A literature review of benson relaxation technique for reducing anxiety in patients with chronic kidney disease

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ABSTRACT
Chronic renal failure is associated with abnormal kidney function and progressive loss of glomerular filtration rate. The therapy that can be given to patients with kidney failure is hemodialysis. Hemodialysis is a procedure for cleaning blood through an artificial kidney or dialyzer and assisted in its implementation by a machine. Kidney failure patients undergo therapy experience anxiety due to various stressors. Anxiety experienced by hemodialysis patients in Indonesia found the prevalence of anxiety 77.85 (42 respondents from 54 respondents) with various levels of anxiety. One way to overcome anxiety is to use relaxation therapy, including Benson relaxation. Benson relaxation is a breathing relaxation technique with the addition of an element of belief in the form of words that express the anxiety that is being experienced by the patient. The purpose of this literature is to determine the effectiveness of Benson's relaxation on reducing anxiety in chronic kidney failure patients undergoing hemodialysis. A literature review that is comparing some literature through the journal databases used are Pubmed, Google Scholar, Sciedirect, Garuda Portal and Jane Semantic. The keywords are "benson relaxation, anxiety, chronic renal failure and hemodialysis" or "benson relaxation technique on anxiety of patient hemodialysis" or "benson relaxation for anxiety disorders" or "benson relaxation for patients undergoing hemodialysis" or "non-pharmacological therapy for reduce anxiety from 2016-2021 full text There are seven journals reviewed and used in this literature review.

Keywords:
Benson relaxation; Anxiety; Chronic renal failure; Hemodialysis

INTRODUCTION
Kidneys are the most important organs in maintaining the composition of the blood in controlling body fluids to remain balanced, preventing the accumulation of waste and maintaining stable levels of electrolytes such as potassium, sodium and phosphate. (Noni Agustiya, Dian Hudiyawati, 2020). Kidneys have another function as the chemical composition of blood by excreting solutes and water selectively and as a volume regulator. Zees & Lapradja, (2021)stated that a disease related to the kidneys called kidney failure is a type of chronic disease that is difficult to cure and even tends to be incurable. In addition, this disease must also be accompanied by routine care through outpatient in a not short time. Chronic renal failure (CKD) is associated with abnormal kidney function and a progressive loss of glomerular filtration rate (Heshmati...
Prevalence of kidney failure according to (Nuri Kurniasari et al., 2016) in the world is quite high, with an estimated 8-16% of the total world population. Based on 2008 data, the population of each continent is 17.03% of patients in the United States, 19.96% in Europe and 11.5% in Asia-Australia (Zhang & Rothenbacher, 2008). Meanwhile, in Indonesia, there has been an increase in chronic kidney failure in the last three years as much as 33.2%.

Treatment of chronic kidney failure is divided into two stages, namely conservative management and renal replacement therapy (Haryanti & Nisa, 2015). Conservative management of renal failure consists of measures to prevent the progression of renal failure, stabilize the patient's condition and treat any reversible factors. Meanwhile, treatment for kidney replacement can be done with intermittent dialysis or kidney transplantation which is the most effective way to treat kidney failure. Based on PERNEFRI (Indonesian Nephrology Association) data in 2012, the types of service facilities provided by the renal unit are hemodialysis (78%), Continuous Ambulatory Peritoneal Dialysis (3%), transplant (16%) and Continuous Renal Replacement Therapy (3%).

The goals of conservative therapy in patients with renal failure are to prevent progressive deterioration of renal function, relieve complaints due to accumulation of azotemia toxin, optimally improve metabolism and maintain fluid and electrolyte balance. The conservative measures that can be given are diet management in patients with chronic kidney failure (Haryanti & Nisa, 2015). Renal replacement therapy is carried out in stage 5 chronic kidney disease, which is a GFR less than 15 ml/minute. The therapy can be in the form of hemodialysis, Continuous Ambulatory Peritoneal Dialysis (CAPD) and kidney transplantation.

Dialysis is a kidney replacement therapy that can treat and save millions of lives in End Stage Renal Disease (ESRD) patients. Advances in understanding kidney failure and its complications have resulted in the development of interventions for chronic kidney disease that can slow progression and improve disease complications (Haryanti & Nisa, 2015). Hemodialysis has become a routine medical treatment for End Stage Renal Disease (ESRD). In the Renal Registry of Indonesia, it was noted that the type of service most frequently used was hemodialysis services, showing a usage percentage of 82%. If conservative management is no longer able to maintain kidney function, then kidney replacement is carried out, namely hemodialysis which is the most used therapy for kidney failure patients. CAPD can be used as an alternative to dialysis therapy and kidney transplantation is the most preferred treatment for kidney failure patients but requires expensive funds.

