

# PUENTES

IBERO-AMERICAN MAGAZINE OF MUSIC THERAPY IN CRITICAL CARE

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PUENTES - IBERO-AMERICAN MAGAZINE OF MUSIC THERAPY IN CRITICAL CARE

YEAR 2021 NUMBER 2 ISSN IN PROCESS

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# Editorial

Among the interventions carried out by music therapy in the critical care area we find the care of patients on mechanical ventilation.

Until now, the ventilated patient is in the critical area, the population where music therapy presents the greatest amount of scientific evidence, favoring not only the decrease in drug intake but also the days of mechanical ventilation. Likewise, reducing anxiety and pain both in the weaning processes and in endotracheal aspirations. Added to this, recent research is showing benefits not only to patients but also to institutional economies.

In this issue we will try to share updated information on the matter, reflecting the most applied interventions, as well as the benefits in the short and medium term. As an interviewee, we will have the honor of sharing a meeting with Dr. Cheryl Dileo, a world leader in music therapy and a great researcher.

We hope that our magazine can illustrate the benefits and concerns of music therapy with this population, favoring greater knowledge and thus promoting interdisciplinary work focused on the health of our patients, from a humanizing health perspective.

Editorial

team



# Music therapy in ventilated patients

## Authors

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## Introduction

The participation of qualified music therapists within Intensive Care Units in adult, child and neonatal patients, has had a notable development in recent years. Medical services have begun to include specialties that offer non-pharmacological interventions, which make a great contribution to the quality of life of patients. In this sense, music therapy offers important interventions that make it possible to work on aspects related to neurorehabilitation, such as reducing anxiety and stress in patients receiving mechanical ventilation (Bradt, J., Dileo, C. 2014) (Ferrari, K et al 2017).

As in other areas, emotional support for the patient and her family will also be something that will be worked on a daily basis. In any case, it is important to note that recent research allows us to account for the specific contribution of music therapy in this area, which makes it possible to gain recognition by the medical community and open jobs and a comprehensive approach.

People who are going through hospitalization processes in critical care areas present different problems and needs, related to their situation of physical, mental, emotional, social or spiritual vulnerability. Frequently, critically ill patients present a deterioration of respiratory function due to intra or extra pulmonary causes, related to their critical state of health. Faced with this clinical situation, Mechanical Respiratory Assistance (MRA) is required, a life support therapy that is responsible for fulfilling this function. MRA can be non-invasive (NIV) or invasive (IMV). The latter involves the placement of an orotracheal (by mouth) or endotracheal (tracheostomy) tube, and requires the administration of a series of muscle blockers and sedatives. IMV can cause adverse effects and therefore should be discontinued as soon as possible. The process of the withdrawal of removing a patient from the IMV is known as weaning.

## THE MUSIC THERAPY IN CRITICAL CARE AREA

Music therapy offers important interventions that make it possible to work on aspects related to neurorehabilitation, such as reducing anxiety and stress in patients receiving mechanical ventilation.

(Bradt, J., Dileo, C. 2014) (Ferrari, K et al 2017)

In 2013, the "Evidence-based clinical practice guideline for the management of sedoanalgesia in critically ill adult patients" was published using MEDLINE as a search strategy through PUBMED, Cochrane library databases through The Cochrane Library and the Latin American and Caribbean Literature in Health Sciences database. This guide contains both pharmacological and non-pharmacological intervention proposals, including music therapy. The strength of the recommendations for all interventions was rated as 1 = strong, or 2 = weak, and the quality of the evidence as A = high, B = moderate, or C = low. In this sense, the degree of recommendation for music therapy was strong, with a moderate level of evidence (1B). Said guide states that "Music therapy can contribute to the relaxation and reduction of pain in patients in the ICU. Music can mask noise. In the postoperative period of cardiac surgery, listening to music during the first day was associated with a decrease in the sensation of discomfort due to noise, heart rate and systolic blood pressure. A similar effect has been obtained in cancer patients admitted to the ICU.

