

The effectiveness of music as a nursing intervention on depression in adult people of dialysis

A guidebook for nursing student

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Abstract

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Title of publication: The effectiveness of music as a nursing intervention on depression in adult people of dialysis. A guidebook for nursing student		
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<p>Abstract:</p> <p>Depression is becoming an increasingly serious mental health problem in the world. According to the World Health Organization (who), depression affects more than 300 million people worldwide in 2015, accounting for about 4.4% of the world's total population. Depression causes a huge loss of human health, which is 7.5% of the total number of disabled people. On the other hand, depression is also the main cause of suicide death. Nearly 800000 people die of depression every year. (World Health Organization 2017, 5)</p> <p>Depression is also the most important complication of dialysis patients in mental illness. The occurrence of depression increases the difficulty of treatment and nursing of dialysis patients, reduces the quality of life of patients and leads to the increase of mortality of dialysis patients. According to statistics, 42.7% of dialysis patients have different degrees of depression. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)</p> <p>Music therapy is a non-invasive intervention therapy, which can be easily accepted by patients to alleviate psychological problems and help patients cope with their psychological status. Music therapy has been proved to be an effective way to treat patients with depression. Effective music intervention can improve the quality of life of dialysis patients and guide nurses in the treatment of depression.</p> <p>This guide book is used for the work and study of nurses (HD), music therapists, doctors, health nurses, nursing students and basic research materials. It can also be used to wish to develop additional research guidelines. This is a functional framework thesis, which is based on our theoretical findings and the principles of the medical education guide. This thesis is clear, informative, practical and easy to understand. It is applicable to clinical practical guidelines.</p>		
Keywords 1. Music intervention 2. Depression 3. Dialysis		

Tiivistelmä

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Julkaisun otsikko Musiikin tehokkuus hoitotyönä masennukseen aikuisilla dialyysipotilailla. Opas sairaanhoitajaopiskelijoille		
Tutkinto Sosiaali- ja terveysalan ammattikorkeakoulututkinto		
Abstrakti: <p>Masennuksesta on tulossa yhä vakavampi mielenterveysongelma maailmassa. Maailman terveysjärjestön (kuka) mukaan masennus kärsii yli 300 miljoonasta ihmisestä ympäri maailmaa vuonna 2015, mikä vastaa noin 4,4% maailman väestöstä. Masennus aiheuttaa valtavan menetyksen ihmisten terveydelle, joka on 7,5% vammaisten kokonaismäärästä. Toisaalta masennus on myös tärkein itsemurhakuoleman syy. Melkein 800000 ihmistä kuolee masennukseen vuosittain. (World Health Organization 2017, 5)</p> <p>Masennus on myös tärkein komplikaatio dialyysipotilaille mielisairauksissa. Masennuksen esiintyminen lisää dialyysipotilaiden hoidon ja hoitotyön vaikeuksia, heikentää potilaiden elämänlaatua ja johtaa dialyysipotilaiden kuolleisuuden lisääntymiseen. Tilastojen mukaan 42,7%: lla dialyysipotilaista on erilainen masennus. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)</p> <p>Musiikkiterapia on ei-invasiivinen interventiohoito, jonka potilaat voivat helposti hyväksyä lievittääkseen psykologisia ongelmia ja auttaakseen potilaita selviytymään psyko-loogisesta asemastaan. Musiikkiterapian on osoitettu olevan tehokas tapa masennuspotilaiden hoidossa. Tehokas musiikkitoimenpide voi parantaa dialyysipotilaiden elämänlaatua ja ohjata sairaanhoitajia masennuksen hoidossa.</p> <p>Tätä opaskirjaa käytetään sairaanhoitajien (HD), musiikkiterapeutien, lääkäreiden, terveydenhoitajien, sairaanhoitajaopiskelijoiden työhön ja opiskeluun sekä perustutkimusmateriaaliin. Sitä voidaan käyttää myös haluttaessa kehittää lisätutkimusohjeita. Tämä on toiminnallinen kehätö, joka perustuu teoreettisiin havaintoihimme ja lääketieteen oppaan periaatteisiin. Tämä opinnäytetyö on selkeä, informatiivinen, käytännöllinen ja helppo ymmärtää. Sitä voidaan soveltaa klinisiin käytännön ohjeisiin.</p>		
Avainsanat 1. Musiikin interventio 2. masennus 3. Dialyysi		