The high rate of therapy with hemodialysis services is a concern for patients with chronic kidney failure. Hemodialysis is the process of cleaning blood with an artificial kidney or dialyzer and its implementation is assisted by a machine tool (Noni Agustiya, Dian Hudiyawati, 2020). Kidneys that are no longer able to function properly can be assisted by hemodialysis therapy. However, this therapy has an effect on patients who suffer from kidney failure in the form of biological and psychological disturbances. The function of hemodialysis is to help patients to have a quality of life that can be maintained. However, hemodialysis is not a therapy that can help the healing process or recovery from kidney failure suffered by the patient.

Patients with kidney failure undergoing hemodialysis therapy will face various kinds of problems including anxiety (Muhammad Hanif Faruq, Okti Sri Purwanti, 2020). Patients with CKD or chronic kidney failure undergoing therapy feel anxiety due to various stressors (Suwanto et al., 2020). The causes of anxiety felt by hemodialysis
therapy patients are equipment and machines that make them uncomfortable, such as foreign tools and treatment of equipment used in patients by stabbing (according to the function of the tool). Patients who feel anxious can be given medication or non-pharmacological interventions. But the use of drugs in patients with chronic kidney failure can cause side effects, so non-pharmacological interventions to reduce anxiety are undergoing hemodialysis. Anxiety experienced by hemodialysis patients in Indonesia, the prevalence of anxiety is 77.85 (42 respondents from 54 respondents) with various levels of anxiety. (NA et al., 2012).

Nursing is oriented in meeting and providing public health service needs, both biological, psychological, social and spiritual needs. Biological fulfillment of patients during illness and hospitalization is very common because of the routine work of the nursing profession, but psychological, spiritual and social fulfillment is still little done. (Himawan et al., 2019). In an effort to minimize patient anxiety, nurses can use Benson therapy. This therapy is one way to reduce feelings of anxiety in patients when nurses routinely monitor the effects of anxiety itself. Muhammad Hanif Faruq, Okti Sri Purwanti, (2020) argues that Benson relaxation can be defined as a method of breathing relaxation which is done by giving confidence to the patient in the form of words that contain the anxiety felt by the patient himself. The essence of Benson's relaxation is the use of words or sentences regularly and repeatedly. In addition, the form of the spoken word or sentence must also contain an element of surrender to God Almighty. This is done by making the body position to relax first through deep breathing and in the right way so as to reduce the feeling of tension and stress experienced by the patient. (Noni Agustiya, Dian Hudiyawati, 2020).

The advantage of practicing relaxation techniques compared to other relaxation techniques is that relaxation techniques are easier to do even under any conditions and do not have any side effects. (Morita et al., 2020). In addition, the Benson relaxation technique can also improve the patient's sleep quality (Nuri Kurniasari et al., 2016). Benson relaxation therapy usually takes only 10-20 minutes even under any conditions and has no impact on the patient (Anisah & Maliya, 2021). Purnami et al., (2019) revealed that there are disadvantages of relaxation techniques, namely that it requires a long time. That's because relaxation is done many times. This relaxation can be used once, but must consider one condition, namely the place used must be calm and comfortable.

The action of hemodialysis in several cases of chronic kidney failure has an impact, one of which is anxiety that can affect the patient's physical and psychological. One of the ways to treat patient anxiety is by using Benson's relaxation therapy. Benson relaxation can not only reduce physical and psychological anxiety but can increase confidence in healing the disease because in relaxation Benson pleads for healing from God Almighty. So the authors are interested in reviewing seven recent studies (last 5 years) on the effectiveness of Benson relaxation in reducing anxiety in chronic kidney failure patients undergoing hemodialysis.

METHOD

This writing method is a literature review using a comparison of several literatures. The journal literature used is nationally and internationally based. The inclusion criteria in the journal search include: Indonesian and English articles published in the last five years (2016-2021), the articles used are full text. The journal databases used are Pubmed, Google Scholar, Sciencedirect, Portal Garuda and Jane Semantic. The
keywords used are "benson relaxation, anxiety, chronic renal failure and hemodialysis" or "benon relaxation technique on anxiety of patient hemodialysis" or "benson relaxation for anxiety disorders" or "benson relaxation for patients undergoing hemodialysis" or "therapy non-pharmacological to reduce anxiety. To determine the effectiveness of the intervention, the keywords used were the effect of gasoline relaxation, quality of life, Chronic Kidney disease. From the results of a literature review, it can be seen the level of effectiveness of Benson relaxation in reducing anxiety in hemodialysis patients.