### **The critical care patient**

In mechanically ventilated patients, music therapy is associated with a decrease in anxiety, systolic and diastolic blood pressure, and heart rate. However, further studies are required to conclude that music therapy is effective in all patient groups" (Celis-Rodríguez et al., 2013). Several lines of intervention emerge from the foregoing: reduction of pain (pain management), reduction of sensation of discomfort, reduction of heart rate and blood pressure in cardiac and oncological patients, as well as reduction of anxiety in ventilated patients. Likewise, the guide highlights and invites the application of the discipline due to its innocuousness. "Given that music therapy is an intervention without adverse effects, and has a low cost, it should be considered in measures to control anxiety and noise in the ICU" (Celis-Rodríguez et al., 2013).



## **Four important intervention goals of music therapy in the critical area**

Stabilization of biomedical parameters such as HR and FR

Anxiety in ventilated patients

Pain management and comfort

(Celis-Rodríguez et al., 2013).

## Evidence in music therapy

Among the numerous investigations carried out in this area, a systematic review published in the Cochrane Review stands out, which concludes that listening to music can be beneficial for reducing anxiety in patients with mechanical ventilation. Listening to music reduces respiratory rate and systolic blood pressure, suggesting a relaxation response. Furthermore, a large study reported a greater reduction in sedative and analgesic intake in the group listening to music compared to the control group (Bradt & Dileo 2014). Another area where evidence is beginning to be published is the effect of music therapy on endotracheal aspiration of patients with mechanical ventilation, where the contribution of the discipline can be seen as a therapeutic tool to lower pain scores (Yesmin et al 2015 ). Regarding the sedative effect in critically ill patients receiving mechanical ventilation, a randomized clinical trial was published, which managed to show that patients decreased anxiety levels compared to the control group and significantly reduced the intensity and frequency of pharmacological sedation. (Chlan; et al 2014). In relation to its application in patients without sedation at weaning, research was carried out that was able to verify that music therapy reduces anxiety, pain and provides relaxation in a comparable way in non-intubated and intubated ICU patients during ventilator withdrawal. The contribution of music therapy, due to its psychophysiological action, could effectively participate in the improvement of patients by reducing anxiety and moral and/or physical pain.



The intentional use of the potential and properties of music acts through multiple interactive mechanisms (sensory, cognitive, affective and behavioral), allowing direct action on the global components of the patient. (Jaber, et al 2006)

Finally, another research to highlight is the effect of music on anxiety and pain in patients with mechanical ventilation, where the effectiveness of music to reduce anxiety is evidenced, together with physiological variables that accompany it in awake adult patients admitted to the ICU and with IMV. (Sanjuan Navais et al 2012) Despite the fact that many of the published articles refer to the use of music in the care of patients receiving mechanical ventilation, a large number do not include the figure of the music therapist as part of the team, confusing the use of music with music therapy, reducing an academic discipline, to a simple intervention that usually consists of making the patient listen to edited music through headphones. In this sense, the authors of this article consider it relevant to highlight recent publications that include the participation of music therapists, valuing not only the need to recognize the specificity of the specialty, but also the advances in research in music therapy.

With this objective, the authors of this article carried out a study of articles published in scientific journals in the last 10 years that analyzed music therapy intervention in patients with ARM. The search was performed using as keywords: Music therapy, MRA, ventilated patients. From this search, 16 articles were selected, including clinical trials and systematic reviews. The selection criteria for the clinical trials consisted of verifying that it was carried out by a qualified music therapist. In the case of systematic reviews, the inclusion criterion was that they contemplate studies carried out by music therapists and/or other professionals, since to date no reviews have been published that fully include studies carried out only by music therapists.

From this first analysis, only 7 (seven) studies were possible to use, since the rest of the articles contain the term "music therapy" without counting qualified music therapists among the researchers (many studies are carried out by nursing staff). It could be inferred that this is related to current regulations regarding the professional exercise of music therapy in different countries, which still allows its exercise without having a qualifying title. Despite not including in our analysis articles belonging to the area of "music and medicine", it is emphasized that these findings have opened doors for research and provided scientific evidence, which makes it possible to continue in the search for evidence-based results and effects.

### **Analysis of selected articles**

The analysis of the 7 resulting articles will be developed from three relevant axes, on the one hand the objectives of the studies, on the other the research design used and the parameters evaluated and on the other the results or findings obtained.

