those in the home-based condition.

The findings demonstrate the potential of a psychoeducational strategy that is accessible and low cost to improve depression and anxiety in older adults. If music listening with simple instructions could benefit these depressed and isolated individuals so profoundly, what would be the impact of a more interactional music protocol?

#### Music in Cancer Care

Having held an appointment as music therapist at the Zakim Center for Integrative Therapies at Dana-Farber Cancer Institute in Boston, I had the opportunity to run another randomized controlled trial, this time with women who had metastatic breast cancer. These women were dealing with the stresses of living with a serious life-threatening condition, while experiencing the pain, discomfort, and other symptoms associated with chemotherapy treatment.

In order to design this protocol, I consulted with an interdisciplinary team of colleagues in various specialties, including music therapy, oncology medicine, nursing, and research (Hanser et al. 2006). We were interested in examining the impact of music therapy on long-term quality of life, as well as short-term psychological and physiological change. Specifically, we examined quality of life and spirituality over time, while assessing pre- vs. post-session psychological status via self-report on a visual analogue scale of comfort, contentment, and relaxation. Arousal before and after music therapy sessions was measured by blood pressure and heart rate.



Figure 1. The author with a 12-string lyre, used with women who have cancer.

Seventy women who were undergoing chemotherapy were randomly assigned to either the music therapy condition or a wait list control group. Those women participating in music therapy met with me or fellow music therapist, Lorrie Kubicek, during three of their outpatient chemotherapy sessions, customarily three to four weeks apart. The music therapist met individually with each woman while they were being infused. The first music therapy session was devoted to music listening, but this time, the music therapist provided live music on guitar, voice, keyboard, Native American flute and/or twelve-string lyre. Few demands were placed on the participants; they were asked merely to listen to the music performed or improvised vocally and on musical instruments. The second session began with their favorite live music, and subsequently, the music therapist invited each woman to improvise to the therapist's music. Percussion instruments that were easy to master and perform without much instruction were provided; they included a collection of drums, hand chimes, xylophones, rain stick, and dulcimer. The third session was devoted to writing songs. Participants were encouraged to compose a song with the assistance of the therapist. Common themes included songs that communicated something that the woman wanted to say to a loved one; songs about people she loved, and songs about the experience of having cancer or the experience of music. In most cases, the music therapist used music that the woman knew and enjoyed to cue composing new, original lyrics. For others, the lyrics came from favorite poems, affirmations, or personal journey entries. Some created their own melodies. Many recorded their original songs, and shared them with family and friends.

Challenges to the research design became evident when many of the participants were unable to attend their scheduled chemotherapy appointment because they were too ill. The music therapy sessions became quite diluted when the time between appointments stretched to several months, and it was not possible to hold three sessions within four months. Long-term outcomes of the treatment were difficult to determine because statistical power lagged when several subjects needed to be dropped from the study. Nevertheless, pre- and post- session blood pressure and heart rate were compared. Blood pressure proved to be quite complicated to test, due to lymphodema experienced by many, and there was also great variability in readings amongst the participants. However, stress arousal as measured by heart rate was significantly lower post-session, as opposed to pre-session. On the visual analogue scales, comfort, contentment, and relaxation were all significantly changed, when pre- and post-session scores were compared. On a survey, the women were asked to identify whether the session were helpful, and if so, to state why. Themes of participant responses included the following:

- Sessions were relaxing
- Ssessions were transformative
- Participants developed a new tool to cope with cancer
- Participants were reawakened to music and passion
- Music was pleasurable or peaceful
- They experienced a new awareness or transformation
- Music was energizing
- Sessions helped with pain

Most participants reported significant relaxation through music as an important outcome. The majority were enthusiastic about music therapy, many expressing a desire to continue to work with the music therapist and to apply the techniques when they were in distress.

#### Conclusion

In these three studies, passive music listening and active participation in creative music therapy experiences had impact on three distinct clinical populations. Lessons learned from these investigations and other clinical research were summarized in a book with accompanying CD entitled, *Manage Your Stress and Pain through Music*, co-authored by Dr. Susan Mandel (Hanser and Mandel 2010). The book explicates several of the music therapy techniques used in the research, and applies them to a variety of conditions from every day stress to chronic pain.

The conclusions drawn from the research and clinical experience of the author contribute to the idea that when people learn how to truly listen to music, and listen to the impact that it has on them, they can use this modality deliberately and functionally to change their mood. Even more significantly, they can learn to use music to help them cope with stressors, large and small, and pain, psychological and physical.

Actively engaging in music, through singing, improvising, playing instruments and writing songs, adds another dimension to the music experience. These visceral pursuits enable individuals to express themselves by exploring their intuitive and creative side. They involve mind and body as few other stimuli do, and as a result, can be effective in focusing attention and gaining a sense of mastery. When individuals make music, they are surrounded in a potentially powerful creative process that is uniquely their own. Yet it is challenging to document these changes that music therapists observe all the time in their work. The research is promising, but just beginning to uncover the actual impact of music as therapy. Future efforts will require both a quantitative and qualitative look at music therapy techniques with a multiplicity of clinical applications, in order to understand those elements that are instrumental in affecting change.

Today's mp3 players and iTechnologies are making music more accessible and cost effective than ever. I hope that this article has inspired the reader to apply music and music therapy techniques whenever stress or pain interfere with daily living, and to enjoy music every day.