RESULTS AND DISCUSSION

Based on the results of a literature search with keywords according to the identified research methods, then filtering according to the inclusion criteria obtained the final results of 7 articles to be reviewed. Described as in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Author (Year)</th>
<th>Title</th>
<th>Methodology</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Noni Agustiya, Dian Hudiyawati and Arif Putra Purnama. (2020). The Effect of Benson Relaxation Effectiveness on Anxiety in Patients Undergoing Hemodialysis in the Hemodialysis Unit</td>
<td>Destination: to determine the effect of Benson's relaxation on the anxiety of patients undergoing hemodialysis.</td>
<td>Research methods: using a quasi-experimental design with a pre-experimental one group pretest and posttest design</td>
<td>Based on these results, it shows that the average value of anxiety before Benson relaxation intervention is 44.28 with a standard deviation of 8.30. while the average value of anxiety after being given Benson relaxation intervention is 34.42 with a standard deviation of 6.73. the difference in the value of anxiety before and obtained p &lt;0.05 so that there is a significant difference between before and after the intervention. The application of EBN with Benson's relaxation intervention on anxiety before and after the intervention had a significant application (p&lt;0.05)</td>
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<tr>
<td>2.</td>
<td>Uswatun Hasanah, Anik Inayati. (2021). Benson Relaxation Reduces Anxiety Levels in Chronic</td>
<td>Destination: to determine the effect of Benson relaxation on CKD patients undergoing hemodialysis.</td>
<td>Research methods: pre experimental design, quasi-</td>
<td>The control group experienced a change in the level of anxiety, but it was not significant. The results of statistical tests using paired samples t test showed that Benson's relaxation can affect the</td>
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</table>
Kidney Failure Patients Undergoing Hemodialysis

**Experimental pre-port with control group**

**Sample:** 56 people divided by 28 people in the intervention group and 28 people in the control group

**Instruments:** Hamilton Anxiety Rating Scale (HARS)

**Intervention**
The intervention was given to the intervention group, namely Benson relaxation therapy for 10 minutes with the patient sitting comfortably in a quiet room then closing his eyes, the patient relaxing the muscles from the toe to the face then the patient taking a deep breath through the nose and then holding for 3 seconds and exhaling through the mouth. slowly while saying istigfar.

The results of the Univariate analysis showed the effect of giving treatment on decreasing the anxiety scale before and after in the intervention group. Assumed variance is 0.03 < 0.05, so as for decision making in independent t-test, it can be concluded that Ho is rejected and Ha is accepted. Thus, the conclusion from the independent t test is that there is a difference between the decrease in anxiety in the control group and the intervention group.

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- **Destination:** to determine the effect of Benson’s relaxation in patients undergoing hemodialysis
- **Research methods:** quasi-experimental pretest post-test with control design.
- **Sample:** 10 patients in the control group and 10 patients in the intervention group.
- **Instruments:** Beck Anxiety Inventory (BAI)
- **Intervention:** Treatment in the intervention group by positioning the patient and then inhaling through the nose, inhale through the mouth and when exhaling through the mouth while muttering in the heart Allahu Akbar for 10 minutes.

The results prove that descriptively there is a change in the average value of anxiety scores in hemodialysis patients.
and Slow Stroke Back Massage on Reducing Anxiety in Hemodialysis Patients.

**Research methods**: Quasi experiment with one group pre test post test method.

**Sample**: 22 people

**Instruments**: Hamilton Anxiety Rating Scale (HARS)

**Intervention**: The intervention was given Benson relaxation therapy for 10 minutes with the patient sitting comfortably in a quiet room then the patient closed his eyes, the patient relaxed the muscles from the toes to the face then the patient took a deep breath through the nose and held for 3 seconds and exhaled through the mouth slowly while saying istighfar. After being given Benson's relaxation exercises, respondents were then given slow stroke back massage therapy for 10 minutes.

Between pretest and posttest. Changes in the average value of this anxiety can be said to be significant because the value of $p = 0.00$ ($p < 0.05$). This proves that the Benson relaxation technique and Slow Stroke Back Massage are effective in reducing anxiety in hemodialysis patients.


**Destination**: The purpose of this study was to determine the effectiveness of Benson's relaxation with anxiety in hemodialysis patients in Yogyakarta.

**Research methods**: Quasi experimental pretest and posttest with a comparison group design.

**Sample**: 14 people are needed for each intervention and control group.

**Instruments**: Analog Anxiety Scale

**Intervention**: Within a period of 2 weeks, the intervention group was given Benson relaxation at 06.00 every day, while the control group was given at 17.00 but did not receive any intervention.