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1. INTRODUCTION

Graham is a chemist who worked at the University of Glasgow. He first described dialysis theory in 1854, which laid the foundation for modern hemodialysis. In 1924, Dr. Haas carried out the world's first human hemodialysis at Giessen University in Germany. The world's first dialyzer was created by Willem Kolff, a Dutch doctor. In the fall of 1945, Kolff successfully treated a 67 year old patient admitted to hospital for acute renal failure using his rotating drum kidney. The machine was then modified to be known as the Kolff bright artificial kidney. In 1960, Quinton and Scribner's arteriovenous anastomosis was developed, which opened a new stage of hemodialysis. (The history of dialysis 2019)

A variety of chronic diseases, such as diabetes, hypertension, hereditary diseases, such as polycystic kidney disease, can lead to slow and irreversible renal function loss, and finally lead to complete renal function loss, which requires renal replacement therapy. Artificial blood purification is one of renal replacement therapy. (Glomerular Diseases 2014)

Hemodialysis treatment will have a significant impact on the daily life of patients, resulting in a large number of economic losses and physical activity constraints, resulting in human biological, psychological and social changes. All these changes and the limitations of the disease will have a huge impact on the patient's lifestyle and quality of life. (Marta, Grażyna, Wioletta , Magdalena, and Anna 2018).

For dialysis patients, quality of life can be understood as personal satisfaction with important areas of life. Some hemodialysis patients related complications such as hypotension, hypertension, arrhythmia, spasm, convulsion and dialysis imbalance syndrome may occur during dialysis. These will affect the daily life of patients, which will have a negative impact on the quality of life, increase mental stress, and lead to depression. Depression can change patients' cognition and evaluation of life and disease, and the negative evaluation of their own diseases is mainly related to anxiety and depression, which leads to patients' failure to adhere to treatment. Therefore, it is of positive significance to evaluate the quality of life and depressive state of hemodialysis patients and conduct music therapy intervention to reduce the negative emotions of patients and improve the quality of life. (Paula, Luis & Carmen 2018)

Research shows that music has a therapeutic effect on the physical and mental health of hemodialysis patients. Music therapy as an intervention can improve the quality of life in patients with hemodialysis. A study in Korea has confirmed the role of music therapy in reducing anxiety and depression symptoms. A study and analysis published in 2018 found

that music intervention can effectively reduce anxiety symptoms in patients with hemodialysis. Listening to their favourite music can be making the body and mind relaxed and happy, so it can play a therapeutic role. Although all music related activities may have therapeutic effects, only music therapy as a science and technology has a clear therapeutic goal. Nowadays, music therapy has been studied and applied in various fields of hospital treatment, and has been proved to be an effective treatment for depression. (Paula, Luis & Carmen 2018)

2. THEORETICAL BACKGROUND

Bruscia (1991) defined music therapy as 'an interpersonal process in which the therapist uses music and all of its facets to help patients to improve, restore or maintain health' (Maratos, Gold, Wang & Crawford, 2008).

But, later in 1998, Bruscia suggested another alternative definition of music therapy as 'a systematic process of intervention wherein the therapist helps the client to promote health, using musical experiences and the relationships that develop through them as dynamic forces of change' (Geretsegger, Elefant, Mössler & Gold, 2014).

Music therapy not only includes music for treatment, it is complex and diverse. We cannot confuse music therapy with "music medicine", which covers music therapy and the scientific research on which it is based. (Music Medicine: About Music Medicine, 2020). Music therapy is a purposeful music intervention, which needs to be managed by trained music therapists. Music therapists need to develop professional music therapy plans to achieve personalized treatment goals for depression. (Bradt & DiLeo, 2010)

Music therapy works through modulation of attention, emotion, cognition, behavior and communication. First of all, when we have negative emotions, for example worry, pain, and anxiety, music can distract us and relieve our emotions. Secondly, there are active areas in the human brain that control emotions, which can be regulated by music. In addition, music can evoke and regulate behaviors such as walking and speaking, such as walking and speaking. In people's daily interpersonal communication, music also plays an important role, music is a means of communication. At the same time, music can also promote communication between people. Music has no borders. Music does not need language. Compared with relying on oral language, it enables all people to interact in a more emotional and harmonious way.(Heather, 2020)

The field of music psychology draws lessons from musicology, psychology, anthropology, acoustics, neurology, and sociology, and is a relatively new research field. Music therapy covers a multidisciplinary field. (Heather, 2020)