#### **Analysis 1:**

##### **Objectives**

Among the study objectives, there is a prevalence in identifying, reviewing and evaluating the effect of music therapy in this population. In general, there is a tendency to compare groups of patients in MRA who receive music therapy, with those who only receive standard treatment, in order to define the areas in which the intervention generates the greatest impact. The search to analyze the costs and benefits of incorporating music therapy to the treatment of patients in MRA also prevails.

#### **Analysis 2:**

##### **Research design and parameters evaluated**

Of the articles analyzed, five (5) bibliographic reviews and meta-analyses stand out, which collect the scientific evidence available to date on music therapy in patients with MRA. In this sense, it is very important to highlight this type of publication, since they not only generate a synthesis of what has been published, but also offer a much more complete vision of the contributions of music therapy.

The rest of the publications consisted of two (2) clinical trials, one to analyze the economic profitability and determine if the intervention has an impact on reducing anxiety and a pilot study that analyzed the impact of music therapy in patients with MV, who suffer from anxiety and agitation.

### Analysis 3: Findings found

Both literature reviews and clinical trials have shown significant findings that will be detailed below:

- Decrease in MRA days (Davis and Jones 2012), (Ferrari, et al 2017), (Chlan et al 2018)
- Reduction of anxiety and agitation (Bradt, Dileo 2014), (Hetland et al 2015), (Park Y & Park 2019), (Trowbridge, et al 2017), (Ferrari, et al 2017).
- Positive impact on biomedical parameters such as heart rate and systolic blood pressure (Bradt, Dileo 2014), (Hetland, et al 2015), (Ferrari, et al 2017).
- Decreased intake of sedatives and therefore cost reduction (Chlan et al 2018).
- Prevalence in the use of perceptive musical experiences (Ferrari, et al 2017)

Among the results obtained, the most relevant music therapy intervention consisted of favoring the reduction in anxiety and agitation during the days of MRA and weaning. This impact could be noticed through the application of scales, and also from the registration and analysis of biomedical parameters. In this sense, it is possible to note that the possibility of generating this impact directly favors the patient, but also the institutions, allowing the reduction of hospital days and the administration of sedatives. Furthermore, most studies investigated intervention during mechanical ventilation days and only one study explored musical intervention during weaning from the ventilator. The studies used quantitative methods to assess physiological signs, anxiety, agitation, and sedation. All the articles referred to the use of perceptive musical interventions. One of the reviews highlighted that the studies implemented styles of music that were considered "relaxing", including nature-based sounds, classical music and easy listening (Hetland et al 2015).

### Conclusions

It is essential to publish the contribution of music therapy within the critical care area in the care of the ventilated patient. For this, it is important to highlight the advances in non-pharmacological interventions such as music therapy, which show a benefit not only for patients but also for institutional economies, favoring a decrease in drug intake, among other things. Likewise, it is important to be aware of the need for further research by the music therapy community, which is already carrying out clinical interventions in a growing number of institutions. It is hoped that the published information will promote the conduct of research that will increase the evidence collected to date. Likewise, it is intended to bring readers updated content that promotes new lines of research, taking into account what has been published or deepens what has been studied, favoring the dissemination of the scope of music therapy in the critical care area.



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# Mechanic ventilation

Authors: Sheila Pereiro y Saúl Vara (España)

## Data of interest

**Mechanical Ventilation (MV) is considered a life support treatment and can be defined as a mode of artificial ventilation that uses a machine (ventilator) to supply or collaborate in a person's breathing. Generally, it is used in patients undergoing general anesthesia, in patients with severe alterations in gas exchange, and in patients with ventilation alterations, whether of muscular, neurological or respiratory origin (Romero, 2020).**



### Noninvasive mechanical ventilation

Artificial ventilation performed through external devices (nasal cannulas or face masks)

(Tobin and Manthous, 2017)

### Invasive mechanical ventilation

Artificial ventilation performed by a ventilator connected to a tube lodged in the patient's trachea through the process of intubation or tracheostomy.

## There are three broad categories of ventilatory modes:

Fully controlled by the ventilator, in which the patient is not actively contributing

Partially assisted or assisted or supported, where a combination of respiratory support and patient effort occurs

Completely spontaneous, in this case the inspiratory flow is generated entirely by the patient



The process of disconnection from MV, also called "weaning" refers to this process of progressive reduction of ventilatory support, in which the patient gradually "recovers the reins" of his ventilation until achieving totally independent breathing allowing extubating and definitive disconnection from MV (Pham et al., 2017).



