La musicoterapia per il trattamento del dolore e dell’ansia nel paziente di Triage
Music therapy for the treatment of pain and anxiety in patient of Triage

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Abstract
Introduction: music has proven to be effective in treating pain and anxiety. It has been shown that the conditions of the majority of patients suffering from acute pain worsened while waiting to be attended to in the Accident and Emergency Department. The aim of this work was to verify if music therapy could be used to control the pain and anxiety of patients in the triage area.

Materials and method: in July 2009, a descriptive, observational study was conducted in the Accident and Emergency (A&E) Department of the Umberto I Polyclinic of Rome, which involved 200 patients suffering from pain and triaged with the green-yellow codes. The patients were divided into two groups; the first group of patients was made to listen to classical music for 30 minutes in a protected area, whereas those in the second group were left in the waiting room. All the patients were administered the Visual Analog Scale (V.A.S.) pain rating test and the State-Trait Anxiety Inventory (S.T.A.I.) questionnaire, and their blood pressures and heart rates were measured, before and after the 30-minute period.

Results: the results evidenced in the first group of patients who had listened to music, was an over 80% improvement of the pain symptoms in the V.A.S. scale and 30% reduced anxiety with the S.T.A.I. questionnaire. On the contrary, in the second group, anxiety increased by 30%, and pain, arterial pressure and heart rates by 80%.

Discussion: music therapy has proven to be an effective support in treating pain thresholds and anxiety of patients in the triage area.

Conclusions: new frontiers have opened out for the use of music therapy in the emergency room, for patients triaged with the green-yellow code, aimed at creating an atmosphere that prepares patients for the succeeding medical treatment, and is thus helpful in managing emergency activities.

Key words: Music therapy, Pain, Anxiety, Triage, Self-care.
Introduction

Music has always played an important role in the life of the human being. It keeps us company, alleviates anxiety and sadness, and helps relieve pain, to the point that it is now considered a tool to be used for therapeutic purposes and defined as "music therapy". 

"Music Therapy is the use of music and/or musical elements (sounds, rhythm, melody and harmony) by a music therapist, with a client or group, in a process designed to facilitate and promote communication, relationships, learning, mobilization, expression, organization and other relevant therapeutic objectives to satisfy physical, emotional, mental, social and cognitive needs.

Music Therapy aims to develop potentials and/or restore functions of the individual so that he/she may best achieve intra / interpersonal integration, and consequently a better quality of life, through prevention, rehabilitation or treatment." (World Federation of Music Therapy, 1996).

At clinical levels Music Therapy is applied through two fundamental methodologies:

1. Receptive or passive Music Therapy: listening to pre-composed music, chosen by the patient or programmed by the therapist;

2. Active Music Therapy: the music is composed by the patient with musical instruments or sound and noise emitted by the patient.

Receptive or passive Music Therapy is based on guided music listening, exploits the imagination of the person subjected to the treatment, and makes use of the evocative power of music itself to induce a state of relaxation in the person, in order to encourage him/her to open a communication channel for the therapy.

Each human being's story is important and contains a subjective world of sounds that is unique, and each dimension was defined by R.O. Benenzon as the ISO principle (I for identity, SO = sound). There are different types of options for the choice of the music, but that referred to by the ISO principle is currently the most popular worldwide.

The physiological and psychological effects of music have been studied by Gretry since 1800. About fifty years later, D. Campbell started to study the variations music produced on cardiac rhythms. In 1985, Binet and Courtier tried to measure the variations induced by music on heartbeats and respiratory rates on a sample control group, taken from quite an extensive population, obtaining extremely important data regarding the circulatory and respiratory changes on the basis of the type of music the sample groups listened to.

But recent studies seem to evidence that the most significant factors highlighted among the benefits of music, is the effect it has on the nervous system and on emotive reactions. Scholars generally agree that this has to do with the amygdala which receives the input directly from the thalamus in response to the music.

