

## Socio-economic views on music therapy

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**Abstract:** *The intent of this article is to explain the socio-economic benefits of music therapy. The benefits of using music therapy are promoting a cohesive and inclusive society, reducing costs for caring for the sick people in hospitals, hospices, development and enlightenment of preschool children and students, creating more jobs and increasing efficiency and relaxation of the institutional staff. Other important issues addressed in this article are the stages of the sustainable development of music therapy, costs assessment of music therapy in the US as well as the specificity of music therapy in Europe.*

**Key-words:** *music therapy, sustainability, socio-economic benefits.*

### 1. Introduction

Music therapy represents the use of music in a therapeutic manner, in order to achieve physical, psychological, cognitive, behavioural and social benefits. In hospitals, music is used to alleviate pain: it improves patient's mood and counteract depression; promotes movement for physical rehabilitation; calms patients, often helping to induce sleep; eliminates fear and reduce muscle tension for relaxation purposes.

Today, music therapy is used successfully in hospitals, hospices and retirement homes for relaxing patients or to reduce the number of medication, but also in schools, kindergartens and other institutions.

#### 1.1. Stages in music therapy evolution

The origin of music therapy is not known, but its use, healing ceremonies are an ancient practice. In Antiquity, the disease was seen as a lack of balance of harmony. In the Middle Ages, the disease was still seen as a punishment and as a result of sins committed.

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At the end of the eighteenth century, they began to investigate the effects of music on the human body. In this period were initiated experiments with music on heart rate, pulse, circulation, blood pressure, etc. At the end of the nineteenth century, the effect of music began to be systematically studied. They have been looking for relations between music and psychological responses. The link between music and emotions has become an important topic for the medieval world.

The oldest reference to music therapy appeared in 1789 in an unsigned article, entitled "Music Physically Considered" in the magazine Colombian Magazine. In early 1800, writing about the therapeutic value of music appeared in two medical dissertations, the first published by Edwin Atlee (1804), and the second by Samuel Mathews (1806). Also in early 1800 it was recorded the first music therapy intervention to treat medical conditions, but also the first music therapy experiment systematically recorded.

The development of music therapy as a profession seems to be a practice appeared in hospitals, originally from psychiatric asylums. A large contribution to its popularity is rooted in wars. These are considered as a great influence in bringing to the forefront the mental illnesses and to establish strategies for treating problems.

For example, the US Civil War (1861-1865) helped creating the field of neurology that made people understand at an advanced level the brain diseases.

Interest in music therapy continued to win support in the early 1900s, leading to the formation of several small associations.

Although several organizations have contributed to the research, educational courses, books, they failed to develop an organized clinical profession. World War I led to the acceptance of psychiatry as an integral part of medical treatment. The Second World War led to the development of a range of screening techniques, group therapy and increased the use of music in hospitals. During the war, the music was prescribed as an exercise to recovery and retraining of muscles and joints, so that the vocal singing or at a blowing instrument was exercising the lungs and larynx.

### *1.1.1. Recent evolutions of music therapy*

After the Second World War, music therapy has grown in intensity in hospitals across America. Since then, some hospitals in Europe incorporated music therapy in their practice based on tradition and research. Currently, complementary and alternative therapies are increasingly used and music therapy has gained more and more acceptance. The effectiveness of music therapy applied to patients has been demonstrated in the literature by Davies (2002) and includes improvements in pain

relief, agitation, disruptive behaviour, communication, depression and life quality. Hilliard (2003) reported that music therapy decreases anxiety and stress. Gerdner's (2005) studies revealed that music therapy may aid in decreasing anxiety in patients with dementia is of particular interest to hospice. Hsu and Lai (2004) found that music therapy improved mood and depression, a significant issue for the terminally ill. Patients with dementia, who are becoming a larger portion of hospice patients, present unique issues. Cooke (2000) found that reminiscence music significantly reduced the symptoms of depression in patients with dementia, and staff reported improved mood and interactions. Music therapy is also effective in intervention for agitation and disruptive behaviour in patients with dementia, reducing the difficulty of providing care.

Music therapy has a positive effect on a number of key hospice quality indicators: quality of life, patient satisfaction, and communication.

Ikonomidou (2004) found that just a single music therapy session improves quality of life and patient satisfaction and that these scores increased with the number of sessions. Gallagher's research indicates that music therapy decreases patient isolation, improves patients' interpersonal connections, and enables nonverbal patients to express feelings and connect with others.

## 2. Objectives

In the expert studies there is not present a clear analysis of the costs required to implement music therapy in a hospice, hospital, private practice, school or kindergarten. The issue of costs is very much based on where music therapy sessions take place, the nature of patients' conditions and financial opportunity for customers to opt for this type of therapy, which differ from country to country.