# IN DIALOGUE WITH CHERYL DILEO

## INTERVIEW

In times of the COVID19 pandemic, our regional editor Sheila Pereiro (Spain), was able to hold a virtual meeting with Dr. Cheryl Dileo (USA), where they discussed the particularities of music therapy in the critical care area, reviews published by Dileo in the Cochrane Library and her view of the Music therapy in the Iberoamerican region.



La Dra. Cheryl Dileo, MT-BC es directora fundadora del Centro de investigación de artes y calidad de vida y ex directora del programa de doctorado en musicoterapia de la Universidad de Temple (EE.UU.). Actualmente es la Directora Académica del nuevo Programa de Maestría en Musicoterapia en la Universidad de Chulalongkorn en Bangkok.

Autora / editora de 16 libros y más de 100 artículos y capítulos de libros, incluidas 7 revisiones Cochrane, ha sido presidenta de la Federación Mundial de Musicoterapia y de la Asociación Nacional de Musicoterapia (EE. UU.), además de profesora y consultora en las principales universidades y revistas en musicoterapia a lo largo de todo el mundo. Ha recibido por ello diversos premios

Tiene además una amplia experiencia clínica. Sus áreas de especialización incluyen musicoterapia médica, manejo del dolor, atención cardíaca y oncológica y ética profesional.

**For the editorial team that makes up this magazine, it is a privilege to be able to count on Dr. Cheryl Dileo on this occasion. So first of all, we want to thank you for your desire to share your time and your reflections with our readers. You have dedicated an important part of your professional work to the completion of the Cochrane Review. What are these reviews and why is it so important for music therapists to have these reviews done?**

When I became interested in the field of music therapy in medicine in the 1980s, I felt it was important to provide the evidence on the effectiveness of music therapy with medical patients to the various health professions. I knew that music therapists had to speak the same language as physicians to advance our field, and that language involves rigorous testing. Therefore, I began to collect hundreds and thousands of research articles on musical interventions with different types of medical patients. The challenge was to clearly and accurately summarize these various articles when discussing them with medical professionals. In the mid-1980s, a method called meta-analysis became popular. It allowed the researchers to summarize the results of many studies and come to a conclusion about the effectiveness of the intervention, the size of the effect, and whether the studies agreed on the effect or not. The first meta-analysis we did was published in book form in 2005. We (Joke Bradt and I) looked at 180 studies. After that, a colleague told me about the Cochrane Library: "The leading journal and database for systematic reviews in health care." It is the gold standard in medical evidence and is consulted by medical professionals around the world to find out if a specific treatment is effective.

The published reviews are of very high quality and provide reliable evidence, as they are supervised at every step by an international team. He wanted music therapy to have a place in the Cochrane Library, so Bradt and I started work on our first Cochrane systematic review in cardiology. This was followed by many more, and we were able to see how people from all over the world read the reviews and how many articles in everyday magazines and on websites were published about our reviews. So, we feel that our reviews have brought a lot of attention and interest to our field, and also provided important evidence that is essential to being recognized by the medical profession.

### **In the field of interventional medicine and critical care, how many reviews have you published?**

La publicación de una revisión Cochrane compromete a los autores a actualizar los datos cada varios años para incluir nuevos artículos que se publiquen. Originalmente publicamos 6 revisiones Cochrane en musicoterapia y una en danzaterapia. Hemos actualizado varios de ellos y actualmente estamos completando una actualización de la revisión sobre el cáncer, que es la más grande hasta la fecha con más de 80 estudios. ¡Estamos muy felices con los resultados!

### **You emphasize on numerous occasions the importance of differentiating between interventions in the field of medicine that may seem similar but, in essence, are very different and on which you have researched in depth: music medicine and music therapy in medicine. Can you explain the difference to us?**

Music therapy, as we know, involves a trained music therapist, a relationship between patient and therapist that occurs through music, a series of music therapy interventions, and a process of assessment, treatment, and evaluation.

Music medicine is often used by medical professionals. Pre-recorded music is usually used and the choice of music is made by the medical professional or the patient. Patients can choose from a list of pieces compiled by the medical professional or they can use their own music. In music medicine, there is no relationship with the patient that occurs through music (although there may be a medical relationship or no relationship at all). There is no assessment, treatment and evaluation process. Basically, patients listen to music before or during a medical procedure as a form of distraction to reduce stress.