ARTICOLO ORIGINALE

La musica ha sempre avuto nella storia dell’essere umano un ruolo importante nel fargli compagnia, nel sollevarla dall’ansia, dalla tristezza e nell’alleviare il suo dolore, al punto di poter pensare al suo utilizzo a scopo terapeutico, e quindi a coniugare il termine musicoterapia.

"La Musicoterapia è l’uso della musica e/o degli elementi musicali (suono, ritmo, melodia e armonia) da parte di un musicoterapeuta, con un cliente o un gruppo, in un processo atto a facilitare e favorire la comunicazione, la relazione, l’apprendimento, l’espressione, l’organizzazione e altri rilevanti obiettivi terapeutici al fine di soddisfare le necessità fisiche, emotionali, mentali, sociali e cognitive.

La Musicoterapia mira a sviluppare le funzioni potenziali e/o residue dell’individuo in modo tale che il paziente o la paziente possa meglio realizzare l’integrazione intra e interpersonale e di conseguenza possa migliorare la qualità della vita grazie ad un processo preventivo, riabilitativo o terapeutico." (Definizione del 1996 della Federazione Mondiale della Musicoterapia).

A livello clinico, la Musicoterapia è applicata attraverso due fondamentali metodologie:

1. Musicoterapia ricettiva o passiva: con l’ascolto di musica registrata scelta dal paziente o programmata dal terapeuta;

2. Musicoterapia attiva: la musica è creata dal paziente attraverso strumenti musicali o suoni e rumori emessi dal paziente.

La musicoterapia ricettiva o passiva si basa sull’ascolto musicale guidato e sfrutta la capacità immaginativa e l’impegno emotivo del paziente. In base al tipo di musica che il paziente sceglie, la musicoterapia può aiutare a rilevare e conciliare l’apertura di canali di comunicazione e fine terapeutico.

La storia vitale di ogni essere umano contiene un mondo sonoro percepito dalle proprie capacità e consapevolezza del mondo esterno, ma di conseguenza non rilevante; basta osservare come la mia vita, ricca di stimoli sonori, e quella di molte persone che conosco, salgono o scendono in base alle proprie percezioni e alle proprie valutazioni.
a very fast manner, even before it is processed by the cortex. Research has also pointed to the role of the limbic system which contains a great number of receptors for the endogenous opioids. These discoveries have led to the hypothesis that music can possibly influence a person’s subjective level of the perception of pain. It is important to recognize the interaction that occurs between the physiological and psychological responses to pain. For example, it is a known fact that fear of surgery increases blood pressure and further prolongs the process of the elimination of pain, reducing its threshold. According to the Gate Control Theory, considered today as the most valid explanation of the nature of pain, distraction may modulate pain by closing the gate of the descending cortical paths and inhibiting it at the peripheral ones. Since the Gate Control Theory was announced, together with the discovery of the endogenous opioids, it has become evident that the brain possesses all the necessary tools and mechanisms to cure pain. Music as a practical joint-therapy may act on them like a powerful activator and external amplifier. Pleasant music stimulates the production of endogenous amplifiers and the inhibitory projections descend from these limbic nerve structures. Recent studies have in fact confirmed that music alleviates pain in patients who have been operated in the abdomen, likewise in the elderly with chronic osteoarthritis. Music reduces the assumption of oral analgesics for postoperative pain, improves the conditions of patients at the terminal stage of cancer, and diminishes pain in those with chronic lumbago. Even if the use of music as a joint-therapy plays only a secondary role in treating pain, it is evidently noninvasive nor does it produce undesired effects.

At the same time, it is economic for both patients and healthcare facilities and may be totally customized.

The sounds of music (see the effects on body and mind) reaches the acoustic nerves from outside, and through these reach the thalamus which is extensively connected with the amygdala (the center of emotions). The studies of Zald & Pardo of 2002 demonstrated how the neural circuits involve the amygdala and the hippocampus and are strictly related to anxiety. When people are subjected to potentially dangerous anxiety stimuli like disgusting odors or tastes, the PET scans performed on them show increased blood flow in the amygdala. Suitably chosen music helps the anxious person to control his anxiety level and its correlated symptoms. Music therefore, reveals its therapeutic effect by awakening some “self-healing” mechanisms (increase of immune defenses and pain threshold, coping with strategies, better self-perception and even the fact of distracting oneself makes pain more bearable).