Based on the data shows that the average value of anxiety in the intervention group is 21.93, while in the comparison group the average value of anxiety is 17.19. Both data showed that the pretest and posttest anxiety scores in both groups decreased, namely moderate anxiety to mild anxiety.

Based on statistical analysis, the decrease in anxiety in both groups was significant in the intervention group $p = 0.001$ ($p < 0.05$) and the intervention group control $p = 0.014$ ($p < 0.05$).

6. Eman Baleegh et al. (2019). The Effects of Benson relaxation on The results show an association between socio-demographic
of Benson's Relaxation technique on Anxiety, Depression and Sleep Quality of Elderly Patients Undergoing Hemodialysis

Researchers identified hemodialysis patients (elderly) who have anxiety, sleep quality, and levels of depression. **Research methods:** Quasi experimental

**Sample:** 92 respondents

**Instruments:** Mini Mental State Examination, HADS, PSQI

**Intervention:** the patient is asked to sit in a comfortable position, close his eyes, relax all muscles from the soles of the feet to the top of the head move forward and relax all parts of the body. Inhale through the nose then exhale through the mouth and each exhale repeat a kara or number (as god) comfortably and confidently. And relax for 20 minutes

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| **Destination:** to find out Benson relaxation exercises in hemodialysis patients against changes in stress, anxiety and depression

**Research methods:** random trial

**Sample:** Population 80 patients (N = 40 patients in the experimental group and N = 40 in the control group)

**Instruments:** DASS21

**Intervention:** Benson's relaxation exercise was carried out in the intervention group for 15 minutes twice a day for 4 weeks. The patients were assessed on a depression, anxiety, and stress scale; completed before and after the intervention.

Kidney failure is a chronic disease that is permanent, cannot be cured and requires treatment and outpatient treatment for a long time (Zees & Lapradja, 2021). Chronic kidney disease is often known as CKD or Chronic Kidney Disease. CKD can be defined
as a process of kidney function that begins to decline irreversibly through pathophysiological processes with various etiologies. This can make patients often referred to as patients with kidney failure. End-stage CKD causes the patient to undergo hemodialysis as renal replacement therapy. Kidneys that are no longer able to function properly can be assisted by hemodialysis therapy. However, this therapy has an effect on patients who suffer from kidney failure in the form of biological and psychological disturbances. This therapy only helps patients to have a good quality of life.

Cahyani et al., 2016 stated that hemodialysis has side effects when patients with the disease do it regularly, including pain, fever, pruritis, and diarrhea.disequilibrium syndrome. Wakhid et al., (2018) also have the opinion that patients suffering from kidney failure should undergo dialysis therapy to get a new kidney transplant through surgery. Therapy is usually carried out 1-3 a week by the patient as long as he lives. (This condition can cause biological, psychological, social, and spiritual imbalances. Patients with chronic kidney failure, especially those undergoing hemodialysis for a long period of time will experience psychological problems such as feelings of anxiety. Anxiety which is usually triggered by several factors, such as financial problems, occurs role conflict, difficulty in maintaining a job, disrupted relationships with close friends. (Rokhyati et al., 2019).

Mild to severe anxiety is often felt by patients with chronic kidney failure undergoing hemodialysis. Severe anxiety will affect the human nervous system, namely the hypothalamus which functions to control and regulate the autonomic nervous system. In conditions of anxiety, this nervous system will release norepinephrine through the secretions of the nerve endings associated with the end of the person being addressed(Dwi Prajayanti & Mustika Sari, 2017). As a result, the client's heart rate increases because peripheral vasoconstriction causes blood pressure to increase. Other physiological responses caused include occasional shortness of breath, mild stomach symptoms, wrinkled face and trembling lips(Ariwijaya et al., 2020). This corresponds to(Zees & Lapradja, 2021) that most of those undergoing hemodialysis experience moderate to severe levels of anxiety. Anxiety is not a disease but a symptom.

The level of anxiety experienced by patients with chronic kidney failure is due to lack of knowledge related to hemodialysis, changes in lifestyle, time is needed for therapy, depression due to kidney failure and the cost of therapy is quite expensive.(Zees & Lapradja, 2021). According to(Gerogianni et al., 2019) Anxiety in people undergoing hemodialysis can be reduced by various methods, such as therapy with antidepressants, psychological interventions, regular exercise and relaxation therapy and techniques. One of the therapies used to reduce anxiety is Benson relaxation, including in chronic kidney failure patients undergoing hemodialysis. Benson relaxation is a relaxation technique combined with the beliefs held by(Dwi Prajayanti & Mustika Sari, 2017). Benson's relaxation method leads to stress and anxiety reduction in hemodialysis patients because it includes various rhythmic breathing relaxation techniques, such as slow breathing, deep breathing, breathing meditation and abdominal breathing.