**"We feel that our reviews have brought a lot of attention and interest to our field, and also provided important evidence that is essential to being recognized by the medical profession"**

**The fields of intervention in which music therapy is effective in the field of medicine are very varied and/or moments of treatment. On this occasion, we focus on patients undergoing mechanical ventilation in the ICU. What are the main benefits found in this area of intervention?**

I can talk about our Cochrane review on mechanical ventilation.

Its purpose was to 1) examine the effects of participation in standard care combined with music therapy or music medicine interventions with standard care alone 2) compare the effects of music selected by patients with music selected by researchers. 3) To compare the effects of different types of music interventions (eg music therapy versus music medicine). Fourteen studies were included in our review. 13 were music medicine and 1 music therapy. We found a large and clinically significant effect of music on anxiety. We also found that listening to music consistently lowered respiratory rate and systolic blood pressure, suggesting a relaxation response. In addition, one large study reported greater reductions in the need for sedatives and analgesics in the music-listening group compared to the control group, and two other studies reported trends in reductions in sedative and analgesic intake for the group of music. One study found significantly higher sedation scores in the music listening group compared to the control group. We definitely need additional studies on music therapy in this area.

**Within your broad field of both theoretical and clinical knowledge, do you know the work that is being carried out in music therapy in the critical area in Ibero-American countries? What assessment do you make of it?**

I haven't had enough time to look at this work, so I couldn't give you an informed answer.

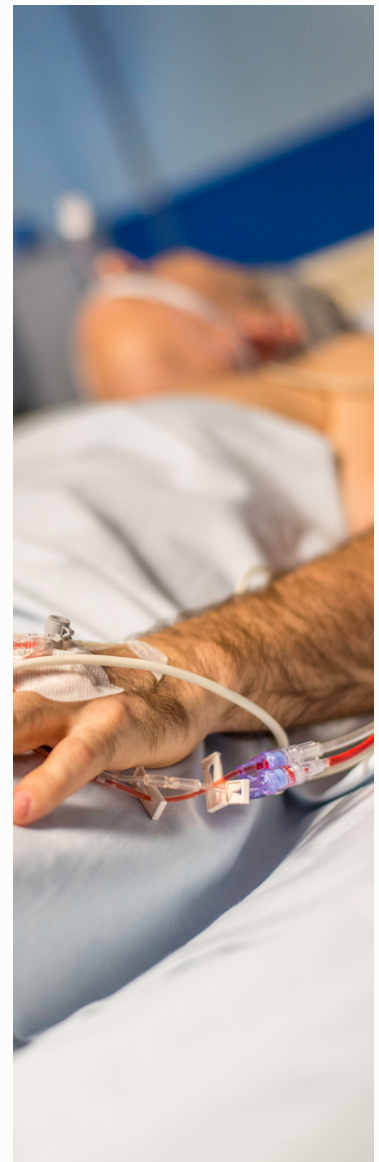
**Music therapists must be aware of the importance of strengthening our clinical practice through scientific evidence. But we need to continue learning and training to improve our intervention skills in music therapy with mechanically ventilated patients. From the scientific evidence and from your experience, what are the recommended music therapy models and/or techniques in this area?**



I believe that music therapists working in this area should have the following: very strong skills in the various music-based stress reduction methods; ability to clinically improvise music to match and modify physiological symptoms of stress and respiration, especially during mechanical ventilation weaning procedures; ability to reflect emotions and provide musical support for pain, depression, etc., especially as mechanically ventilated patients cannot communicate verbally; ability to assess preferences and provide pre-recorded music so that patients can use this music for themselves when the music therapist is not present; ability to provide significant sensory stimulation through music; ability to use family-centered methods; the ability to facilitate simple improvisation for the patient using whatever instrument is possible; knowledge and use of efficient music-based relaxation methods for healthcare personnel; and lastly, knowledge and the ability to support the compassionate extubation of patients who are at the end of life. Of course, there are many more.