Perhaps the earliest description of the therapeutic properties of music appears in the Jewish Bible, where King Saul's depression is cured by the skilled musician David through music. Music therapy can be traced back to about 570-495. Pythagoras, a Greek philosopher and mathematician, prescribed a variety of musical scales and modes to cure a series of physiological and psychological conditions. Musically physiologically thoughted is the earliest reference on music therapy, which was published in a paper published in the Columbia Music Journal. The American Music Therapy Association, the world's largest music therapy organization, officially involved in music therapy, dating back to 1789. After the first world shaking up and the Second World War, amateur and professional musicians came to veterans' hospital to play for veterans suffering from physical and emotional trauma and received good curative effect. (Heather, 2020)

There are two methods of music therapy: the "receptive" listening based method and the "active" method based on playing musical instruments. There are two kinds of receptive music therapy: receptive "Relaxation" music therapy and receptive "analytical" music therapy. The former is usually used to treat anxiety, depression and cognitive impairment. (Heather, 2020)

Here is a list of music therapy techniques.

- Listening to live or recorded music
- Singing of familiar songs with live or recorded accompaniment
- Drumming
- Playing instruments, such as hand percussion
- Learning music-assisted relaxation techniques, such as progressive muscle relaxation or deep breathing
- Improvising music on instruments of voice
- Writing the music for new songs
- Dancing or moving to live or recorded music
- Discussing one's emotional reaction or meaning attached to a particular song or improvisation
- Writing song lyrics

- Learning to play an instrument, such as piano or guitar
- Creating art with music
- Writing choreography for music

A variety of alternative therapies can reduce the level of depression in hemodialysis patients. Music therapy can help hemodialysis patients maintain the best psychological and physical functions, thus improving their quality of life, life is long enough to be autonomous, independent and productive. As a non-verbal psychotherapy for depression, music therapy has achieved remarkable beneficial effects. (J. Kavitha 2015)

J. Kavitha studied 30 hemodialysis patients using certain musicals. Hoping that music can restore and maintain their emotional health and improve their well-being. In his study, he recorded rhythmic melodic music on CDs for 20 minutes a day for five days. The patient felt comfortable and satisfied after music therapy. Most of the samples were hemodialysis patients with mild borderline and moderate depression. The aim of this study was to evaluate the effect of music therapy on depression in hemodialysis patients. The average depression score of these patients before and after the test was 18.8 and 11.2 respectively. The results showed that music therapy had a significant effect on depression in hemodialysis patients. (J. Kavitha 2015)

In studies around the world, music therapy has been shown to have positive effects on the body, mind and emotion, physiology and spirit. The rhythm, vibration and soothing effects of music have positive effects on vital signs, emotions, motivation, and immune system. It can also promote, relax and relieve pain, relieve anxiety, stress and loneliness. The level of immunoglobulin A in saliva and melatonin in serum increased, and the degree of muscle stiffness decreased. Reduce the adverse reactions and complications. This is also good for the nurse patient relationship, as music helps to communicate and express emotions, and improves the quality of care by improving life satisfaction and quality of life. (Harvard Men's Health Watch 2011)

3. THE PURPOSE AND THE AIM OF THE THESIS

Music therapy plays an active role in the implementation of personalized therapy. The purpose of this thesis is to provide useful information for dialysis in patients with depression by writing guidelines. Assess the importance of focusing on depression in dialysis and help them familiar with the role of music in the treatment of depression. Effective

implementation of music-assisted therapy requires increased education and support for nurses, as well as a common set of best practice guidelines.

The purpose of this guide is to help nursing students understand the importance of music intervention in hemodialysis and guide them how to carry out music nursing intervention. To improve, implement and evaluate the effect of hemodialysis. It provides a theoretical basis for further study on the effect of musical intervention in different patient groups and environments. Monitor the quality of hemodialysis, and provide specific suggestions and useful learning materials for nursing students and medical institutions.

Through the implementation of music nursing intervention, the happiness index of hemodialysis patients was improved and the quality of life was improved.

The purpose of this guidebook is creating an original guidebook on music nursing intervention for dialysis patients with depression. The aim of this guide book is a guide book with clear thinking, proper vocabulary, easy to understand, and comprehensive information.

4. METHODOLOGY

4.1 DATA SEARCH AND COLLECTION

This is a functional paper, completed as a group work. The paper includes a theoretical part, which includes theoretical background information about music therapy, the definition of depression, dialysis and music therapy, and the impact of music therapy on depressed dialysis patients.