In the USA, music therapy is used in most hospices, day care centres etc. Providing quality care to patients of limited tax is a challenge. Expenses for drugs have high costs and wasting of drugs after a patient dies is another significant cost. Another cost includes wages and transport costs for music therapist, who must travel to patients' homes.

The specialized literature has identified a number of potential savings that can be easily measured: the number and length of visits from home care, use of medications for pain, anxiety, sleep and depression, number and length of visits for medical care, etc. These benefits can be quantified in total cost savings.

In order to highlight the benefits of music therapy, was performed a comparative analysis of patient care costs in the case of music therapy programs and the standard method of treatment in a hospice in San Francisco Bay. (Romo, 2007)

### 3. Material and Methods

Calculation of drug costs cannot be done as easy as that of personnel costs. By using an online cost estimator in the drugs pharmacy of the hospice, there was determined and estimated the cost for the retail price of drugs. The costs of drugs was calculated for each prescription and not for the actual use by the patient.

In the study it was calculated the average daily cost per patient. The cost of a patient per day was calculated by dividing the total cost by the total number of days of participation of patients for each study group.

Further on, the cost elements are presented and analysed, for patients when using music therapy and respectively the application of the standard method of treatment.

Medical care performed by certified nurses for patients receiving music therapy sessions included a smaller number of hours than patients in standard care.

Patients who have received medical care at home and benefited from the music therapy sessions were performed 238.3 hours at a cost of \$3,842, compared with 231.6 hours and a price of \$3,733 for standard care patients. The costs of medicines for patients who have benefited from music therapy was \$1,287 and \$3,702 for patients enrolled in standard care. Total cost of patients enrolled in music therapy was \$10,659 and \$13,643 for standard care patients, resulting in a cost reduction of \$2,984, respectively with 21.9% (table no.1). The average daily cost per patient decreased by 24.4%, from \$12.85 to \$9.71.

|  | Music therapy program |          |                   | Standard care method |          |                   |
|--|-----------------------|----------|-------------------|----------------------|----------|-------------------|
|  | Hours                 | Costs    | Patient costs/day | Hours                | Costs    | Patient costs/day |
| Certified nurses (\$36/hour)                     | 145                   | \$5,220  | \$4.76            | 167.4                | \$6,026  | \$5.67            |
| Licensed vocational education nurses (\$26/hour) | 11.9                  | \$310    | \$0.28            | 7.0                  | \$182    | \$0.17            |
| Home medical care                                | 238.3                 | \$3,842  | \$3.50            | 231.6                | \$3,733  | \$3.52            |
| Drugs  | –                     | \$1,287  | \$1.17            | –                    | \$3,702  | \$3.49            |
| Total  | –                     | \$10,659 | \$9.71            | –                    | \$13,643 | \$12.85           |

Table 1. *Costs on expenses of patient when applying the music therapy method treatment programs and the use of standard care patients in San Francisco Bay hospice.*

The fact that the proportion of reducing the average daily cost per patient is higher than the proportion of total cost reduction, indicating that savings could be even greater in a larger population of patients. These results should be of interest to the Hospices who frequently face patients whose symptoms are difficult to manage. Unintended consequence of reducing costs could help hospices to fight for decrease costs in a time of financial crisis, while maintaining a high level of patient care.

The existing specialized literature deals with the benefits of music therapy applied to treat patients. These are: quality of service, improve patient outcomes, financial savings, improved working conditions for staff.

#### **4. Results and Discussion**

In most developed countries of Europe the music therapist profession is recognized and plays an important role in the evolution of children as well as in treating various diseases. Many of the asylums, hospitals and medical institutions collaborate with music therapists in order to facilitate medical treatments.

Currently, the music therapy has developed in most countries of Europe, such as Austria, Belgium, Bulgaria, Cyprus, France, Italy, Finland, Sweden, Germany, Greece, Norway, Spain, Poland, etc. Some of the most developed countries in terms of the music therapy programs are Norway, the United Kingdom, Switzerland and Germany. In Norway the music therapy has developed lot medical centres, clinics, nursing homes and prisons and its purpose is the social development of the client.

England is renowned for music therapists who founded this practice in the '70s and for the outstanding results achieved by working with children with disabilities or people with mental health problems.

Another important country for music therapy practice is Switzerland. Bases of music therapy were founded in the 80's. Currently, due to intensive use of music therapy, the costs are usually covered in the event of hospitalization in a hospital.