**In our experience in this area, we have been able to experience the importance of being part of the interdisciplinary team in the ICU. It seems impossible to imagine an intervention in this area without counting on the extreme coordination with doctors, nurses, physiotherapists... what do you think about it? What place does music therapy have in the ICU interdisciplinary team?**

I think the interdisciplinary team is important and the music therapist should be an active and collaborative member of it, although ICU teams are different in the US. Depending on the type of ICUs, there are many types. Time is always of the essence here, and especially for university-affiliated teaching hospitals, music therapists may also have a role in teaching music therapy to medical students and residents. However, no matter what the circumstances, the music therapist has a unique role in observing many patients' needs that would not normally be observed or discovered by medical professionals. Therefore, the knowledge of the music therapist is especially valuable in the team, since the information he brings is unique. In many ways, the music therapist might see more often the "healthy" parts of the patient: the musicality and creativity of the patient. I firmly believe that the music therapist must have the respect of working autonomously as a music therapist, in other words, the music therapist must be able to plan the music therapy treatment without the need to have the direction of the doctors. In addition, the music therapy session must be respected as confidential and there should be no intrusions by staff into the session unless very necessary. In other words, the work of the music therapist must be respected as important and essential.



**This area of music therapy intervention in mechanically ventilated patients is a very very specific area, due to the uniqueness of the physical environment in which it is found, due to its great technification, due to the special state of vulnerability of its patients. This makes, Likewise, this area of intervention is exciting. Do you think that specialization is necessary for music therapists who want to work in this area? What are the main skills and attitudes that a music therapist requires in this area?**

I believe that a specialization in medical music therapy would prepare the music therapist to work in this area in addition to a hospital orientation and supervision for the beginning of the practice. Every critical care situation (at least in the US) is different, as they are often highly specialized (eg, postoperative, trauma, cardiology, pediatrics, burns, etc.). And intensive care units generally vary from hospital to hospital. There is no way to prepare someone in advance for the details of every situation, but general knowledge and familiarity with the healthcare team goes a long way in advancing music therapy training in medicine. I think this is a very exciting job!

**Currently, at the Music, Art and Process Institute we are developing an ambitious Music Therapy Research Project with MV Patients, in agreement with BioAraba. What do you think is the vision of music therapy that other professionals have? Is it important to expand the dissemination of music therapy in patients on mechanical ventilation?**

For your first question, I believe that medical professionals do not correctly distinguish between the various types of musical interventions in hospitals. For example, here it is common practice for musicians to play music in common spaces and in certain hospital units. So I think it's very important for music therapists to educate medical staff so that they can understand the goals, methods and power of music therapy, especially as more than just enjoyable entertainment and distraction. They need to know the evidence.

It is also very helpful for music therapists to provide some musical experiences (relaxation, singing, improvisation, etc.) so that staff can gain a personal understanding of the power of music therapy.

In addition to these training sessions, I believe that education is an ongoing process (as I mentioned earlier, teaching nursing and medical students, etc.). It is important to be open to their questions and comments about music therapy.

**Thank you very much Dr. Dileo for sharing with us your extensive experience in this field of intervention and for highlighting the importance of training, dissemination and recognition of our work in this area.**

Thank you for this opportunity. I congratulate Karina Ferrari and the members of the editorial team for their vision and hard work in making Revista Puentes happen! You have my support, admiration and best wishes!



# COMMENTED SCIENTIFIC ARTICLE

Elvira Alves

In this session we will discuss the article “Economic Evaluation of a Patient-Directed Music Intervention (PDMI) for ICU Patients Receiving Mechanical Ventilation (MV) Support” published in 2018 by Linda L. Chlan, Annette Heiderscheit, Debra J. Skaa and Marjorie V Neidecker. The researchers analyzed the cost-effectiveness of hospitalization in the ICU, comparing the hospitalization costs of patients receiving usual care and those of patients receiving the intervention (PDMI) in the ICU, that is, with the musical intervention. The authors describe the average ICU daily cost in the US, accounting for a 61.1% increase in ICU daily value in the period 2000-2010. In this way, Chlan (et al, 2018) present this musical intervention as a low-cost non-pharmacological intervention for anxiety control and reduction of sedatives in patients with MV.