The concept of music in this context, is espoused in a broad manner to include sounds, rhythms, melodies, noise and also silence. At the basis of any type of music therapy activity, lies free, spontaneous expression, with the sole primary objective: to feel better.

### Materials and method

Against a background of hectic triage settings in the Accident and Emergency and Department where a patient is only given a priority code, healthcare operators find it difficult to immediately attend to problems such as the patient’s anxiety and pain. A first survey in the field revealed the main sources of anxiety:

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- Even if the use of music as a joint-therapy plays only a secondary role in treating pain, it is evidently noninvasive nor does it produce undesired effects.

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### Materiali e metodo

Nel contesto frenetico di lavoro esistente nel triage del D.E.A., dove è dato al paziente solo un codice di priorità, è difficile per gli operatori sanitari occuparsi prontamente di problemi quali l’ansia e il dolore del paziente. Da una prima rilevazione sul campo è emerso che le principali...
stress arising from the emergency that led the patient to be brought to the ER, the trauma suffered, the fear of not being attended to by the healthcare operators, the long wait, the lack of know-how for the interventions to be performed, the increasing and prolonged fear of solitude, the sight of other patients in pain, the consequences of the event, the fear of death, etc. These findings, along with the new expertise acquired on the efficacy of music therapy, led to the development of this study conducted in the triage of the A&E Dept. of the Polyclinic Umberto I of Rome in the July 2009 survey period, with the following objectives:

- to verify if music can really have beneficial effects on the anxiety of patients;
- to verify if music can give relief to pain;
- to verify if there are variations on arterial pressure and heart rates.

The final aim was to assess the possibility of introducing classical music within the triage facility, in order to improve the emergency environment, creating a more soothing and relaxed atmosphere. The choice of the triage facility as the site for the study was also due to the fact that the patients were not administered analgesics or pain killers that could have altered the tests. The descriptive, observational study was conducted in the A&E facilities, with the participation of 200 patients experiencing acute pain due to trauma, lumbago, or thoracalgia.

The selection of the sample was opportunistic. The age bracket was between 25 and 75 years, and patients were assigned a green-yellow code. The patients were randomized into two groups of 100: the first sample group was made to listen to classical music for 30 minutes while awaiting triage, whereas the second group was left to wait under normal conditions.

All patients were administered the V.A.S. pain test (analogical visual scale) and the anxiety test (S.T.A.I. - test for anxiety states) measuring the arterial pressure and heartbeat, before and after 30 minutes of listening to music for the experimental group, and before and after 30 minutes of normal waiting for the control group. After 30 minutes, also the “pain relief” parameter was measured with the V.A.S. scale.

At the end of the tasks, some limitations of the study came to light: a fair number of patients had been involved but it would have been useful to perform the test in other similar operating situations so as to allow a comparison of the results. It would have been interesting furthermore, to measure the concentration of plasma endorphins in basic conditions and after music therapy.

It would have also been useful to check the effect of music therapy on other types of pain (e.g. chronic pain, headaches, abdominal pains), to see if it could be extended to all patients with pain, or whether it should be limited to the treatment of some types of pain.

Results

For the analysis of the data of each parameter, the percentage variation (V%) was calculated between the initial pre-test (Ri) results and the final post-test (Rf) results. The formula V% = (Rf - Ri): Ri was used in the calculations. The results of the variations in percentage were considered positive if:

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itive if the patients revealed improvements, negative if their conditions worsened, and stationary at 0 if there were no variations.

The Cartesian graphs show the trend of the variation on axis x and the number of patients on axis y.

1st group: pain test using the V.A.S. rating scale

In the first group, the percentage of the pain test with the V.A.S. showed a general improvement in 90% of the patients and only 10% did not have any benefits and registered a worsening (up to -30%). (Graph 1)

Details show that:
- 5% of patients showed 60% to 90% improvement;
- 17% of patients improved by 40% to 60%;
- 48% of patients improved by 20% to 40%;
- 20% of patients improved by 0% to 20%;
- 10% of patients did not feel any benefits.

