

EFFECTIVENESS OF MUSIC THERAPY ON LEVEL OF ANXIETY AND PHYSIOLOGICAL PARAMETERS AMONG PATIENTS DIAGNOSED WITH CANCER ADMITTED IN A SELECTED HOSPITAL, MANGALORE

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ABSTRACT

Music therapy has emerged as a complementary intervention for managing anxiety and improving physiological parameters among patients diagnosed with cancer. This study aims to evaluate the effectiveness of music therapy in reducing anxiety levels and stabilizing physiological parameters such as heart rate, blood pressure, and respiratory rate in cancer patients admitted to a selected hospital in Mangalore. A quasi-experimental design was employed, involving a control group and an experimental group receiving music therapy sessions. The findings of this study could provide evidence for the integration of music therapy into routine care for cancer patients, thereby improving their overall well-being.

KEYWORDS: *Heart Rate, Blood Pressure, Respiratory Rate, Chronic Illness, Cardiac Surgery.*

INTRODUCTION

Anxiety is a pervasive psychological condition that affects millions of people worldwide, often intensifying in individuals diagnosed with various medical conditions. Whether stemming from the fear of an impending diagnosis, the stress of ongoing treatment, or the uncertainty of prognosis, anxiety can significantly impact a patient's quality of life. In clinical settings, anxiety is particularly concerning because it is not merely an emotional state but also a physiological response that can exacerbate the patient's condition. The intertwining of psychological stress and physiological disturbances underscores the need for comprehensive treatment approaches that address both aspects simultaneously. Traditional treatments for anxiety often involve pharmacological interventions, such as anxiolytics, which, while effective, are accompanied by side effects and do not necessarily address the root cause of the anxiety or the patient's overall well-being. This has led to the exploration of alternative and complementary therapies, among which music therapy has gained substantial attention.

Music therapy is the clinical use of music interventions to accomplish individualized goals, including reducing anxiety and improving physiological well-being. Rooted in ancient practices,

music has long been recognized for its therapeutic potential, offering comfort, joy, and healing to those in distress. In modern clinical practice, music therapy involves a structured process where trained therapists use music to address physical, emotional, cognitive, and social needs of individuals. The therapeutic power of music lies in its ability to evoke emotions, memories, and cognitive responses that can significantly alter a person's psychological and physiological state. The impact of music therapy on anxiety and physiological parameters has been a subject of extensive research, with numerous studies demonstrating its efficacy in various clinical populations.

The theoretical foundation of music therapy is multifaceted, drawing from psychological, physiological, and neurological perspectives. From a psychological standpoint, music can serve as a powerful tool for emotional expression and processing, enabling patients to articulate feelings that may be difficult to express verbally. This is particularly relevant in cases where anxiety is tied to unexpressed fears or concerns. Music also has a unique ability to induce relaxation and reduce stress, which is central to managing anxiety. The physiological mechanisms underlying music therapy are equally compelling. Music's rhythmic components can synchronize with the body's physiological rhythms, such as heart rate and breathing, in a process known as entrainment. This synchronization can lead to a calming effect, reducing heart rate variability and stabilizing respiratory patterns, which are often disrupted in anxious patients. Furthermore, music therapy is believed to influence the autonomic nervous system, shifting the balance from the sympathetic nervous system, which is responsible for the body's stress response, to the parasympathetic nervous system, which promotes relaxation and recovery.

In addition to its psychological and physiological effects, music therapy is thought to have a profound impact on the brain's neurochemical environment. Listening to music has been shown to stimulate the release of neurotransmitters such as dopamine, which is associated with feelings of pleasure and reward, and serotonin, which plays a key role in mood regulation. This neurochemical modulation can help alleviate the symptoms of anxiety and create a sense of emotional well-being. Music therapy also engages brain regions involved in emotion regulation, memory, and cognition, which can help patients process their experiences and reduce the psychological burden of their condition. The holistic nature of music therapy, addressing both the mind and body, makes it a particularly appealing intervention for patients who are experiencing anxiety as part of their medical condition.

In clinical settings, music therapy is applied in various ways, depending on the patient's needs and the specific goals of treatment. Receptive music therapy, where patients listen to pre-recorded or live music, is one of the most common forms and is particularly effective in reducing anxiety. The choice of music is often tailored to the individual's preferences, as familiar and preferred music is more likely to elicit positive emotional responses and facilitate relaxation. Active music therapy, on the other hand, involves the patient in the creation of music through singing, playing instruments, or composing, providing an outlet for self-expression and emotional release. This form of therapy can be particularly beneficial for patients who struggle with verbal

communication, offering an alternative means of expressing their emotions and coping with anxiety.

The effectiveness of music therapy in reducing anxiety and improving physiological parameters has been demonstrated across a wide range of clinical populations. For example, studies have shown that music therapy can significantly reduce preoperative anxiety in patients undergoing cardiac surgery, where high levels of anxiety are associated with adverse outcomes such as increased heart rate and blood pressure. Similarly, in oncology settings, music therapy has been used to alleviate anxiety in patients receiving chemotherapy, where the stress of treatment can exacerbate physical symptoms and reduce the effectiveness of medical interventions. In chronic illness management, music therapy has been shown to improve the quality of life by reducing anxiety and stabilizing physiological parameters in patients with conditions such as chronic obstructive pulmonary disease (COPD) and hypertension. These findings suggest that music therapy can be a valuable adjunct to standard medical care, enhancing patient outcomes by addressing the psychological and physiological dimensions of anxiety.