The ICU is considered the most expensive sector of a hospital, and because it is an essential hospital service, studies have been carried out in order to analyze the factors that affect the costs of intensive care. Rotta et al (2018) point out that 12% of the cost of hospital services comes from the costs of the Intensive Care service, and the use of Mechanical Ventilation is directly associated with the high cost, where 33% of patients admitted to the ICU need MV, which implies a longer hospital stay and, consequently, a greater use of medications. The authors also emphasize the need to provide interventions that can favor the weaning process from MV, minimizing the time the patient is subjected to MV, thus providing a reduction in ICU costs.

Healthcare institutions today must deal not only with operations and processes geared toward patient care, but also with the need to provide cost savings in the hospital environment without losing quality of patient care. Hospital managers have been discussing possible cost reduction strategies, and point to the humanization of care as one of the main processes to mitigate hospital expenses, since the patient-centered approach through humanized care promotes the reduction of unnecessary procedures, as well as the risks of clinical complications and can even speed up the patient's recovery.

For this reason, it is worth mentioning that music has been a widely used resource by several professionals in the hospital setting with the aim of providing humanized assistance. However, it is important to remember that the therapeutic action of music goes beyond humanization in health, being used in the health area to meet the physiological, psychological and spiritual needs of patients.

In this perspective, the discussion of the work of Chlan et al (2018) is necessary, since the findings corroborate the insertion of music therapists in health institutions, especially in the ICU. The article is a randomized study that included a group of 126 patients who received PDMI and a group of 125 patients who received intensive care without PDMI. The PDMI intervention consists of providing patients with a headset and an MP3 player with a musical sequence chosen by a qualified music therapist.



The following variables were considered for the analysis of the study: mean age of the patients, mean length of stay in the ICU, mean time on MV, level of anxiety, severity of the disease upon admission to the ICU, chronic health assessment and amount of administered sedatives. The results of the study were very encouraging, showing that music intervention could reduce costs by around US\$2,000 per patient, and still control anxiety by reducing the use of sedatives.

Validating these findings, the music therapist Kenneth Bruscia (2000) evidences the use of music in a hospital environment from two variants of the technique most used in this environment, musical hearing: 1- Musical anesthesia that manages music with the aim to favor the potentiation of sedation and analgesia, as well as a resource to control symptoms such as pain and anxiety; and 2- Musical relaxation, which allows stress, tension and anxiety to be controlled through listening to music.

Therefore, the effectiveness of music therapy as an intervention to control symptoms, as well as to promote well-being and improve quality of life, has been widely tested and discussed in the specialized literature. Research shows that musical appreciation promotes the release of endorphins and the reduction of catecholamine levels, favoring changes in blood pressure, heart rate and respiratory rate, as well as lower oxygen consumption and less need for analgesia (CHAN et al, 2006). It is worth mentioning that music therapy, being a non-pharmacological resource that can be used in all age groups, is also presented as a low-cost means of intervention.

Although the results presented in the study are promising for the implementation of music therapy in the ICU, they highlight some aspects of the practice of music therapy, since, although the experience of listening to music is the most used, as mentioned by Bruscia (previously reported), in general, music therapists recommend that the musical choice be made by the patient, in the article, although it is reported that the songs chosen for musical listening are preferred by the patients, it is not clear what criteria the music therapist used to make the playlist for the intervention.

**The results of the study were very encouraging, they showed that the musical intervention could reduce costs by around 2000 US dollars per patient, it could also control anxiety, and reduce the administration of sedatives.**

An important question to raise is about the mobilization of emotional contents that can arise during listening to music and how the music therapist worked on them. We consider the therapeutic relationship crucial for the elaboration of contents that may arise during the hearing, avoiding that the musical activity has a negative connotation in the evocation of memories during and after the hospitalization period. It should be remembered that emotions and feelings can also influence vital parameters such as blood pressure, cardiorespiratory rate, among others.

Another important aspect to consider is that, in order to carry out the study, it is necessary for patients on MV to be able to rate the level of anxiety, as well as to self-administer the musical intervention. And yet, symptoms such as pain and delirium, events associated with MV,

which can affect the stay in the ICU, thus influencing the cost of hospitalization, were not considered. However, the authors acknowledge the limitations of the study and point out the need for more studies, since it is the first study published on the economic evaluation of musical intervention for ICU patients.