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# "Yes, I Can Learn!" Blending Music Instruction into Music Therapy

Kana Kamitsubo<sup>+</sup> (USA)

#### Abstract

This article introduces my innovative approach to blending music therapy and music instruction. My method is unique, original and focuses on improving both vital life skills and musical skills. It has been found effective especially with those children with learning difficulties including autism spectrum disorder and attention deficit. Key to success in this method is motivating the participant through music to develop and grow. Based on the premise that all children can learn when given the proper tools, this method is adapted to provide elements of success and competency. Respecting that each individual is unique, this approach recognizes individual pathology and strives to reach the musician within each child. The case study illustrates a boy with autism who began music therapy exhibiting severe attention difficulties and disruptive behaviors. Within two years, he made significant progress in his life skills and learning to play musical instruments.

Keywords: Autism Spectrum Disorder, Music Therapy, Music Education, Special Education, Attention deficit, Assessment

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#### Introduction

As a clinical music therapist who often works with children with autism, I have encountered situations where parents strongly hope that their children learn music and instruments in music therapy sessions. Though music therapy and music education are distinct fields, by working with special needs children who exhibit exceptional musical skills, I came to recognize the benefits of incorporating music instruction into my music therapy practice. I began to think about ways to integrate music learning while still addressing non-musical goals, and decided to begin integrating music instruction into the music therapy sessions. Shortly after I started to implement my new approach to music therapy, those children with autism showed great interest in learning music and demonstrated remarkable therapeutic outcomes. Not only have they been to be able to learn music successfully, but they also improved non-musical skills such as decreasing inappropriate behaviors, increasing attention spans, and improving motivation in learning. These therapeutic outcomes confirmed my theory and led me to start developing and establishing my own approach to music therapy infused with music learning.

#### 1. Goals

This approach is unique and effective because it blends music therapy and music instruction and enables children with autism to successfully learn music and improve their vital life skills. The goal is to enhance that child's growth, as a person and as a musician, improving vital life skills and musical skills at the same time. Through my work with children with autism, I have become convinced that growth as a person and growth as a musician are mutually reinforcing processes. For example, when a child improves his fine-motor skills, his musical skill also improves. When the child learns to play a song on the piano or gains a new musical skill, his self-esteem grows and he becomes more motivated to learn.

#### 2. Method

#### Process

This approach emphasizes both music therapy and music instruction, but the relative weight of its focus depends on continually balancing the abilities, progress, and needs of each child. All the children in my practice take an individual weekly session for 30-45 minutes. When a child is referred, the first step is always to start with music therapy. During this period, the goal is to improve the child's pre-academic and other skills that are necessary for learning. Also, accessing the child's innate musical ability and enhancing their fine-motor skills will facilitate their further improvement, because these skills will be essential for effective music lessons. When the child seems to be ready, session content gradually transitions to music instruction and the more focus is placed on improving musical skills.

#### Assessment

Assessment is fundamental to designing and providing interventions and instruction that will meet each individual's needs. From the initial session, continuous assessment evaluates each child's non-musical skills, musical skills, including preferences and interests, and their preferred sensory system for learning. Non-musical skills: Gaining understanding about each child is very important. Especially when the child is in the pre-instruction period, assessing the areas that need to be improved is indispensable to help prepare them for music instruction later. The following areas are particularly important.

- Participation level: The most important thing is that the child participates in the activities presented in the session. Some children are totally willing to participate and are excited about all the musical activities. Some may have preferences among the activities (e.g. they may participate well in singing but not playing instruments etc). Children are often resistive and do not want to participate in any activities. This frequently happens in the initial stage. So, it is important to assess and keep track of each child's participation level to observe if it increases over time, and to understand what kind of activities the child participates in the most and the least.
- Emotional needs and communication skills: Following the assessment on • participation level, it is essential to assess the child's emotional state, including how he communicates with you as a therapist. Does the child seem to be comfortable working with you? If not, does he seem to be scared, anxious, shy, too excited, confused, or angry? Observing how the child communicates with you can give you clues about his emotional state. For example, a child's impulsively asking for different instruments and expressing random things without really answering or following you may indicate that he is too excited or confused. Sometimes, children (or actually, we all) use these behaviors to avoid facing anxiety or out of fear of communicating with others. For another example, if the child completely avoids eye contact and turns his body away from you, this may indicate that he is anxious about being too close to you and he may need more physical space. It cannot be stressed enough that it is fundamental for success that the child feels secure and comfortable working with the therapist. Without accomplishing this, it is difficult to proceed to music instruction.
- Cognitive skill: Once the child's emotional needs are met, you as a therapist will be able to assess his cognitive skills better. It is important to asses both the child's attention span and what activity he best attends to. Another important cognitive skill to assess is whether the child is able to understand your directions, but the therapist must be aware of his/her manner of giving directions. It is always helpful to use one or two-step sentences with simple and clear word choices and give one direction at a time. If the child fully understands the directions, try to see if he can understand more complicated directions. If the child does not seem to understand the directions, try to see if he can understand through visual cues (such as modeling or using picture cards) and hand-over-hand instruction.
- Fine-motor skills: Children with ASD often have difficulties with fine-motor skills. Since having good fine-motor skills is essential to for progress in instru-

mental playing, improving fine-motor skills is important from the pre-instruction period on.