Qualitative research is a type of scientific research. It uses a set of predefined procedures to answer questions systematically by finding answers to questions, collecting evidence, generating unspecified discoveries and reaching discoveries that are not applicable to the scope of the research. Complete research on qualitative things. (Qualitative Research Methods Overview 1)

We work in small groups to implement plans, complete and evaluate tasks. In the clinical practice of the thesis team members, we learned that some elderly people who have undergone dialysis have depression, and also found that music has played a certain role in depression intervention. We consider it necessary to improve the understanding of

depression and music interventions by school nursing students in order to prevent and control adult depression well in hospitals or nursing homes. So our team created this functional thesis. We used qualitative research methods to collect data on topics and collected data from various of different sources: books, research literature and the internet. We search for keywords related to this topic for data search.

Keywords related to this topic are used for data search:

- Dialysis for the adult
- Depression in the adult
- Music intervention therapy
- Nursing

Authors are required to compile and analyse information during the preparation of the guide.

- 1) In the logic part of the language, the language should be concise and easy to read, and the consistency of the context is also required.
- 2) In terms of content, the content of a good guide should be closely related to the theme of thesis. The content of the guidelines must ensure authenticity and accuracy.
- 3) In terms of typography, the guide should make it easy for readers to look for keyword vocabulary, and authors should prioritize the most important parts.
- 4) At the same time, during data analysis, the thesis team members use some tables or graphics to make the guidebook more vivid.

4.2 DATA ANALYSIS

The data search process of this thesis conducts data search online. The few search terms we use are: "music therapy", "dialysis therapy", "depression", "music therapy effect", "music intervention" and " nursing role". The search terms are mixed and combined to ensure a comprehensive search of all possible related content.

The team filters from the search results to obtain the most useful literature. Group selection criteria

- Literature from 2009 to 2020

- Literature in English or Finnish
- Literature related to music therapy or music intervention
- Literature related to dialysis therapy
- Literature related to depression
- Combined literature on depression, dialysis therapy and music therapy

Data analysis is defined as the process of cleaning, transforming, and modeling data to discover useful information to make business decisions. Extracting useful information from data and making decisions based on data analysis is the purpose of data analysis.
(Guru99 2020)

There are several types of data analysis techniques. The main types of data analysis are:

- Text analysis
- Statistical Analysis
- Diagnostic analysis
- Predictive analysis
- Normative analysis

Data analysis includes the following stages:

- Data demand collection - find out the purpose or purpose of the analysis.
- Data collection - collect data according to needs.
- Data cleaning - cleaning up data that is useless or irrelevant and duplicated for analysis purposes.
- Data Analysis - After the data is collected, cleaned and processed, it can be analyzed.
- Data Interpretation - Interpretation of the results after data analysis, either in words, graphs and tables.
- Data visualization - Data visualization can appear in the form of charts and graphs.

(Guru99 2020)

The team cleaned and analyzed the screening data, met and exchanged regularly, classified and summarized the useful information of thesis, and completed the guidebook.

5. DEPRESSION AND DEPRESSION OF DIALYSIS

5.1 Definition of depression

Depression can have a negative impact on our feelings, thinking and acting, is a common and serious mental illness. When you suffer from depression, you often feel sad and lose interest in everything, which leads to emotional and physical problems and loss of ability to live and work. Fortunately, depression is treatable. (Ranna, M.D. & M.P.H. 2017)

The symptoms of depression from mild to severe may include the following aspects (these symptoms must last at least two weeks before they can be diagnosed with depression):

- Often feel depressed or sad
- Lose interest in things and activities around you
- Changes in appetite (weight loss or gain not related to diet)
- Sleep problems: drowsiness or insomnia
- Increased feeling of fatigue
- Increased aimless activity or observed movement and speech slowness by others
- feeling like worthless
- Difficult to concentrate or make decisions
- The tendency to die or commit suicide

(Ranna , M.D. & M.P.H. 2017)

There are many factors that affect the occurrence of depression. For example, differences in certain chemicals in the brain may cause depression symptoms, and depression also has genetic factors. In addition, if a person has an inferiority complex, he is easily overwhelmed by pressure, or a person with a pessimistic personality is more likely to feel depressed. There is also a person's growth environment is also very important. If a person lives in an environment where they continue to suffer from violence, neglect, abuse or poverty, they are more likely to develop depression. (Ranna, M.D. & M.P.H. 2017)

5.2 Pathology of depression

Due to the heterogeneity of clinical manifestations and etiology of depression, its pathophysiological mechanism has been difficult to determine. The existing depression theory only applies to certain types of depression patients, but not all types, and because the pathology and physiology of depression may vary greatly throughout the disease process, the existing The theory of depression is difficult to unify. (Gregory 2010)

