

## LETTER TO THE EDITOR

### The benefits of music therapy in critical patients ☆



### Beneficios de la musicoterapia en pacientes críticos

The content of this study is original and has not previously been published nor sent or submitted for consideration to any other publication, either in complete format or in any of its parts.

This study has not been presented at any congress or workshop.

According to the World Music Therapy Federation, music therapy consists in the use of music and its elements for the purpose of satisfying emotional, physical, cognitive and mental needs.

In the study by Gullick et al.<sup>1</sup> conducted in 2015 in Australia, the effect of music therapy was assessed in 373 patients on mechanical ventilation in five intensive care units (ICU). This was a blinded, randomised, controlled study. The method consisted in selecting music according to patient preferences, after a music therapist created a musical list, and then encouraging the participants to listen to it twice a day. The active control group were encouraged to use noise cancelling headphones. The third group formed by receptors of regular attention did not receive music therapy or headphones. Mean duration was 5.7 days. The music therapy group listened to music for an average of 79.8 min per day and the group with noise cancelling headphones for an average of 34 min per day. Results suggested that directed music therapy and noise cancelling headphones can be useful, cost-effective, and lead to an improvement in anxiety and exposure to sedation.

In the study conducted by Umbrello et al.<sup>2</sup> in 2019 in Italy, the effectiveness of music therapy in reducing stress and anxiety in critically ill adults patients was assessed through a systematic clinical trial review. The music therapy was provided as a single 30-minute intervention, although this could range between 15 and 60 min per day. The control groups were standard care, relaxation, headphones without

music or noise cancellation. The music therapy determined a reduction in anxiety and stress, according to that assessed by self-reported scales and physiological parameters.

In the study conducted by Johnson et al.<sup>3</sup> in 2018 in United States the effects of music therapy were assessed for the prevention of delirium among patients admitted to the trauma ICU. This was a randomised, controlled trial and the method consisted in providing music through headphones, with a slow beat, low tone and simple repetitive rhythms for 60 min twice a day. Results suggested significant differences in heart rate and systolic blood pressure before and after listening to music. All participants tested negative for delirium. Music therefore addresses the physiopathological mechanisms that contribute to delirium and serves to prevent it within the ICU environment.

In the study by Fallek et al.<sup>4</sup> conducted in 2019 in the United States, the effect of music therapy was assessed on anxiety, pain, pulse and respiratory rate in 150 ICU patients. The method was to apply music therapy for 6 months once a day. A pre-post design was used of mixed methods to assess clinical markers and intervention viability. Results showed a reduction in anxiety and pain after each session. This study found that the introduction of music therapy beside the bed in severely ill patients was viable and effective.

In the study by Golino et al.<sup>5</sup> conducted in 2019, the effect of active music therapy in ICU patients was examined. A single pre-post test group of 52 patients was created. Participants received a 30-minutes music therapy session with relaxing music or with songs chosen by the patient. The music therapist recorded vital signs before and after the intervention and the patients completed self-assessment reports on pain and anxiety. After the intervention significant reductions in respiratory rate, heart rate, self-reported pain and anxiety were found. No oxygen saturations changes were observed. The results uphold that active music therapy is a useful non pharmacological intervention without any side effects in ICU patients.

Due to the results from the studies in recent years and bearing in mind that after being assessed by the Spanish CASP (Critical Appraisal Skills Programme) they were found to be high quality with internal and external validity, it may be suggested that music therapy should be promoted by healthcare professionals. To improve patients' quality of life this technique could be included in the ICU's everyday practice as a proven safe and effective tool for these patients. Furthermore it is a simple, cheap method and major clinical benefits can be obtained from its use.

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The inclusion of this strategy in critical care will help to improve the medical situation of patients and offer them better care based on the latest scientific evidence. According to the research studies conducted up until now, the method could be used with ear buds or headphones twice a day in sessions lasting from 30 to 60 min with consideration of patient preferences and with a slow beat, low tone and simple repetitive rhythms. Research could also be enhanced within this area to determine what type of music offers the most benefits, together with duration, intensity of sound, tone, most appropriate time for listening and synergic interaction with other non pharmacological interventions.

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## Conflict of interests

None.

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