**Musical skills:** Finding the child's characteristic musical preferences and areas of strength is crucial for successful music instruction. Attention is paid to any possible responses that may indicate a child's musical strengths, such as: What element of music does the child relate to the most – rhythm, harmony, or melody? What kind of musical activities does the child show interest in – playing an instrument, singing, or listening? How is his auditory skill – is he able to imitate the rhythmic phrase played on the drum – does he sing on pitch? It is important here to emphasize that this does not mean to compare the child with other children; rather it means looking to find the strengths of each individual.

Assessment of preferred sensory system for learning: In my experience of working with children, I have learned that each child has preferences in how he relates to new ideas; some learn better through visual cues, while others learn better through auditory cues or kinesthetic cues, meaning learning by experience or hands-on learning. In my observation, this is also true for children with special needs, and knowing their preferences is indispensable when tailoring instruction. Here are some of the features that may indicate which sensory system a child prefers.

- A child who relates to auditory information better tends to like singing and remembers musical phrases well (sung or played). He may notice subtle differences of the sound (dynamics, register).
- A child who relates to visual information better often notices the shapes and colors of instruments and music education materials. The child is able to follow better when you model and use picture cards.
- A child who relates to kinesthetic information better tends to like to move or dance to the music and often shows higher fine-motor skills than average. The child understands better through hand-over-hand instruction.

#### Tailored Learning Steps and Multi-sensory Approach

It is vital to provide appropriate instruction by giving the right amount of challenge based on careful assessment of the child's progress and emotional needs. The emphasis is placed on customizing the contents of the session, including providing a step-by-step approach and a multi-sensory approach. Because of the unique abilities and difficulties of children with special needs, the instructional steps provided in traditional music lessons are not easy for them to follow. Even with step-by-step instruction, often each step may be still too challenging. Then it is important to break each step up into smaller steps. Each step must be designed to enable the child to succeed. Along with those steps, providing a multi-sensory approach is important. Each concept is taught through different sensory information. Start from the child's preferred sensory system, and gradually add other sensory information to reinforce the same concept. For example, Mark, one of the clients, learned the concept of solfege though singing (auditory), then color-coding (visual), and bell-playing (auditory, visual, kinesthetic). Then he transferred his knowledge and skills onto the paper-piano (visual, kinesthetic) and finally, to real piano playing (visual, auditory, kinesthetic).

#### 4. Evaluation Method

Session video analysis, written reports and parent feedback are used to evaluate the efficacy of interventions and instruction. Each session is video taped for subsequent analysis of the child's responses and signs of the child's responses and progress. These are documented and appropriate contents are shared with the parents. The parents also provide their feedback either in writing or orally.

#### 5. Techniques

In my approach I use several effective techniques, such as: solfege singing, colorbell playing, and some music games using music education materials such as DoReMi cards, Paper Piano, and Magic Notes (Yurko 1992).

Solfege singing is the fundamental technique of the approach. Many children with ASD have responded well to solfege singing, and this is especially effective for those with good auditory skill. Children learn solfege and sing both ascending and descending directions though a simple song I composed, "Are You Ready." Once the child has fully learned this song, then I introduce singing nursery rhymes in solfege, usually starting with "Mary Had a Little Lamb." Children learn solfege through their familiar songs and more challenging pieces are introduced gradually.

Another important intervention is the color-bell playing. The first step is to enable the children to play each bell with intention. Then children are encouraged to play the bells as they sing solfege and develop spatial awareness of the distance between notes, that is, between lower and higher pitches. In addition, they naturally learn the color-coding of the solfege syllables, a visual cue consistent with most music education materials.

To deepen their understanding of solfege, simple music games are introduced to help children transition newly learned knowledge and skills toward real piano playing, and to develop finger abilities. These simple games include using Do Re Mi cards; a "paper piano," a section of piano keyboard drawn to scale; and magic notes, colorful buttons to place on the keys. After children master all these activities, they are able to play songs both on the piano and bells.

When children achieve this level, the emphasis and focus are shifted to improving piano-playing skills. Because many children with autism often have low finemotor skills, they tend to have a hard time playing the piano using all the fingers alternating. So, the focus needs to be placed on improving their precise fine-motor skills.

#### 6. Case Study

Mark, a 3 years-and-11-months-old boy, was referred to Kana's Therapeutic Music in May of 2010. Mark's mother had a desire to let Mark learn music and piano, but

had been discouraged after several unsuccessful lessons with his former piano teachers who lack an understanding of and experience with special needs children. One of my colleagues made a referral to my practice. Mark is Chinese and had been diagnosed with autism, ADHD, and language delay. Mark demonstrated impulsive and disruptive behaviors and thus was a very challenging client; people around him doubted his ability to learn.

#### [Session 1-7]

In an initial session with Mark, he seemed totally out of control, exhibiting impulsive and disruptive behaviors such as running around the room and being rough with the instruments. His attention span was poor and got distracted easily. He had difficulty understanding verbal interventions, and was echolalic. It was impossible for him to listen to my directions and follow them. He had poor finemotor skills and it seemed difficult for him to grab a mallet or strum the guitar properly. However, he was very responsive to music and that made me hopeful about his potential for learning in music.