Major depression (MDD) is a common and costly disease, which is one of the most important causes of disability in the world. MDD is a familial disease, which is mainly or completely caused by genetic factors. In the MDD pathogenesis factors, the genetic factor is about 30-40%, and the non genetic factor is 60-70%. The individual specific environmental impact of non genetic factors mainly includes children's experience of bad events (including childhood sexual abuse, other life-long trauma), and sustained stress caused by interpersonal communication. (Gregory 2010)

Stress hormones and cytokines are also one of the pathological factors of depression. In humans, the hypothalamus releases corticotropin releasing hormone (CRH) in response to the perception of psychological stress in the cerebral cortex. The hormone can induce the secretion of adrenocorticotrophic hormone (ACTH) from the pituitary gland, thus stimulating the adrenal gland to release cortisol into the plasma. Although MDD is considered to be a stress disorder, there is no evidence of hypothalamic pituitary adrenal axis (HPA) dysfunction in most patients treated with MDD. Only some patients showed abnormal HPA and hypothalamic CRH system. Significant changes in the secretion of stress hormones were found in depression patients with childhood trauma history. (Gregory 2010)

5.3 Definition of depression in dialysis

Depression, the most important neuropsychiatric complication of chronic kidney disease, can reduce quality of life and increase mortality. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)

Chronic kidney disease (CKD) is usually not found in the early stage, usually at the time of diagnosis is already late, and dialysis and kidney transplantation are the only options. After the start of dialysis treatment, the life and body of CKD patients will change, at the same time, life pressure will also increase, so CKD patients usually have mental illness complications, and depression is one of the most serious complications. The reason is that the prevalence of depression is high, the mortality rate is high. Because the

symptoms of depression, such as sleep disorders, fatigue, anorexia, are the same as uremia related symptoms, and the lack of systematic psychiatric assessment of patients, although the prevalence of depression is very high, it is often misdiagnosed. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)

In one study, 96 patients aged 18 or above who had been on hemodialysis for at least six months in a tertiary hospital were recruited. Twenty one questions were selected to answer, and Beck's Depression Scale (BDI) was used to evaluate the prevalence of depression. In addition, laboratory parameters such as hemoglobin, calcium, phosphorus and albumin were analyzed for dialysis patients. Investigation and data analysis showed that depression was related to dialysis shift (dialysis patients in the morning shift were more likely to suffer from depression than the dialysis patients in the evening shift), higher phosphorus level and lower hemoglobin level. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)

Despite the high prevalence of depression, research shows that less than 20% of patients with depression receive appropriate treatment with antidepressants or alternative therapy. Most people do not have relatively regular psychiatric monitoring or psychotherapy. (Flavio, Vega, Claudio, Milma, Maria & Rosilene 2014)

6. MUSIC INTERVENTIONS IN PEOPLE OF DIALYSIS

6.1 Definition of music intervention

Music interventions are a purposeful practice or method of performing music in which listening to music, making music, or singing to reduce stress and calm people down. Music intervention has a positive effect on stress reduction. (What is Music Therapy 2020)

Music therapy uses music to meet individual physical, emotional, cognitive and social needs. In the previous article, we mentioned that music therapy needs professional music therapists. After assessing the characteristics and needs of each patient, the music therapist will develop a unique treatment plan for each patient, which will include writing, singing, or listening to music. Through treatment, patients will shift the focus of life, so as to achieve the purpose of improving the condition. Music therapy also provides a channel for people to communicate, which helps people who are difficult to express themselves in words. (What is Music Therapy 2020)

6.2 Music as a nursing intervention on depression in adult people of dialysis

Many people think that music is just entertainment in life, while others use it in specific environment and daily activities. But, music is widely used in clinical treatment, and a large number of literatures can be consulted, such as pain control. However, there are few studies on the use of music therapy in dialysis patients. In the data search, a case study from China showed that nurses treated dialysis patients with music therapy, aromatherapy and massage, which greatly reduced the sense of despair and pressure of dialysis patients. A study in South Korea of the impact of music on depression showed that music therapy and control groups showed opposite results. The incidence rate of music therapy group was very low. (Leandro, Maria & Eliseth 2009)