2nd group: pain test using the V.A.S. rating scale

In the second group instead, there was a general reverse trend in the experimental group. In fact, 86% of patients generally worsened and only 14% felt beneficial effects. (Graph 2)
In detail, it showed that:
- 3% of patients registered a negative trend of -90% to -60%;
- 5% of patients registered a negative trend of -60% to -40%;
- 16% of patients registered a negative trend of -40% to -20%;
- 62% of patients registered a positive trend of -20% to 0%;
- 14% of patients improved from 0% to 30%.

1st group: anxiety test with S.T.A.I. questionnaire

The anxiety test results were divided according to scores, and the pre-test results were:
- none of the patients scored 20 (No anxiety);
- 9% of patients scored between 20 and 40 (mild-moderate anxiety);
- 65% of patients scored between 40 and 60 (moderate anxiety);
- 26% of patients scored between 60 and 80 (serious anxiety).

The post-test results instead showed:
- None of the patients scored 20 (No anxiety);
- 28% of patients scored from 20 and 40 (mild-moderate anxiety);
- 68% of patients scored from 40 to 60 (moderate anxiety);
- only 4% of patients scored from 60 to 80 (serious anxiety).

The variations that were seen in the pre-tests and post-tests showed a general improvement of 96% of the patients.

(Graph 3)

In detail:
- 12% of patients improved by 30% to 45%;
- 45% of patients improved by 15% to 30%;
- 39% of patients improved by 0% to 15%;
- 4% of patients worsened by 0% to 15%.

2nd group: anxiety test with S.T.A.I. questionnaire

The scores obtained by the control group in the pre-tests were:
- none of the patients scored 20 (No anxiety);
- 20% of patients scored between 20 and 40 (slight to moderate anxiety);
- 45% of patients scored between 40 and 60 (moderate anxiety);
- 39% of patients scored between 60 and 80 (serious anxiety).

Graph 3. S.T.A.I. Variation 1st group

In detail:
- 12% of patients improved by 30% to 45%;
- 45% of patients improved by 15% to 30%;
- 39% of patients improved by 0% to 15%;
- 4% of patients worsened by 0% to 15%.

Nello specifico vediamo che:
- il 3% dei pazienti hanno registrato un andamento in negativo da -90% a -60%;
- il 5% dei pazienti hanno registrato un andamento in negativo da -60% a -40%;
- il 16% dei pazienti hanno registrato un andamento in negativo da -40% a -20%;
- il 62% dei pazienti hanno registrato un andamento in negativo da -20% allo 0%.
- il 14% dei pazienti ha avuto un miglioramento dallo 0% al 30%.

1° gruppo: test per l’ansia con il questionario S.T.A.I.

Nei test per l’ansia i risultati sono stati divisi per punteggi e i risultati del pre-test sono stati:
- Nessun paziente ha avuto un punteggio di 20 (Nessuna ansia);
- Il 9% dei pazienti ha avuto un punteggio tra 20 e 40 (Ansia lieve-moderata);
- Il 65% dei pazienti ha avuto un punteggio tra 40 e 60 (Ansia moderata);
- Il 26% dei pazienti ha avuto un punteggio tra 60 e 80 (Ansia grave).

Nei post-test invece, i risultati sono:
- nessun paziente ha avuto un punteggio di 20 (nessuna ansia);
- il 28% dei pazienti ha avuto un punteggio tra 20 e 40 (ansia lieve-moderata);
- il 68% dei pazienti ha avuto un punteggio tra 40 e 60 (ansia moderata);
- solo il 4% dei pazienti ha avuto un punteggio tra 60 e 80 (ansia grave).

Le variazioni che ci sono state tra i pre-test e i post-test mostrano un miglioramento generale nel 96% dei pazienti. (Grafico 3)

Nel dettaglio:
- il 12% dei pazienti ha avuto miglioramenti dal 30% al 45%;
- il 45% dei pazienti ha avuto miglioramenti dal 15% al 30%;
- il 39% dei pazienti ha avuto miglioramenti dal 0% al 15%;
- il 4% dei pazienti ha avuto un peggioramento dallo 0% al 15%.