Although his mother had a strong desire to let him learn music, I decided to start with music therapy activities to prepare Mark for getting ready to learn music. Therefore, the goals and objectives in the initial stage were to increase his preacademic skills: increase his attention span and ability to follow directions, and decrease impulsive and disruptive behaviors. To let him get used to the structure of the session, I intentionally kept the same order of activities. I used picture cards, each with a picture of an instrument of the activity, so he could anticipate what would come next. These simple techniques helped him reduce his anxiety and focus better. Also, in order to help him maintain focus, I provided 5-6 activities in a session with various instruments with different sounds and tone-qualities. In addition, I composed several songs for Mark to learn and improve social and pre-academic skills: "Hello Song," "Listen, To the Bells," "Copy Me" etc. Through his success at learning these music activities, Mark improved his pre-academic, communication, social, and cognitive skills. Over the first seven sessions, Mark's attention span and participation level increased greatly. He learned music therapy songs and activities and was able to participate in those activities entirely, which had been impossible for him when he began. His mastery of the activities gave him confidence in his ability to learn.

#### [Session 8-15]

Observing Mark's progress, I gradually started to introduce music instruction. Since it was observed that Mark's preferred sensory system for learning is through auditory, I used the song "Are You Ready" to teach solfege. I also worked to improve his skill at playing the color bells. Because his fine-motor skills were poor, it was difficult for him to play the bells one at a time. He would impulsively hit all the bells. So, I composed a song that encouraged him to play each bell one by one. In another intervention, I introduced *Do Re Mi cards*, on which each syllable is colorcoded and the colors match to those of the color bells. I showed him each card and spelled it out by speech-like singing, "D, O, Do" "R, E, Re" He copied the phrases with the melody I sang. With repetition, he gradually was able to say it on his own.

#### [Session 16- 42]

It was noticeable that Mark's progress was rapidly increasing. Mark took more initiative during the activities and became more independent. Also, his cognitive skills seemed to be growing more and more. I introduced games using DO RE MI cards, which encouraged him to put those cards in ascending and descending order (pictures shown below). This was a challenging game for him but he learned it with repetition. As he mastered this game, I made the game even more challenging with variations. Mark was able to learn those games and amazed his mother. His cognitive skills had improved and he was able to follow more complicated directions.



[Figure 1. Mark with Do-Re-Mi cards.

In another intervention, I taught him to one of his favorite songs with solfege syllables, to develop his understanding of music and make associations between his familiar songs and his newly learned knowledge of solfege. With repetition and practice at home, he was able to sing "Mary Had A Little Lamb," entirely with solfege. It took him about a month to master this song. One may see this as a tiny step, but for him, it was a huge accomplishment. Also, Mark made progress on bell playing; he was able to play properly without being impulsive and started to learn how to play "Mary Had A Little Lamb" on the bells. At this time, he had no problem with sitting on the chair and focusing on the tasks. The boy who was impulsive and disruptive was not there anymore. Instead was a boy who found joy in learning.

Mark's motivation in learning had grown so much and I decided to introduce many other learning materials to improve his performance skills on the bells and piano. Work on learning to read musical notation increased his musical understanding.





Figure 2. Learning to play the piano on a paper piano. Pointing to Do-Re-Mi cards as he sings solfege.

#### [Session 43 to 51]

Mark seemed to flourish in this learning environment, and accomplished many things. He learned not only singing, but also playing several songs both on the piano and bells such as "Twinkle, Twinkle Little Star," "Row, Row, Row Your Boat," "Brahms' Lullaby," "Ode to Joy", "Somewhere Over the Rainbow," and so on. In the sessions, he could not stop playing and singing. He was enjoying playing and looked proud of himself.

Mark's mother informed me that he performed five pieces from memory on the bells in front of his peers and teachers at his birthday party in school. No one expected him to play, but he spontaneously decided to perform. All the teachers were so shocked and speechless because what they saw and heard was beyond their imagination. They said to his mother that it was like a miracle happened.

#### [Session 51 to 77]

By the 51<sup>st</sup> session, Mark had made wonderful progress, both musically and personally: his understanding of music and piano playing had improved, and his attention span and demonstration of appropriate behavior had increased. Because of this success, it was important to take the next steps to improve Mark's pianoplaying skills. Instead of using only his index fingers, I wanted him to use all of his fingers. In the past, he had resisted because it was challenging.

After many trials and much frustration on his part, I realized that I needed to be more creative in my approach. I encouraged Mark to add the other hand and play both hands together, still using just his index fingers. I demonstrated two indexes placed on C's an octave apart while singing "Do" and "Do", and so on. Immediately, this caught Mark's attention and he was keen to practice it on his own. Gradually, Mark became more open to using his other fingers. I composed songs to encourage him to alternate using his index and middle fingers and to use all five fingers. However, he still resisted using all five fingers. Although a bit dismayed, I realized that if I did not believe in him, he might never succeed. I did not give up.

On December 23, 2011, the night before Mark's 64th session, his mother sent me a text message saying Mark had played the piano using all five fingers! He not only played the five-note scale, but also "Mary Had A Little Lamb," using all five fingers alternating (personal communication, December 2011). The pace of Mark's progress seemed phenomenal. One month later in session #71, Mark played a five-note scale with both hands together in a parallel motion. Later, he even played the famous melody from "Ode To Joy" in the same manner. In response to his rapid progress, I prepared more challenging songs that required Mark to use both hands collaboratively and to change hand positions while playing, which he mastered within a month. By 77<sup>th</sup> session, he mastered to play more complicated songs to play with both hands, such as the melody of "Minuet in G" by Bach.

#### Summary:

Over one year and 10 months, 77 sessions, Mark made great progress in many areas including cognitive, pre-academic, communication, fine-motor, psychosocial and music skills. What is particularly important is that his self-esteem improved so much. Now Mark knows that he can apply himself to tasks successfully. He now sees what he can do rather than what he cannot do – which changed the perspectives of others around him as well. His relationship with his parents, especially his mother, changed greatly. She used to be worried about his condition and she saw him as just a difficult child. But now, Mark is doing something she can be proud of and she knows that he can learn and develop which makes her feel more hopeful. Her being hopeful affects Mark's progress as well.