6.2.1 Music as a nursing intervention

Given the serious shortage of nursing staff in our time, it seems extravagant to discuss music as a nursing intervention. Indeed, the lack of staff has made our work more difficult, and we are now going through a difficult period when nurses feel that they have to focus almost entirely on medical care rather than emotional care. But The status quo will change. When technology liberates the hands of nurses, nurses will have more time for emotional care. (Margot a)

It is known that we can get pleasure from music, but we don't realize that music doesn't bring us pleasant sound that simply enters our ears. Music resonates with our nervous system through a wave, a vibration, through which music can calm or stimulate our emotions. It can change our emotions to achieve homeostasis. Through these, music can help us enjoy and relax our life. (Margot b)

However, in nursing, needs to pay attention to the different forms of music, will bring people different emotional feelings. For example, people who love hard rock, especially heavy metal, are more likely to suffer from depression than ordinary popular music. Classical concerts make people less nervous and less emotional. New age music makes people relax, but it also reduces the clarity and vitality of the mind. These research data can help nurses understand how to use music according to the patient's situation and needs when

conducting intervention treatment for patients. Can make our nursing more valuable and targeted. (Margot c)

Music intervention therapy can be carried out alone or in groups. Music can be a distraction for patients with depression, and even can be used as an additional means to reduce the tension and lack of psychological tension. In the music nursing intervention, we should carefully plan according to the psychological status of patients, and nurses should have very accurate personal goals when making arrangements. During the music intervention, we should observe the reaction of patients. For example, are they calm? More exciting? Are they more anxious? We should pay close attention to these details in order to improve the nursing treatment plan. After the completion of music therapy, patients should be more active and easier to communicate. We should hold such a precious moment to assess the psychological status of patients. (Margot d)

Simple music nursing treatment steps:

- Understand personal preferences and characteristics of personal illness
- Develop clear treatment goals
- Discuss with the patient and explain the treatment steps and details
- Individual or group treatment
- Observe the reaction of patients during treatment
- Actively communicate the feelings after treatment
- Make the next treatment change according to the specific situation

Music intervention nursing treatment is diverse, not only listening to music, but also playing musical instruments, appreciating lyrics, singing songs and music related forms. Before music nursing treatment, we should discuss with the patients the treatment goals we pursue. If they don't know their music preferences, we can determine their music preferences by playing them different types of music through a simple test. If necessary, you can ask your relatives for help in purchasing materials. Before treatment, it is suggested that the patients should urinate to reduce the discomfort in the treatment. Before treatment, arrange a comfortable environment for patients and dim the lights. We also need to make sure that the volume is too large to make the patient feel uncomfortable. We should pay attention to the nursing music intervention treatment, once the patient has abnormal anxiety, we should immediately terminate the treatment. After that, we will discuss and adjust the treatment plan. (Margot e)

6.2.2 Music intervention for depression in adult people of dialysis

Dialysis patients first from their own pain and pressure of life have changed their satisfaction with life, reducing the quality of life of patients.

These pains can make dialysis patients suffer from depression, thus hiding their emotions. The stimulation of music allows them to bring these buried memories back to the surface. Beautiful melodies are often associated with happy moments in our lives or experiences in our lives. For example, music may remind us of the beautiful moment when we enjoyed the wedding ceremony with our loved one. It will remind us of the happy moment of the birth of a child, it will remind us of the wonderful time of holiday travel. Listening to music allows us to relive all these moments and emotions associated with happiness. (Nefrol 2018)

7. ETHICAL CONSIDERATIONS

The Finnish Research Integrity Advisory Board (TENK), appointed by the Finnish Ministry of Education and Culture, urges and prevents misconduct in the research process by all public organizations conducting research (such as universities, research institutions and universities of applied sciences). Their purpose is to promote and dissemination of information on the integrity of Finnish research to promote good scientific practice. (Master's Thesis Guidelines 2019, 6)

When creating the tis guidebook of the effectiveness of music as a nursing intervention on depression in adult people of dialysis, we strictly follow the principles of the medical education guide. This guide is provided free of charge to nursing students or nurses engaged in clinical work. They can use electronic guides or print them out.

We read and discussed the Ethical and legal guidelines in Bachelor's Thesis Guidelines before writing thesis. The purpose of this rule is to guide us how to write thesis, prevent us from plagiarism, plagiarism and other irregularities in writing, and help us improve the quality of the paper. We repeatedly use Ethical and legal guidelines during thesis writing process to check if we meet the standards.