2° gruppo: test per l’ansia con il questionario S.T.A.I.

I punteggi ottenuti dal gruppo di controllo nei pre-test per l’ansia sono:
- nessun paziente ha avuto un punteggio di 20 (nessuna ansia);
- il 20% dei pazienti ha avuto un punteggio tra 20 e 40 (ansa lieve-moderata);
- 28% dei pazienti hanno avuto un punteggio tra 20 e 40 (ansa lieve-moderata);
- solo il 4% dei pazienti ha avuto un punteggio tra 60 e 80 (ansa grave).

Grafico 3. Variazione S.T.A.I. 1° gruppo
- 60% of patients scored between 40 and 60 (moderate anxiety);
- 20% of patients scored between 60 and 80 (serious anxiety).

In the post-tests the results were as follow: None of the patients scored 20 (No anxiety)
- 17% of patients scored from 20 to 40 (slight to moderate anxiety);
- 56% of patients scored from 40 to 60 (moderate anxiety);
- 27% of patients scored from 60 to 80 (serious anxiety).

On the other hand, the variation percentages showed a general improvement in 21% of patients and a worsening of 79% of the remaining patients. (Graph 4)

In detail:
- 2% of patients had a positive trend of 15% to 30%;
- 19% patients had a positive trend of 0% to 15%;
- 74% patients had a negative trend of 0% to -15%;
- 5% patients had a positive trend of -15% to -30%.

1st group: measuring the frequency of heart rates

In the pre-test the patients registered a heart rate between 80 and 100 beats per minute. In the post-tests the results showed a reduced frequency of heart rates in 96% of the cases and an increase only in 4% of patients.

In detail:
- in 20% of patients, the frequency of heart rates reduced by 20% to 35%;
- in 40% of patients, the frequency of heart rates reduced by 10% to 20%;
- in 36% of patients, the frequency of heart rates reduced by 0% to 10%;
- in 4% of patients, the frequency of hearts rates increased by 0% to 5%.

2nd group: measuring the frequency of heart rates

Even in this group, the pretest heart rate was between 80 and 100 beats/minute. In the posttest only 4% of patients had reduced frequency of heart rates, whereas the remaining 96% had an increased frequency of heart rates. In detail:

- il 60% dei pazienti ha avuto un punteggio tra 40 e 60 (ansia moderata);
- il 20% dei pazienti ha avuto un punteggio tra 60 e 80 (ansia grave).

Nei post-test i risultati del questionario sono stati:
- nessun paziente ha avuto un punteggio di 20 (nessuna ansia);
- il 17% dei pazienti ha avuto un punteggio tra 20 e 40 (ansia lieve-moderata);
- il 56% dei pazienti ha avuto un punteggio tra 40 e 60 (ansia moderata);
- il 27% dei pazienti ha avuto un punteggio tra 60 e 80 (ansia grave).

Mentre, le percentuali di variazione hanno mostrato un miglioramento generale nel 21% dei pazienti e il restante 79% ha avuto peggioramenti. (Grafico 4)

Nello specifico:
- il 2% dei pazienti ha avuto un andamento positivo dal 15% al 30%;
- il 19% dei pazienti ha avuto un andamento positivo dallo 0% al 15%;
- il 74% ha avuto un andamento negativo dallo 0% al -15%;
- il 5% ha avuto un andamento negativo dal -15% al -30%.

1° gruppo: misurazione della frequenza cardiaca

I pazienti hanno registrato nel pre-test una frequenza cardiaca tra gli 80 e i 100 battiti al minuto. Nel post-test i risultati mostrano una riduzione della frequenza nel 96% dei casi e un aumento solo nel 4%.

Nel dettaglio troviamo che:
- il 20% dei pazienti ha avuto una riduzione della frequenza dal 20% al 35%;
- il 40% dei pazienti ha avuto una riduzione della frequenza dal 10% al 20%;
- il 36% dei pazienti ha avuto una riduzione della frequenza dallo 0% al 10%;
- il 4% dei pazienti ha avuto un aumento della frequenza dallo 0% al 5%.