In an effort to carry out Benson relaxation in order to achieve success, there are four elements that influence each other, such as the patient being able to relax the muscles of the body, a calm environment, the patient being able to think positively, and focusing for 10-15 minutes. In this case, this relaxation contains two activities, namely the belief factor and the relaxation itself(Rahman et al., 2020). Benson relaxation works by inhibiting sympathetic nerve activity which reduces oxygen consumption by the body then the muscles of the body will relax so that the client will feel calm and
comfortable. It is similar to (Alfikrie et al., 2020) that breathing relaxation exercises for three days with a period of 2 times a day can reduce anxiety scores in chronic kidney failure patients undergoing hemodialysis. In addition, Benson relaxation can also reduce stress in the elderly in line with research (Rokhman, 2021) said Benson relaxation can be a therapy to reduce stress in the elderly.

Anxiety suffered by patients with kidney failure can be minimized through Benson relaxation, which includes activities that reduce muscle tension and cortisol secretion. This relaxation affects the respiratory function, heart rate, and cardiac workload of patients with kidney failure. Therefore, Benson relaxation can have a positive impact on reducing stress by providing a sense of relaxation and decreasing cortisol secretion. Cortisol is the first hormone secreted by the adrenal glands in response to stress and sleep disturbances (Yoon & Park, 2019). Ariwijaya et al., (2020) states that there are effects in the form of physiological changes such as a decrease in heart rate, blood pressure, metabolic rate; the need and consumption of oxygen that can be reduced, and minimize the condition of tense muscles that are owned by hemodialysis therapy patients.

Benson relaxation has been shown to reduce anxiety in hemodialysis patients by doing twice a day for 10-15 minutes for a period of 4 weeks. This is in line with (Gondo Arintokol, Arina Maliya, 2019) which states that the Benson relaxation given to patients can affect the anxiety of patients undergoing hemodialysis therapy at the Ir. Soekarno Sukoharjo. The essence of Benson's relaxation is the use of words or sentences regularly and repeatedly. In addition, the form of the spoken word or sentence must also contain an element of surrender to God Almighty. This is done by making the body position to relax first through deep breathing.

It does not match (Nuri Kurniasari et al., 2016) that the value of pretest and posttest anxiety in the two groups, namely the intervention group and the comparison group, decreased, namely moderate anxiety to mild anxiety. In addition, the two data did not show a significant difference between the intervention and comparison groups. This is probably because the intervention time given to the intervention group was shorter, namely 2 weeks and the number of respondents was different. Purnami et al., (2019) revealed that there are disadvantages of relaxation techniques, namely that it requires a long time. That's because relaxation is done many times. This relaxation can be used once, but must consider one condition, namely the place used must be calm and comfortable.

Similar research has been carried out at the Pusri Hospital in Palembang using a combination relaxation therapy technique, namely soaking the feet in warm water to reduce the anxiety of hemodialysis patients. There was a significant difference between the anxiety levels of CKD patients who underwent hemodialysis before and after in the intervention group and the control group with a p value of 0.013 (p <0.05). (Ariwijaya et al., 2020). This shows that there is an effect of relaxation combination therapy on anxiety levels in CKD patients undergoing hemodialysis.

CONCLUSION

Kidney failure is a chronic disease that is permanent and cannot be cured. Hemodialysis is used as a therapy to maintain the patient's quality of life. However, hemodialysis is not a therapy that can help the healing process or recovery from kidney failure suffered by the patient. Patients with CKD or chronic kidney failure in the long term will experience psychological problems such as feelings of anxiety caused by
routine hemodialysis therapy. The way or method that can be done to minimize this anxiety in CKD patients who are undergoing hemodialysis is Benson relaxation.

Benson relaxation is a relaxation technique that is combined with the beliefs held by the patient. Benson relaxation reduces anxiety by reducing muscle tension and cortisol secretion. So that Benson relaxation is proven to be effective in reducing anxiety in chronic kidney failure patients undergoing hemodialysis in a quiet environment, patients can relax the muscles of the body, focus for 10-15 minutes and think positively.

Implementation for the nursing profession to increase willingness to teach, guide and apply Benson relaxation therapy to reduce anxiety in chronic kidney failure patients before and after hemodialysis. In addition, it can improve the ability of the nursing profession to provide interventions and implementation, improve communication skills and interaction with clients. In addition, hemodialysis room nurses need to consider Benson relaxation as a non-pharmacological therapy to reduce anxiety in hemodialysis patients because Benson relaxation has no side effects and is cost-effective.

BIBLIOGRAPHY