#### Feedback from Mark's mother:

Mark's mother wrote me a letter describing her experience and her feedback to my approach and interventions (personal communication, October 2011).

#### Ms. Kana,

When I first brought Mark to you, I did not know how far he could go. At that time, he was extremely impulsive, could not engage himself in any activities for more than 2 minutes, he could not play one key at a time with finger.

But Ms. Kana, you made the miracle happen—when I watched the video you sent of him playing "Twinkle, Twinkle Little Star" on the bells, my heart was beating fast and at the end of the excerpt, it was jumping out of my chest. Now, he not only could play "Twinkle, Twinkle Little Star", but also could play more complicated songs such as "Lullaby" and "Ode To Joy" on the piano and bells.

Another miracle is that Mark learned to play music games such as Do Re Mi cards. I just could not believe that he one day could put **seven** cards in order and backwards. Also, with the games to teach him rhythms, he learned many complicated rhythms; recognizing their shapes and remembering the names. I've also noticed that those skills were transferred to outside of the music sessions. He is now able to follow directions better, wait for his turn patiently, and communicate better with me.

I think your approach (which is the combination of repetition and adding new elements gradually) provides clear structure, which helps him a lot. Also, the detailed session report you sent me help me understand the therapeutic purpose of the music activities and notice the subtle positive changes in his behavior. I feel lucky that I have found you as his music teacher/therapist.

Sincerely, L (Mark's mother)

#### Conclusion

My approach, combining music therapy and music education has proven effective for children with ASD. The approach emphasizes the therapists' creativity and flexibility in creating instructional activities. It is vital for the therapist to first look into each child's musical strengths and preferred sensory system for learning and expand them gradually.

Providing steps through which a child can succeed with a right amount of challenge is important to keep motivating the child and give a sense of mastery. Furthermore, providing a multi-sensory approach can give a child easier access to new ideas or unfamiliar skill-sets. It can activate other sensory systems that a child may not have originally preferred.

#### References

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### **Conference Reports**

• The First ASEAN Music & Creative Arts Therapy Summit – Bangkok July 2012

Bussakorn Binson (Thailand)

 Keynote Address: The First ASEAN Music & Creative Arts Therapy Summit – From Music to Mirror Neurons, Empathy, and Peace

Udom Pejarasangharn (Thailand)

## The First ASEAN Music & Creative Arts Therapy Sumit Bangkok June - July 2012

Bussakorn Binson<sup>+</sup> Chair of the Summit

This is a report on the First ASEAN Music and Creative Arts Therapy Summit (AMCATS) that was held from June 27th through July 2nd, 2012 at Chulalongkorn University's Arts & Culture Building. It was hosted by Chulalongkorn University's Faculty of Fine and Applied Arts in conjunction with both Thailand's Office of Art and Culture and Thailand's Ministry of Public Health along with essential support from Israel's University of Haifa. This dynamic and engaging program attracted over 70 professionals from both Thailand and abroad to learn through direct participation about the many facets of what comprises the field of creative arts therapy.

Associate Professor Dr. Suppakorn Disatapundhu as Dean of the Faculty of Fine and Applied Arts gave a welcoming speech to the participants while Dr. Tewan Taneerat M.D., Director of the Department for Development of Thai Traditional and Alternative Medicine, Ministry of Public Health together with Professor Dr. Rachel Lev-Wiesel, Director of the Graduates School of Creative Arts Therapies, University of Haifa, Israel delivered their opening addresses.

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Figure 1. Sign for the Summit on the Chulalongkorn University campus and the Dean of Chulalongkorn University's Faculty of Fine and Applied Arts Associate Professor Dr. Suppakorn Disatapundhu delivering his welcoming address.



Figure 2. From left to right – Opening Speakers Prof. Dr. Rachel Lev-Wiesel and Dr. Tewan Taneerat M.D., with Keynote Speaker, Dr. Udom Pejarasangharn, M.D.

The six day program of AMCATS focused on sharing knowledge and experience through a diverse combination of lectures and workshops delivered by experienced professionals from both Asia and Europe. The aim of the program was to build a supportive network for music and art therapy that would assist in extending these therapies to people around the world for enhancing ones physical and mental health as well specifically for dealing with pain and trauma.

Furthermore, Chulalongkorn University's Faculty of Fine and Applied Arts had been honored by Prof. Rachel Lev-Wiesel and her dedicated associates from Israel's University of Haifa in conducting knowledge-rich and enjoyable daily workshop programs that ranged from Dance Therapy, Art Therapy, Drama and Psychodrama Therapy, and Dance Movement Therapy.

But before the workshops began, the keynote speaker Dr. Udom Pejarasangharn, M.D. brought alive the Summit with a presentation titled *From Music to Mirror Neurons to Empathy and Peace* where he discussed how music affects mirror neurons in the human brain and brings about a state of empathy upon which music and creative Arts therapy is based.