2° gruppo: misurazione della frequenza cardiaca

Anche in questo gruppo, nel pre-test è stata registrata una frequenza cardiaca tra 80 e 100 battiti/minute. Nel post-test solo il 4% dei pazienti ha avuto una riduzione della frequenza, mentre il restante 96% ha avuto un aumento. Nel dettaglio:
- in 5% of patients, the frequency of heart rates increased by 20% to 30%;
- in 19% of patients, the frequency of heart rates increased by 10% to 20%;
- in 72% of patients, the frequency of heart rates increased by 10% to 0%;
- in 4% of patients, the frequency of heart rates increased by 0% to 15%.

1<sup>st</sup> group: measurement of systolic arterial pressure (P.A. MAX)

A reduced systolic P.A. was evidenced in 54% of patients. (Graph 5)
Specifically:
- in 11% of patients, the P.A. max reduced by 15% to 10%;
- in 43% of patients, the P.A. max reduced by 3% to 10%;
- in 25% of patients, the P.A. max showed no variations (0%);
- in 20% of patients, the P.A. max increased by 4% to 16%.

2<sup>nd</sup> group: measurement of systolic arterial pressure (P.A. MAX)

In the control group, the P.A. max increased in 23% of patients, 73% showed no variations and 4% showed a slight reduction. (Graph 6)
Specifically:
- in 13% of patients, the P.A. max increased by 20% to 10%;
- in 10% of patients, the P.A. max increased by 3% to 10%;
- in 73% of patients; the P.A. max did not vary (0%);
- in 4% of patients, the P.A. max reduced by 0% to 15%.

1st group: relief test with V.A.S. rating scale
This parameter registered alleviated pain in 93% of the patients, whereas only 7% did not find any relief. (Graph 7)
In detail:
- in 11% of patients, pain was alleviated by 60% to 90%;
- in 49% of patients, pain was alleviated by 30% to 60%;
- in 33% of patients, pain was alleviated by 10% to 30%;
- 7% of patients did not find any relief.

2nd group: pain relief test with V.A.S. rating scale
In this group, 72% of patients did not find relief. In the remaining 38%, relief from pain was not higher than 25%. (Graph 8)

Nello specifico:
- il 13% dei pazienti ha avuto un aumento della P.A. max dal 20% al 10%;
- il 10% dei pazienti ha avuto un aumento della P.A. max dal 3% al 10%;
- il 73% dei pazienti non ha avuto variazioni della P.A. max (0%);
- il 4% dei pazienti ha avuto una riduzione della P.A. max dallo 0% al 15%.

1° gruppo: test del sollievo con scala V.A.S.
Per questo parametro si è registrato un sollievo dal dolore nel 93% dei pazienti, mentre solo il 7% non ha avuto sollievo. (Grafico 7)
Nel dettaglio:
- l’11% dei pazienti ha avuto sollievo dal 60% al 90%;
- il 49% dei pazienti ha avuto sollievo dal 30% al 60%;
- il 33% dei pazienti ha avuto sollievo dal 10% al 30%;
- il 7% dei pazienti non ha avuto sollievo.

2° gruppo: test del sollievo con scala V.A.S.
In questo gruppo il 72% dei pazienti non ha avuto sollievo, il restante 38% ha avuto un sollieво non superiore al 25%. (Grafico 8)
Discussion

The results of all the tests performed, demonstrated important benefits in the first group compared to the second control group, which evidenced instead a general worsening of the patients’ conditions. Particularly, the V.A.S. pain test registered an evident improvement of the pain symptoms in the first group of patients, and the opposite occurred in the second group’s situation which worsened considerably. The data for the pain relief V.A.S. test confirmed the results obtained. This data was in line with the Gate Control Theory by which the impact of pleasant music distracted the patients and intervened, modulating the perception of pain. Though not tested, we cannot exclude that it also determined the production of endogenous opioids and an inhibitory action starting from the limbic nervous structures.