This thesis is completed by Bachelor Degree in Health Care as a group. Small groups of workers conduct information collection and screening, and finally summarize the information to complete this guidebook. All thesis progress has been described in detail in Plan and process. When researching background and defining statements, we made objective statements based on search information. In effect analysis and guiding treatment, we integrate search information and integrate our own understanding. We are strictly following the Ethical and legal guidelines in Master's Thesis Guidelines from Lab University of Applied Science, and our thesis is ethical and honest.

8. PLAN FOR IMPLEMENTATION

8.1 Plan and process

In thesis creation process, we used Plan, Do, Study, Act (PDSA) cycles. Using the PDSA cycle allows you to learn changes in action. It's a great learning model. (ACT Academy 2-6)

In our thesis plan, before changing, we must understand what we want to achieve and how to measure improvement ideas. When making any improvements, we may not get the expected results, so testing the improvements on a small scale is safer and more effective until the improvements are fully implemented.

Plan, Do, Study, Act (PDSA) cycles:

- Plan – the change to be tested or implemented
- Do – carry out the test or change
- Study – based on the measurable outcomes agreed before starting out, collect data before and after the change and reflect on the impact of the change and what was learned
- Act – plan the next change cycle or full implementation. (ACT Academy 3)

DATE	PLAN	DO	STUDY	ACT
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08.01.2020	Consider the group members and get ready to start	Fill out the application form and submit the application to the university	Discuss how to start and complete the thesis, and check the thesis data completed by previous students	Discuss the topic selection of thesis based on the knowledge reserve of group members
16.01.2020	Receive a reply from the instructor and organize a group discussion	Decided that the thesis topic is: music as a nursing intervention on depression in pregnancy	Discuss and view information about the topic	Prepare to meet and talk with the instructor
27.01.2020	Prepare to meet with thesis instructor	Meet with thesis instructor and discuss thesis topic, decided to write A descriptive literature review	Check how to write a descriptive literature review and continue to improve the topic selection materials	Discuss possible changes in thesis in the future
12.02.2020	Arranged for the next meeting with thesis instructor to continue discussing the topic of thesis	Change the topic to Exercise as a nursing intervention during pregnancy	Discuss and query information based on the new topic selection, and start to arrange the development of the thesis plan	Discuss whether the topic is determined and whether it needs to be changed
20.02.2020	Arrange a meeting with thesis instructor and continue to discuss whether the topic is appropriate	Finally, the topic of thesis was changed to: The effectiveness of music as a nursing intervention	According to the topic selection, start to divide the work and do thesis	Start to prepare the thesis framework and access data

		on depression in adult people of dialysis	plan, check the data	
19.03.2020	The group considers joining new members and meets to discuss	The group met to talk about the thesis change process discussed with the thesis instructor before, and ask for opinions	Check the information together to see if the thesis topic is suitable for the group	Determine the appropriate topic, discuss the thesis structure, determine the division of tasks
18.04.2020	Organize a group to meet to discuss the progress of thesis plan	Exchange the completed parts and give each other opinions	Make improvements based on comments	Prepare for the next meeting with thesis instructor

DATE	PLAN	DO	STUDY	ACT
13.05.2020	Meet with thesis instructor to discuss the progress of thesis	Change writing literature review to writing Guidebook	Learning how to write a guidebook and discuss what changes need to do on framework of thesis	Discuss together the changes that thesis should make
20.05.2020	Plan to send the new thesis plan to thesis instructor for comments	Meet in groups and exchange thesis, put forward opinions and discuss and sort out changes together	Check out the guidebooks written by previous alumni, learn from them, and analyze the deficiencies of our own thesis	Organize the revised thesis plan and send it to the instructor
11.06.2020	The organization plans to meet	Video conference with thesis	Understand the deficiencies of	Detailed division of tasks for

	thesis instructor 's online meeting	instructor, listen to the changes needed in thesis, listen to suggestions and discuss	the thesis plan, and learn how to write a complete thesis about guide-book	the complete thesis
30.06.2020	Organize the last group meeting before the holiday	Discuss the completed thesis and exchange opinions	Discuss the thesis details, such as how to write reference, according to the guidance of Bachelor Thesis guidelines	Determine the meeting time after the holiday
04.08.2020	Meet for the first time after vacation, plan thesis progress	Exchange the completed thesis, discuss what should be changed, and further improve the thesis	Check the information together and compare our own thesis	Determine the complete thesis completion time and plan the time for thesis instructor's next meeting
17.08.2020	Plan to have a online meet with thesis instructor	Discuss the thesis with the thesis instructor and what needs to be improved	Make changes based on guidance that needs improvement	Prepare for final publication of thesis

8.2 Evaluating the guidebook

We chose to collect feedback from teachers and students of health care and nursing at lab University of Applied Sciences, colleagues from practice hospitals and clinical nurses we knew.

