

Research Paper

Comparison of the Effect of Music Therapy and Writing Therapy on the Anxiety and Depression of Students with Cancer

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Abstract

Introduction: Depression and anxiety have a negative effect on cancer, so its evaluation and treatment are important in these patients. The aim of this study was to compare the effectiveness of two music-based therapies and to write down the levels of anxiety and depression in students with cancer.

Methods: The present semi-experimental study was a pretest and posttest with a control group. The statistical population consisted of all students aged 14-8 years with cancer in the first six months of 2019 who were hospitalized in Bandar Abbas Children's Hospital; A total of 45 subjects were randomly selected and randomly assigned to two test groups and a control group (15 subjects each). All subjects were tested before and after treatment with the Spence Anxiety Test and the Barlson Depression. The experimental groups underwent music therapy and writing therapy, but the control group did not receive any intervention. The data were analyzed by statistical tests.

Results: The results showed that music therapy and writing therapy had an effect on depression and anxiety in students with cancer, and there was no significant difference between the effectiveness of the two treatments ($P < 0.001$).

Conclusions: Based on the results of the research, music therapy and writing therapy can be used as a complementary, non-pharmacological treatment and effective methods to reduce anxiety and depression in students with cancer.

Extended Abstract

OBJECTIVE

One of the diseases that can be considered a serious threat to the survival and physical and mental health of children is cancer (1). Cancer is one of the most important health problems in Iran and around the world, and is the third leading cause of death and the second largest group of chronic and non-communicable diseases (3). Cancers are a disease characterized by uncontrolled cell growth and invasion of systemic localized tissues (4). And according to a study conducted in the Iranian population, the death rate from cancer is estimated to be about 4% in children fewer than 5 years of age and about 13% in children aged

5 to 15 years (7). The process of diagnosis, treatment, and complications of the disease necessitates hospitalization of the child for long periods of time, which is an unpleasant, irritating, and frightening experience, and puts children under stress. In addition, repeated hospitalizations separate children from family, school, and the social environment, creating depression, anxiety, stress, and feelings of helplessness (8). Therefore, the study of depression and anxiety is an important variable in the field of cancer that needs to be considered in the psychosocial care of these children in the treatment process (14). On the other hand, cancer

and its treatment have various dimensions, so in addition to clinical issues, it is necessary to pay attention to complementary and non-pharmacological treatments (15). In this regard, non-pharmacological treatments have attracted the attention of various patients and are used as a supplement in acute cases along with drug therapies as complementary therapies. Used, these therapies include music therapy and writing therapy, etc., due to the ease of the correct way to write and do it automatically without face-to-face visits, as well as the less intervention of the therapist in the treatment process and its easy implementation in the short term. Other treatment methods that require long face-to-face and continuous sessions are differentiated (32). Therefore, the use of two non-pharmacological treatments and the comparison of these three methods in terms of affecting anxiety and depression in cancer patients is an innovative aspect of the present study and although the effectiveness of any of the treatment methods offered to the cancer community is limited; Therefore, due to the lack of research gap in this field, the aim of this study was to compare the effect of music therapy and writing therapy on anxiety and depression in students with cancer.

Table 1.

Variable	Pre-Test		After Test		Post-Test Comparison		
	M	SD	M	SD	F	P	Effect Size
Anxiety					15.657	0.001	0.439
Control	64.4	16.4	63.8	16			
Music therapy	59.01	16.7	36.3	13.2			
Writing therapy	52.93	22.62	33	10.8			
Depression					35.390	0.001	0.639
Control	44.8	4.2	44.2	3.8			
Music therapy	48.4	3.9	42	6.7			
Writing therapy	47.2	3.5	44.7	4.1			

CONCLUSION

Based on the results of the research, music therapy and writing therapy can be used as a complementary, non-pharmacological treatment and effective methods to reduce anxiety and depression in students with cancer.

Ethical Considerations

The authors state that all relevant ethical principles have been observed in this study, including the confidentiality of the questionnaires, the informed consent of the participants in the research, and the authority to withdraw from the research. In addition, this article is taken from the doctoral dissertation of Psychology, Islamic Azad University, Zahedan Branch, with the number 5/7773 dated 08/10/2018. And it has been approved by the ethics committee of Bandar Abbas University of Sciences under the code Ir.HUMS.REC.1398.255

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This research was conducted without any financial support.

Authors Contribution

MATERIALS AND METHODS

The present semi-experimental study was a pretest and posttest with a control group. The statistical population consisted of all students aged 8-14 years with cancer in the first six months of 2019 who were hospitalized in Bandar Abbas Children's Hospital; A total of 45 subjects were randomly selected and randomly assigned to two test groups and a control group (15 subjects each). All subjects were tested before and after treatment with the Spence Anxiety Test and the Barlson Depression. The experimental groups underwent music therapy and writing therapy, but the control group did not receive any intervention. The data were analyzed by statistical tests.

RESULTS

The results showed that music therapy and writing therapy had an effect on depression and anxiety in students with cancer, and there was no significant difference between the effectiveness of the two treatments ($P < 0.001$).

Ms. Parisa Naseri was in charge of the initial writing and preparation of the initial draft of the article. Dr. Gholamreza Sanagavi was in charge of statistical analysis. Dr. Mahmoud Shirazi has submitted, followed and reviewed the article.

Conflict of Interest

The authors state that there is no conflict of interest between the authors in this study.

Applicable Remarks

Based on the results of the present study, the use of music-based therapy and writing can be used as a means to relieve anxiety and depression in patients with cancer, so its use in the agenda of medical centers, hospitals, Health services, counseling and psychotherapy and families should be considered and gender and cultural differences should also be considered.

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