The highlight of the first day of workshops on the 1 to 5 Piano technique led by Mr. Trirat Uptampohtiwat and his 1 to 5 piano team. The 1 to 5 Piano method uses easy to follow numerical musical notation mapped to the five fingers of each hand rather than the complex, hard to learn traditional notation). In a short time, any person even those with learning disabilities and psychological impairments who can count to five can learn this technique. This easy to follow method enables one to learn to play the piano quickly which leads to more enjoyment as opposed to frustration. A second presentation relaying the experiences in using 1 to 5 Piano methodology with children and the elderly was given by Dr. Pakdee Suebnukarn, M.D. from the Dansai Crown Prince Hospital.



Figure 3. Dr. Pakdee Suebnukarn, M.D. from the Dansai Crown Prince Hospital.



Figure 4. The workshop with Mr. Trirat Uptampohtiwat and his 1 to 5 Piano team.

The music therapy sessions on the second day was led off by Dr. Patravoot Vatanasapt, MD, MS from Khon Kaen Hospital on his use of *Music Therapy with Cancer Patients*, followed by Dr. Bussakorn Binson's workshop on how improvisation stimulates the brain and how to improvise. Her workshop was titled *Improvisation on Music and Movement*.



Figure 5. Dr. Bussakorn Binson, w/microphone (left) and Dr. Patravoot Vatanasapt, MD, MS. ( seated right).



Then there was *Music for Cancer Patients* as presented by India's Dr. Sumathy Sundar, the Director of the Chennai School of Music Therapy. The workshop on *Playing with Sound and Movement* was led by Dr. Fred Landers from the United States, which focused on developmental transformations that is a form of drama psychotherapy based on the process and dynamics of free play.



Figure 6. The Playing with Sound and Movement Workshop with Dr. Fred Landers (right).



Figure 7. Dr. Sumathy Sundar discussing music therapy and cancer (left), while Dr. Adi Barak conducts one on narrative therapy (right).

Then from day three through the final sixth day, the team from the University of Haifa's Graduate School of Creative Arts Therapy lead six workshops which as their name implies, focused on the use of the creative arts in therapy. Professor Dr. Rachel Lev-Wiesel hosted a workshop named the Use of Self-Figure Drawing for Diagnostic and Therapeutic Purposes in Sexual Abuse Survivors. Then Dr. Tammy Bar-On hosted one titled Myself and the Other: Art Therapy from a Multicultural Perspective and the third workshop was A Picture Worth a Thousand Words: Art Based Assessments by Dr. Michal Bat-Or followed by Dr. Adi Barak conducting one on Narrative Therapy and then Dr. Dita Federman ran two workshops covering the Approaches in Dance Movement Therapy: Mirror Neurons & Experience and Dance/Movement Intervention Skills.

Additionally on day five, there was the Use of Overtones in Music Therapy workshop (Chakra and Throat Cancer Healing) led by Prof. Dr. Tran Quan Hai from Vietnam as well as a lecture on the Early Child Bonding Process and Music Therapy led by Germany's Dr. Monika Nöcker-Ribaupierre.



Figure 8. Art-based Assessments by Dr. Michal Bat-Or of the University of Haifa.



Figure 9. Mr. Anupan Pluckpankhajee's "Color Experience" workshop (left) and an Art therapy workshop with Dr. Tammy Bar-On (right).



Figure 10. Dr. Tran Quan Hai from France discussing the use of overtones in music therapy.



Figure 11. Drama and Psychodrama Therapy by the University of Haifa team under Dr. Rachel Lev-Wisel.

The lectures and workshops were all very well received and well-coordinated with the institutions in Thailand such as the Ministry of Public Health, ASEAN, Dansai Crown Prince Hospital and the Rakluke Group. Additionally, the well-established team of all the practitioners and scholars in music and creative arts therapy from around the world came together to lead this diverse collection of music and art therapy workshops for over 100 participants that ranged from medical doctors, nurses, caregivers, therapists and educators. With all of these participants joining in it is hoped that this summit will lead Thailand as a member of ASEAN, to become the regional center of music and creative arts therapy in the near future.

### Keynote Address The First ASEAN Music & Creative Arts Therapy Summit –

# From Music to Mirror Neurons, Empathy, and Peace

Udom Pejarasangharn (Thailand)

For a long period of time, we have known that music has many beneficial impacts in the society and human well being. Unfortunately, there was not enough precise scientific evidence to support these. That is why for so many years, music has not been the intervention of choice in dealing with the improvement of human and social quality.

After the discovery of mirror neurons circa 1990s, together with other neuro-scientific discoveries, music has been found to have a major effect on neural plasticity, human empathy, learning and motor-sensory functions. However, we are still struggling to fuse music and the recent scientific findings.

The author would like to use this as a form of persuasion to musicians, scientists, physicians, and teachers, to join and use music as a way to improve the general humanity and well-being.

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In the ancient times, the bodies of knowledge were not separated as Science, Art or Medicine. It was just entirely known as the knowledge of life and nature. And anyone who wanted to empower themselves had to learn everything that has a direct involvement in their lives: language, farming, calculation, or even health care. On the evolution of knowledge, the bodies of knowledge were separated into distinguished disciplines; Science, Music, Mathematics, Medicine, and so on. Every discipline had its own progressions which later on, made gaps among them too. Unfortunately, those gaps took its toll on mankind's understanding of knowledge and nature holistically because there is not one discipline that can give a complete answer to the human life. The 'convergence of disciplines' is one, if not the only 'great answer' to human life in this ever changing world.