We chose ten different people, one of whom was a medical nursing teacher, five nursing registered nurses and four nursing students. In order to protect the privacy of participants, the feedback information will be destroyed after the topic is completed.

We put forward 10 questions about the appearance, layout and font of the topic, the practicability of the guide, the comprehensiveness of the content, the correctness and comprehensibility of the language, and the simplicity and logic of the guide language. We set a choice of 1 to 5 points for each question. The lowest is 1, the highest is 5. We sent the guide and questionnaire to the participants by email. After getting all the feedback, we sorted out and analyzed their answers. The 10 questions are:

- Are you interested in this guidebook?
- Are you satisfied with the layout and text of this guidebook?
- How to evaluate the logic of this guidebook.
- How would you rate the rigor of this guidebook?
- Is this guidebook easy to understand?
- How would you rate the usefulness of this guidebook?
- How would you rate the comprehensiveness of this guidebook?
- Can you find the information you want about the effects of music intervention on depressed dialysis patients in this guidebook?
- Through this guidebook you understand the extent to which music intervention affects depressed dialysis patients.
- How should the author improve this guidebook?

Almost all the feedback was positive. We got 3 from the feedback totally. According to the feedback, our guidelines are easy to understand and informative. The paragraph arrangement of thesis is reasonable and logical. The font space of the guide is in good order. Moreover, this guide has a strong educational significance, the content layout is clear and easy to understand. Even nursing students can quickly and accurately get the information they want from the guide.

At the same time, there are some suggestions in the feedback. Some medical words in the thesis are not particularly accurate. At the same time, participants hope to add some pictures to make the guide more vivid and interesting.

So based on feedback, we corrected the medical words and the habit of abbreviations to make the article easier to read. At the same time, we also added some pictures at the end to make this guidebook more interesting and vivid. All the pictures are created by ourselves.

9. DISCUSSION

In adults with dependent dialysis, depression is very common, and this result is associated with poor quality of life and increased mortality. It is well known that depression affects adults with end-stage renal disease (ESRD), partly because dialysis is accompanied by social, psychological and biological changes.

These changes will strengthen the depression of patients, resist the normal treatment for their own diseases, thus making the physical condition worse and affecting their health. These will form a vicious circle, and even lead to suicide.

Various studies have shown that music therapy has an obvious effect on reducing depression and improving the quality of life and satisfaction of patients. It can reduce the intensity of depression and awaken the happiness of life.

The guide we created includes specific recommendations for evaluation and implementation. The guide is suitable for doctors, nurses, students and staff who provide life assistance. This guide is easy to understand and very practical. It creates clear and comprehensive information. The layout in the content clearly shows the most important information and immediately arouses the interest of readers. In the future, nursing students or other healthcare providers can use this guide to obtain more useful information, and use music therapy to help patients prevent and improve depression caused by changes in quality of life and fear of death.

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The Symptoms of Depression

The symptoms of depression

These symptoms must last at least two weeks before they can be diagnosed with depression:

- Often feel depressed or sad
- Lose interest in things and activities around you
- Changes in appetite (weight loss or gain not related to diet)
- Sleep problems: drowsiness or insomnia
- Increased feeling of fatigue
- Increased aimless activity or observed movement and speech slowness by others
- feeling like worthless
- Difficult to concentrate or make decisions
- The tendency to die or commit suicide

List of music therapy techniques

List of music therapy techniques

- Listening to live or recorded music
- Singing of familiar songs with live or recorded accompaniment
- Drumming
- Playing instruments, such as hand percussion
- Learning music-assisted relaxation techniques, such as progressive muscle relaxation or deep breathing
- Improvising music on instruments or voice
- Writing the music for new songs
- Dancing or moving to live or recorded music
- Discussing one's emotional reaction or meaning attached to a particular song or improvisation
- Writing song lyrics
- Learning to play an instrument, such as piano or guitar
- Creating art with music
- Writing choreography for music

Simple music nursing treatment steps

Simple music nursing treatment steps

- Understand personal preferences and characteristics of personal illness
- Develop clear treatment goals
- Discuss with the patient and explain the treatment steps and details
- Individual or group treatment
- Observe the reaction of patients during treatment
- Actively communicate the feelings after treatment
- Make the next treatment change according to the specific situation