

The Implication of Music Therapy on the Anxiety of Patients Undergoing Day Surgery with Non-General Anaesthesia

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Abstract

Purpose: To investigate the implication of music therapy on the anxiety of patients undergoing day-surgery with non-general anesthesia.

Methods: 90 patients ranging from October 2016 to November 2016 in Changzheng Hospital were enrolled in our study. They were classified into two groups with each having 45 cases. One received music therapy perioperatively, while the other did not. Analysis was made to evaluate the anxiety difference between two groups.

Key Words: Music therapy, Day-surgery, Non-general anaesthesia, Anxiety.

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Results: The anxiety degree of the control group was inferior to the test group, according to the ST-AI condition.

Conclusion: During the whole procedure, patients suffered from different anxiety degree, and attained nervousness relief through music therapy, then they could make better cooperation with doctors, relieving postoperative pain. Therefore, music therapy deserves to be recommended in the clinical nursing practice.

Introduction

In countries like America and Canada, the amount of day-surgery accounts for 90% of the total number, and in European countries the percentage also reaches over 80% [1]. In 2003, The International Association surgery (IAAS) defined day-surgery as the following: surgery is conducted on the day of admission, and patients are discharged on the same day, except the minor surgeries in the outpatient way or clinics [2]. Recent years has witnessed the growing attention on day-surgery, which aims at cutting down the time in hospital and decrease the medical cost. Higher demands are posed on both hospital and medical employees in order to promise the same effects for patients receiving day-surgeries with those in hospital. Actually we find the fast and frequent process is a kind of severe mental stimulation, such as nervousness, fear, anxiety, etc, which affects the surgical process and the outcomes with a great extent [3], especially the anxious emotion caused by consciousness during the operation. Music therapy was established as a subject since 1944 in Michigan University, and has developed as a mature integrated subject [4]. Previous research has showed that listening to music could change the physical and psychological status, help produce positive reactions, coordinate our physical activities, eliminate the nervousness, relieve the negative emotions, such as agitation and anxiety [5]. We chose the proper patients undergoing non-general anesthesia and observe the changes of their anxiety and depression.

Materials and methods

Basic data

90 patients receiving non-general anesthesia were enrolled into the study from October to November in 2016. The patients were divided into observational and control groups randomly. The age ranged from 16 to 77 years old. The methods of anesthesia included 39 local, 45 lumbar and 6 brachial plexus anesthesia. No statistical significance was found in basic data between two groups.

Methods

Control group: patients received regular preoperative education. Through fast and effective communication, the doctor and nurse

introduced the treatments and the attentions during the operation, in order to make patients feel safe and believe in the medical workers.

Observational group: during waiting the operation room, besides the measures above, special music were played according to the psychology professor's advice and personal tastes throughout the whole surgical procedure.

Evaluation standard

We investigated the anxiety degree via ST-AT questionnaire. S-AT is a scale for condition, and T-AI is a scale for anxiety.

Statistics

All statistics were performed using SPSS 13.0, quantitative data was recorded using mean and standard deviation, t test or variance analysis was adopted to judge the difference. Enumeration data was tested using χ^2 test. $p < 0.05$ was considered statistically significant.

Results

Before the operation, no statistical significance was found in T-AT between groups (32.26 ± 5.23 vs. 40.91 ± 8.61). while the S-AT in observational group is obviously inferior to that in control group with $p < 0.05$ (40.06 ± 3.14 vs. 41.22 ± 6.36).

After the surgery, statistical significance was also found in T-AI between groups (38.46 ± 7.42 vs. 42.63 ± 7.91).

Discussion

Causes of day-surgery related anxiety: Clinical studies show that the patients all have anxiety to a different extent and reach the peak at the 15-30 min before anesthesia or the morning of surgery [4]. Day-surgery is a newly developed medical model for which there is still no standard definition. According to the available studies and practice, it is generally recognized that day-surgery is the whole process of admission, receiving surgery and discharge [6]. Surgery is actually a strong stimulus for patients, usually resulting in adverse effects such as fear and anxiety [7]. Through negotiation, patients are usually lack of the recognition of surgery, and worry about the post-operative

pain, complications and prognosis due to the short time of hospital stay. Music therapy is kind of natural customized treatment to help the patients reach the balance of physic and emotion, via providing the individual music types [8].

The importance of preoperative music therapy is to relieve the nervousness, with the relevant study [9] demonstrating that harmonious music can enable the patients to keep the stable respiratory frequency, heart rate and blood pressure. It also helps to distract one's attention and the doses of the analgesic and tranquilizer. There are also studies [10] reporting playing music before the operation had gained best outcomes, better than that during the procedure and after the surgery. And the effect could get better if we communicated and educated the patients including the rules and the security systems in cases of complications. Music therapy increases the cooperation between patients and doctors, playing music during the process can regulate the function of brain limbic system and reticular structures. The pleasant rhythm can improve the mental health and distract attention, making patients relax by relieving nervousness and anxiety [11]. With the rapid development of our medical area, a number of newly-developed nursing methods has been applied in the clinical practice. Music therapy, as one of them, is good to relieve the nervous emotion, decrease the anxiety and improve the mental condition. The music rhythm with certain frequencies can better coordinate the different organs to produce the pleasant sensation, to relax the nerve movement, and promote the excitability of the cerebral cortex. It also activates the subcortical autonomic nerves to sustain the emotion, eliminate nervousness, cooperate the different systems, decrease the mental pressure and keep energetic and focussed. Besides, the doctors and nurses can also enjoy the pleasant music [12]. Therefore, music therapy deserves to be recommended in the day-surgeries.

References

1. Song jin Huang Ruchun. Several considerations for the construction and operation management of hospital daytime operating room[] **Day Surgery Room Construction** 2016; 07.
2. Yu Deliang Ning Pengtao, Wang Juan Liu Xiaonan Thoughts on the definition of day surgery and the first recommended surgery for surgery []2015,12;539
3. Xie Mingliang Therapeutic effect of music therapy on anxiety and depression in surgical patients [] **Chinese Medicine Guide** 2014;12(11)234-235.
4. 4Xu Jingying Li Chen Research on the psychotherapy of music [M] **Art Science and Technology**.
5. Gao Qingqin Chen Lihong Xie Yunfei Application of relaxing music in quality nursing services in primary hospitals [] **Chinese Medicine Frontier** 2012;01(7);67.
6. Deng Lingling Application of Music Nursing in Outpatient Operating Room [] **Nursing Research** 2012;12;(34).
7. Jiang Shengqiu Xu Liyu Huang Feixiang Several problems that need to be clarified in the development of day surgery in China [] **Medicine and Society** 2015;11(28);5.
8. Su Jinhua Exploring the effect of preoperative visit on anxiety in patients undergoing elective surgery [] **Clinical Nursing** 2016;11;(21).
9. Jiang Jieshan Feng Liuming Deng Yingfeng Zheng Jiejun Clinical nursing observation of background music therapy in operating room nursing[] **Inner Mongolia Traditional Chinese Medicine** 2015;06;178.
10. Wang Jin Lian Guijun The role of music in operating room nursing [] **Chinese Medicine Emergency** 2006;10(15);1180.
11. Public Medicine [M] **Scientific Life** 77.
12. Dong Shuqin, Zu Yan, Zhang Jianfeng, Wang Shuang. Application of light music intervention in artificial femoral head prosthesis replacement [] **Today Nurse** 2009;10(10);46.