#### Our World Needs Empathy

Right now, our world is facing different problems. From various environmental problems such as the destruction of natural resources, proper waste disposal, nuclear energy threats, carbon emissions, to the dreaded global warming. We seem so divided by ethnic and cultural backgrounds, beliefs, religion, and sexual orientation. We foresee a "big bomb" of aged population in the near future yet we do not act on making more programs for the benefit of our elderly; people still experience discrimination (Contri, 2011), epidemic diseases, famine, children dying malnutrition and preventable diseases; the disabled not being given access to proper medical and social welfare services. We have social and political conflicts, war rages between countries and within countries (Robertson, 2010).

These are certainly not new, of course. And humans demonstrated a willingness to kill each other throughout history (www.empathysymbol.com). And it's safe to say that most of us are well aware of these issues the humanity is facing now. Each of us alone may feel helpless to do much of anything about these. Some may even feel that their negative attitudes toward others outside their group are justifiable.

Truth is, these problems cannot be solved all at once, but there is a first step we can all take, the pathway to love and understand our fellow humans, the way that may eventually lead to world peace, and that is empathy.

We know that we need close-cooperation to address humanity's issues. We know we need to empathize. But, why can't we? Why do we have a hard time empathizing? Do we understand empathy enough to carry it out?

Scholastically speaking, the lack of empathy may stem from multiple sources within the intra and interpersonal contexts (de Wied, 2009).

"Empathy is more than just awareness and concern. It is about cultural sensitivity and conflict resolution. It's about the ability to communicate effectively and understand the motivations of others. Empathy is about standing up, not standing by, uncovering what's below the surface by active listening and putting words into action" (Ashoka Changemakers). Simply put, empathy can be defined as the ability to see through the eyes of someone else (Gordon, 2007). Most people believe that empathy is mainly just about the cognitive component. But did you know there are two kinds of empathy (Decety and Ickes, 2009)? Yes, there is *Cognitive empathy* where a person perceives what another person is thinking: "She must be *telling* herself this was a mistake." Then, there is also what we call *Affective empathy* which is the ability to sense what another person is experiencing emotionally: "She must be *feeling upset* about this mistake."

Of course, there's much more to the process of empathy. But should you want to stretch your ability to feel for another person, try these tips:

1) Ask yourself what must this person be thinking? This will broaden your cognitive empathy.

2) Same goes for affective empathy - imagine what feelings and emotions might be stirring within another person.

3) If it's hard for you to "be in another person's shoes", ask yourself what YOU might be thinking or feeling if you were in a similar situation.

We must be aware that emotions shape how we perceive ourselves, others, and the world. Thus, tapping on the affective component of empathy will give us a better understanding of others' feelings.

There are a lot of ways to increase one's empathy: (www.empathysymbol.com/EmpathySymbol.htm)

- Dialogues
- Literature (Story Telling)
- Theatrical Drama
- Films

Although the ways mentioned above can boost a person's ability to empathize, and if empathizing is all about effective communication, then we are still faced with a challenge to a better understanding: language barrier. Language barrier serves a constant reminder of how different we are from each other. Ever wonder why you feel sad whenever you feel a melancholic song (Vouskoski, Thompson, McIlwain, & Eerola, 2011)? Have you ever danced to pumped-up beats even if you've never heard the tune before? That is empathy through music taking over (Krista, 2012). Some people may underestimate the power of music but we do experience and encounter it in our everyday lives.

#### Music as an Effective Tool

Every known society has music. Music can be considered the most universal form of language (Cohen, 2008). It reaches even the illiterate and uneducated. It breaks the language barriers and cultural differences. It can calm the senses and heal the spirit. It can bring hope to the distressed and joy to the depressed. Music has been long identified as a universal language (Mauro, 2003). It has the ability to build up feelings of affinity and cohesion. I want to quote these powerful words of the Cape Verde Ambassador, His Excellency, António Pedro Monteiro Lima in one of his speeches in support to using music as a powerful tool for peace (Lima, 2010):

"During war, Music brings serenity, happiness and hope. After war it brings dynamism and energy for reconstruction, galvanize juvenile minds for action and make happiness an object of desire. During peace, it brings comfort of mind, awareness on love and motivation for the future. In front of different cultures or ideologies it brings cooperativeness, understanding and create unperceived ties among people. Even in front of different languages, songs become understandable for everyone and appreciated when your mind is touch. Music has the power to comfort us, heal us and make us feel at ease during the most difficult times of our lives."

In most parts of the world, music is still perceived as a simple form of entertainment. But recent studies show that music is much more than that. There are actually scientific bases linking music to therapeutic and holistic developments in different parts of the world (Nayak, Wheeler, Shifflet, & Agostinelli, 2000). A couple of pilot studies, projects, therapy and for trauma survivors have been done and are still ongoing around the globe (Skyllstad, 2005) including South Africa, Chile, China, Germany, Lebanon, Israel, UK, and the United States. (Compendium of Music as a Natural Resource, 2010)

In terms of using music for sustainable peace, there is a project in Greece called the Music Village where they practice ethnic and social differences as creative incentives rather than obstacles; the project offers a model for social coexistence, in which the global language of music becomes the common bond. A similar program in Israel called Live Music Encounters (LME) focuses tolerance and mutual respect, and serves all schools of diversified beliefs and teachings such as Jewish, Christians and Muslims.

In the realms of the medical field, studies and interventions using music have involved trauma survivors of natural disasters, political conflicts, psychologically disturbed men, abused women, and soldiers suffering from stress, victims of terrorism, torture and political conflicts (Robertson, 2010).