Similarly, the S.T.A.I. anxiety questionnaire registered improvements of the anxious state as seen in the pressure and pulse values. On the contrary, in the second group the same parameters registered worsening or no variations. Therefore, music therapy proved to be effective in controlling the anxiety of patients triaged with acute pain.

Conclusions

The evident results showed general improvements in each of the parameters measured. Furthermore, a favorable reaction was received from patients who showed enthusiasm in listening to music.

Signs of discomfort were seen in the control group; the patients seemed to be increasingly in pain as time passed.

The introduction of music therapy in the waiting rooms of the Emergency could thus be of great help to treat anxiety which, as we saw, increased while waiting, in terms of pain, and the perception of which, as we saw, could be reduced. All this was achieved for a minimal cost. The study in fact made use only of an mp3 with headphones and single-use wrapping.

The nurse’s role is to care for the person as a whole, and this also means addressing the interaction between mind and body, and music offers an excellent “gateway” to re-balancing this interplay.

Since music therapy has been found to be as effective as traditional forms of therapy, nursing research should focus on innovative and alternative systems, scientifically tested for efficacy, and which facilitate protection of the patients’ wellbeing.

Nel dettaglio troviamo che:
- il 15% dei pazienti ha avuto un sollievo dal 15% al 25%;
- il 7% dei pazienti ha avuto un sollievo dal 10% al 15%;
- il 6% dei pazienti ha avuto un sollievo dal 3% al 10%;
- il 72% dei pazienti non ha avuto sollievo.

Discussione

I risultati di tutti i test svolti dimostrano importanti benefici nel primo gruppo rispetto al secondo gruppo di controllo, che evidenzia invece evidenti peggioramenti generali dei pazienti. In particolare, nel test per il dolore V.A.S. si è registrato un evidente miglioramento della sintomatologia dolorosa nel primo gruppo di pazienti e, al contrario, un considerevole peggioramento nel secondo gruppo. I dati del test per il sollievo dal dolore V.A.S. confermano i risultati ottenuti. Tali dati sono in linea con la Gate Control Theory per cui la distrazione determinata da una musica piacevole interferisce sulla percezione del dolore rimodulandolo; non è stato testato, ma non è da escludere che essa determini anche la produzione di oppioidi endogeni e un’azione inhibitoria a partire dalle strutture nervose limbiche.

Analogamente sono stati registrati nel primo gruppo miglioramenti dello stato di ansia attraverso questionario dell’ansia S.T.A.I., dei valori della pressione e del polso. Al contrario, nel secondo gruppo sono stati registrati peggioramenti o nessuna variazione degli stessi parametri. Pertanto la musicoterapia si è dimostrata efficace per il controllo dell’ansia dei pazienti di triage con sintomatologia dolorosa acuta.

Conclusioni

Gli evidenti risultati mostrano miglioramenti generali su ogni parametro rilevato. Si è registrata inoltre una favorevole reazione da parte dei pazienti, che si sono dimostrati entusiasti di ascoltare della musica.

Manifestazioni di disagio sono state riscontrate nel gruppo di controllo; i pazienti si mostravano sempre più insoddisfatti, man mano che il tempo trascorreva.

L’introduzione della musicoterapia nella sala di attesa del pronto soccorso, potrebbe quindi diventare un reale aiuto sia per l’ansia che, come abbiamo visto, aumenta nell’attesa, sia per il dolore, di cui è stato dimostrato possibile diminuirne la percezione. Tutto ciò ad un costo minimo. Per lo studio infatti, si è utilizzato solo un mp3 con delle cuffie a involucro monouso.

Il ruolo dell’infermiere è di occuparsi della persona nella sua totalità, ciò significa occuparsi anche dell’interazione tra mente e fisico; in questo la musica può rappresentare un ottimo “chia- ve di accesso” per riequilibrare questa interazione.

La ricerca infermieristica deve puntare sempre la sua attenzione su sistemi innovativi ed alternativi a quelli tradizionali, di efficacia provata e testata in modo scientifico, che possano facilitare la tutela del benessere del paziente.

References - Bibliografia