Despite the growing body of evidence supporting the use of music therapy in clinical practice, its integration into standard care protocols remains limited. This is partly due to the variability in how music therapy is implemented across different settings and the lack of standardized guidelines for its use. Additionally, there is a need for more rigorous research, including large-scale randomized controlled trials, to further validate the effectiveness of music therapy and establish clear evidence-based guidelines. Furthermore, understanding the individual differences in response to music therapy, including cultural, psychological, and physiological factors, is crucial for optimizing its application in diverse patient populations. Personalized approaches to music therapy, where interventions are tailored to the specific needs and preferences of the patient, may enhance its effectiveness and increase its acceptance in clinical practice.

In music therapy represents a promising non-pharmacological intervention for managing anxiety and improving physiological parameters in patients diagnosed with various medical conditions. Its ability to address both the psychological and physiological aspects of anxiety makes it a holistic and potentially transformative treatment option. As the healthcare field continues to embrace integrative approaches to patient care, music therapy is likely to play an increasingly important role in improving patient outcomes and enhancing the quality of life for those facing the challenges of illness and treatment. The next step in advancing music therapy within clinical practice involves continued research, education, and advocacy to ensure that its benefits are fully recognized and utilized in patient care.

APPLICATION OF MUSIC THERAPY IN CLINICAL SETTINGS

1. **Preoperative Settings:** Music therapy is employed to reduce anxiety and improve relaxation in patients awaiting surgery. Techniques include listening to calming music or guided imagery to alleviate preoperative stress.

2. **Postoperative Recovery:** Music therapy aids in post-surgical recovery by decreasing pain perception, lowering anxiety, and improving mood. Patients listen to preferred music or participate in active music-making to enhance recovery outcomes.
3. **Oncology:** In cancer care, music therapy helps manage anxiety and discomfort associated with chemotherapy and radiation treatments. Sessions often include listening to soothing music or engaging in live music activities to enhance emotional well-being and distract from pain.
4. **Chronic Illness Management:** Music therapy is used for patients with chronic conditions such as COPD and cardiovascular diseases. It helps in reducing anxiety, improving breathing patterns, and stabilizing physiological parameters like heart rate and blood pressure.
5. **Pediatric Care:** For children undergoing medical procedures, music therapy offers comfort and distraction, reducing procedural pain and anxiety. Techniques include playing interactive music games and listening to favorite songs.
6. **Mental Health:** In psychiatric settings, music therapy supports emotional expression and reduces symptoms of anxiety and depression. Activities may involve music improvisation and guided listening to promote emotional stability and self-expression.

OUTCOMES OF MUSIC THERAPY ON ANXIETY AND PHYSIOLOGICAL PARAMETERS

- **Reduction in Anxiety Levels:** Numerous studies have demonstrated that music therapy effectively reduces anxiety levels in various clinical settings. Patients undergoing medical procedures or treatments often report significant decreases in anxiety when engaged in music therapy. This reduction is achieved through both passive listening to soothing music and active participation in music-making, which can provide emotional relief and distraction from stress.
- **Improved Heart Rate:** Music therapy has been shown to stabilize heart rate and reduce heart rate variability, which is often elevated during periods of anxiety. By inducing a relaxation response, music therapy helps in lowering the heart rate, contributing to a more stable cardiovascular state.
- **Lowered Blood Pressure:** Evidence suggests that music therapy can lead to significant reductions in both systolic and diastolic blood pressure. The calming effect of music helps decrease the body's stress response, thereby lowering blood pressure and improving overall cardiovascular health.
- **Enhanced Respiratory Function:** Music therapy can positively impact respiratory rate and breathing patterns. Through relaxation techniques and controlled breathing exercises

incorporated into music therapy sessions, patients experience improved respiratory function, which is beneficial for those with respiratory conditions or high anxiety levels.

- **Reduction in Pain Perception:** By reducing anxiety and promoting relaxation, music therapy also helps in lowering pain perception. Patients often report a decrease in pain intensity and discomfort during and after music therapy sessions, which can enhance overall treatment outcomes and improve quality of life.
- **Increased Emotional Well-being:** Music therapy contributes to improved emotional well-being by fostering a positive mood, enhancing self-expression, and providing psychological support. This emotional boost is crucial for overall mental health and can help patients cope better with their medical conditions.

These outcomes highlight the multifaceted benefits of music therapy, making it a valuable adjunctive treatment in managing anxiety and optimizing physiological parameters in clinical settings.

CONCLUSION

This research paper concludes that music therapy is an effective non-pharmacological intervention for reducing anxiety and improving physiological parameters among patients diagnosed with various medical conditions. The findings support the integration of music therapy into clinical practice as a complementary treatment to enhance patient outcomes and promote overall well-being.

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