Thus, we highlight the importance of conducting further studies in this area, as well as the structuring of research protocols, with the aim of minimizing bias. The current development of music therapy in the critical care area each day provides more evidence of the effects it can offer not only in comprehensive patient care but also in reducing the length of hospital stay in the ICU and support time of MV, provide significant savings in the total cost of hospitalization.

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# IBERO AMERICAN AGENDA

BOOKS, FORMATION, RESEARCH AND NEWS OF THE REGION



Recently published, this book shows interventions and case histories from ICUs, Palliative Care Units, Oncology Units, Newborn Units and cases of disease like (among others) fibromyalgia in the context of the Spanish Health System. It presents in detail the professional practices of music therapists that use a person-based approach, with music and its systematic applications and based on scientific evidence. It can be bought here:

[:https://www.agruparte.com/producto/musicoterapia-y-medicina-intervenciones-y-casos-clinicos/](https://www.agruparte.com/producto/musicoterapia-y-medicina-intervenciones-y-casos-clinicos/)

Torres, E., Pereiro, S., y Del Campo, P. (2020). Musicoterapia y Medicina. Intervenciones y casos clínicos. Vitoria-Gasteiz: Agruparte Producciones.



Published at the end of 2020, this guide was created in cooperation between Project HUCI (Humanizando los Cuidados Intensivos, Humanizing Intensive Care), The Foundation "Diversión Solidaria" and the University Hospital of Torrejón de Ardoz. It describes how a program of Music Therapy could be implemented in ICUs in Spain, and includes a decalog for Music Therapy in Intensive Care Units. It can be downloaded for free from the following URL:

<https://diversion-solidaria.org/encuentro-online-de-musicoterapia-y-emociones-positivas-en-la-uci/>

Martín, M.C., Heras, G., Ramos, B., Bernal, E., Alcántara, J., Benítez, A., y Guzmán, A. (2020). Guía para el diseño e implementación de un programa de Musicoterapia en una Unidad de Cuidados Intensivos. España: publicado por Proyecto HUCI, Fundación Diversión Solidaria y el Hospital Universitario de Torrejón.

## POSTGRADE COURSE



## MUSIC THERAPY IN CRITICAL CARE

On March 2021 the Argentinian Society of Intensive Care (Sociedad Argentina de Terapia Intensiva, SATI) will begin giving a course of specialization in "Music Therapy in Critical Areas" directed by Karina Daniela Ferrari. It is an online course that will allow music therapists from all the world over to take part in it, allowing them to access specific evidence-based knowledge in the context of a formation given by first-class specialists. This postgraduate course will last for 1 year and has 20 modules, with classes every 15 days, which will include contents related to the attention of patients in critical situations, from NICU to adults.

For more information:

<https://www.sati.org.ar/index.php/cursos/posgrados>

## MUSIC THERAPY AND COVID19

### CLÍNICAL PRAXIS

Argentinian Music Therapists that are part of the health service teams of the Municipal Government of Buenos Aires have been working from the very beginning of the pandemic giving in-person therapy to patients that have suffered COVID 19. They work in halls named SARIP (Salas de Rehabilitación del paciente Post COVID, Rehabilitation Halls for post-COVID patients). Their goals are diminishing the delirium induced by the high doses of medication, helping patients in the process of being weaned from the diverse devices and IVs, giving emotional help to the patients and their families, and especially preventing Post-Intensive Therapy Syndrome. More information:

<https://www.lanacion.com.ar/sociedad/coronavirus-argentina-la-musica-aliado-inesperado-pacientes-nid2432350>

## Agreement for Research on Music Therapy and Weaning in the Basque Country (Spain)

In October 2020 the Instituto Música, Arte y Proceso, directed by Music Therapist Patxi del Campo; the University Hospital of Álava belonging to the Basque Public Health Service (represented by ICU Dr. Esther Corral) and the Public Research Institute of Health Bioaraba, all of them in Spain, signed an agreement for cooperation and economic support in the frame of the MedTech initiative of the Basque Government (Spain) in order to start research on the effect of music therapy in patients being weaned from mechanical ventilation devices. It is an ambitious and humane project whose sponsors are passionate about that will take place during the following two years. It will involve a network of interdisciplinary specialists in medicine, nursing, statistics, research and, of course, music therapists.

More information:

<http://osaraba.eus/es/la-musica-como-terapia-en-la-uci-de-la-osi-araba/>

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