Unfortunately, basic health insurance does not cover the ambulatory music therapy. However, some optional complementary health insurance covers about 80 % of the cost of private music therapy practice.

Because living costs are higher than in neighbouring countries the salaries of the Swiss music therapists are higher. The financial situation of the Swiss music therapists can be compared with its peers from Northern Europe (including Germany, Austria).

For Germany, existing laws do not regulate the music therapists' activity because there are many organizations of music therapy, which made it difficult to clarify the rules regarding the music therapy.

Music therapy applies especially to patients suffering of dementia, in neurological rehabilitation, neonatology, etc. However, in geriatrics music therapy is developing due to the number of elderly people in Germany.

In Romania, music therapy is used in the private system, not existing in the job classification list. At the same time there is no association of Romanian music therapists so that the development of this practice is difficult. The music therapists have the right to practice the music therapy sessions in a cabinet of psychology, in kindergartens, in some treatment centres for children with autism or other diseases, in some special schools, etc.

In Romania, the music therapists training are just at the beginning. Development of such study programs in this area should include topics that provide information about the formation and perception of sounds, types of music that can be used during music therapy, data in order to facilitate recognition and understanding of temperament and personality, so the work should be based on adequate knowledge of music, psychology, medicine or physics. Also, in the training program should be introduced study subjects in order to facilitate both theoretical and practical, or carrying out research and educate future professionals in the spirit of respect the ethical and professional rules.

As regards the legal rights of the music therapists, these are: the right to information and access to information, right to legal assistance and medical care, the right to freedom of exercise of the profession in accordance with professional standards, the right to be rewarded for services rendered, the right to free association, the right to judicial protection and the right to adequate working conditions.

Being a border profession, music therapy covers those ethical issues that relate to the relationship with other members of the medical or psychological team. The values underlying this type of therapy are based not only on developing a working relationship between client and therapist but also between therapists and others involved in supporting customers process. In order carry out his work, a music therapist must know music, medicine, sociology, psychology, to exercise discretion, not to interfere in personal areas that are not within its competence and must respect the cultural and the mentally model of the client, to keep intact his own cultural model.

Also, the person involved in music therapy must be an active person, organized, communicative, and creative, be willing to listen, to observe, to be able to analyze, try to become a mentor to younger people, but also to find a mentor among people who have more experience than him. The costs that can reach a

music therapist in order to equip a music therapy room depend primarily on the customer category to whom it is addressed.

In addition, the use of music therapy in hospitals, hospices and other institutions may lead in time to a closer collaboration with the music therapist in more developed countries in this area, and to a progress at a national level. All these benefits will ultimately lead to the development of the concept of music therapy in Romania and its inclusion in the job.

## 5. Conclusions

Lorenz (2004) reported that using music to procedural support resulted in a reduction of sedatives, a decrease in duration of treatment and a decrease in the number of employees who intervened for patient procedures [9]. However, given that music therapy reduces stress, agitation and improves the condition of patients, staff can state that intervention is more effective and probably requires a smaller number of employees.

Although in Romania the music therapy is not implemented in all cities or in all its possible forms, still exists a development of this profession. Just because it is at the beginning, using music therapy does not have a clearly defined shape or some clear costs. In the private system it is used with success in the form of individual or group sessions.

Their cost differs from one music therapist to another and compared with other forms of therapy, is approaching to them. As it was shown, in group meetings, the costs are lower, while the individual session can cost between 50-100 lei. There are associations that support costs, reducing the costs for users of the music therapy.

However, it is not a form of therapy more expensive than others, and its benefits are countless and of a long term. Extending this profession and its implementation in institutions in Romania could lead to significant economic changes, a greater quality of life. Through the fact that music therapy has grown in other countries and people have a culture in this field and seek to study and promote this profession, it can be concluded that music therapy really has beneficial effects and can be applied very easily and inexpensively large anywhere in the world.

From a socio-economical point of view, music therapy sessions help to promote a cohesive and inclusive society, to increase the educational level of the population and the socio-economic development through a higher education level.

At the same time, music therapy sessions performed in kindergartens or schools offer children equal opportunities, regardless of the parents' financial

situation, the possibility of choosing to start a vocational school (music school) and thus increase the number of students in these institutions.

Another important economic aspect would be the increasing number of students in music schools through the development of a music therapy program. This provides economic continuity for the music faculty in the country whose number of students is steadily dropping.

Also, by increasing the number of students in music schools it is ensured the sustainability of the jobs for teachers in music schools and music faculties. Developing music therapy programs is increasing the number of jobs for qualified individuals that can teach music therapy in kindergartens and schools or other institutions.

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