For instance, In response to the terrorist attacks on the World Trade Center in New York City on September 11, 2001, the "New York City Music Therapy Relief Project" was created in which 33 professional music therapists provided direct client services in 20 locations throughout NYC, together facilitating over 7,000 music therapy interventions for children, adults, and families of the victims. The goal was to help those struggling with the aftermath of the attacks to reduce stress and cope with trauma through the focused use of music and music therapy interventions.

The Iraqi refugee population in Amman, Jordan also underwent music therapy. All clients that participated in the project were registered refugees with the Office of the United Nations High Commissioner for Refugees (UNHCR). Many clients had experienced trauma, either first-hand or second-hand and some were torture survivors. Clients suffered from a range of issues such as sexual abuse, suicidal feelings, multiple disabilities, emotional trauma, fractured family situations, and behavioral problems. The populations treated included entire family units, children, and adults and the techniques used include instrumental and vocal improvisation, songwriting, lyrics analysis, music and imagery, music and art and music-assisted relaxation.

More and more organizations are using music as a form of therapy. One of the biggest and most universal that is focused on global crisis intervention is the World Federation of Music Therapy (WFMT); it is an international organization bringing together music therapy associations and individuals interested and active in developing and promoting music therapy globally through professional exchange, collaboration, and action. WFMT is an international body, with officers, commissioners, and regional liaisons in Africa, Argentina, Australia, Brazil, Canada, China, Finland, India, Ireland, Korea, Spain, United Arab Emirates, and the United States of America.

Being long been identified as a universal, innate language, we can say that music has no natural boundaries. It has the ability to build up feelings of affinity and cohesion. It is an essential remedy to cure souls and minds, to create harmony and put foundations for reconciliation, or simply to do things better in a time of tremendous challenges for the world and for humanity (Titulaer, 2012).

Aside from various interventions and treatments mentioned above, music is also already being used for peace-building (Urbain, 2007).

In Greece, they operate a Music Village where they create a learning community by overcoming ethnic and social differences (www.music-village.co.uk/). Israel's Live Music Encounters targets young children, teaching tolerance, social inclusion and mutual respect through music in Jewish, Muslim, and Christian schools (http://sites.levinsky.ac.il/livemusic/). Proving once again that music can greatly help, if not solve, humanity's greatest dilemmas.

A reading online suggests that a sustainable peace should include at least these three elements: respect and protection of the environment, social justice, and global awareness of our common humanity (www.world-of-empathy.org/).

If environmental destruction is not halted, if global warming continues unabated, if climate change becomes more and more chaotic, whatever measure of peace we have now will be obliterated. Indeed, there can be no peace without the basic human security. The same goes for social justice. People who are exploited and oppressed are bound to revolt one way or another, destroying whatever superficial stability had been reached. Global awareness of our common humanity involves a better understanding and practice of empathy. We need to realize that no matter how different the colors of our skins are, no matter what economic status we came from, no matter what educational background we have; we share a common world and a common humanity. And despite our differences in beliefs and culture,

we have an intrinsic capability to understand each other through empathy braced by the music we share.

Empathy through music can strengthen these three elements for sustainable peace. Using music as a tool of communication, the message we are trying to get across, will not just be better understood, but more importantly, better felt.

#### Progressions in Cognitive Neuroscience Supporting the Use of Music

The discovery of mirror neurons a decade ago and other findings in cognitive neuroscience gave us a deeper understanding in music and its effect on humans. With this knowledge, we can use music in a more specific and effective purpose especially towards medical development.

Music affects mirror neurons in our brain and brings us to the state of EMPATHY (Molnar-Szakacs & Overy, 2006; Overy & Molnar-Szakacs, 2009).

Knowing the link between mirror neurons, music and autism, there is a possibility that we may be able to treat autism by using music in the near future (Molnar-Szakacs, 2009; Oechslin et al, 2010; Wan et al, 2010; Wan & Schlaug, 2010; Wan et al, 2011).

And with the medical information showing the connection between brain reward circuit, music and depressive disorders in human, we can now use music as an intervention method for depression. We also know that brain reward circuit has linkage with drug and game addiction. And this information will serve as the next step for us to find more facts that may lead us to a new treatment modality for drug and game addiction with the use of music (Menon & Levitin, 2005).

Music is such a powerful thing, and can be used in a variety of purpose. But the most important thing is that music can build up empathy between all of us. Only EMPATHY can keep our society, our world from conflict, violence, and even war.

Being a musician, teacher, or physician who is interested in music, we are carrying a powerful peace-making instrument in our hands, why don't we use it to help humanity reach a more peaceful and sustainable future. We need close cooperation from each other. We need to share experiences, knowledge and expertise in our own disciplines to make music a tangible and acceptable tool of Peace for All.

#### Conclusion

The diversification of disciplines had undeniably given us benefits. But everything has its cost; we can't completely deny that so many problems emerged as result from it too. It's about time we reconsider about this rather controversial topic, and look into a different perspective. The world in the 21<sup>st</sup> century requires not only single distinguished discipline but all disciplines that can make a peaceful world for all of us. Now is the time for discipline integration. It is the time to merge Music to Medicine, to Education, and Human & Natural Science for a better quality of life.

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#### Appendix

What the World Needs Now Is Empathy, True Empathy. http://www.empathysymbol.com/Empathy Symbol.htm.

Musical Village. http://www.musicvillage.co.uk.

Live Music Encounters for Kindergartens, Elementary and Secondary Schools. http://sites.levinsky.ac.il/ livemusic.

What is empathy?. http://www.world-of-empathy.org.