



ART THERAPY ON STRESS AND ANXIETY OF CHRONIC KIDNEY FAILURE (CRF) PATIENTS WITH HEMODIALYSIS IN BOGOR CITY HOSPITAL

Nienie Ritianingsih*, Farial Nurhayati, Amid Salmid

Departement of Nursing, Poltekkes Kemenkes Bandung, Jl. DR. Sumeru No.116, Menteng, Kec. Bogor Barat, Kota Bogor, Jawa Barat 16111, Indonesia

*nieniekrn@gmail.com

ABSTRACT

Chronic kidney disease includes conditions that damage the kidneys and decrease their ability to keep them healthy to do work. In addition to physical complaints experienced by someone with kidney failure, many psychosocial complaints are also found such as sadness, anxiety, fear, and even feelings of helplessness due to suffering from an illness. The current state of the COVID-19 pandemic causes increased stress and anxiety in the community. One of the nursing actions in overcoming stress and anxiety in patients with kidney failure is Art Therapy. Objective to determine the effect of art therapy on the anxiety of chronic kidney failure patients with hemodialysis at the Bogor City Hospital. Methods: This research is a quantitative study using a quasi-experimental method with a pre post test approach with control group design. There is a difference in pre stress scores and post stress scores in the intervention group (p value 0.001). There is a difference in pre anxiety scores and post anxiety scores in the intervention group (p value 0.001). There is a significant difference between the stress score of the control group and the stress score of the intervention group after performing art therapy (0.031). There was a significant difference between the anxiety scores of the control group and the anxiety scores of the intervention group after performing art therapy (p value 0.001). Art therapy is effective for chronic kidney failure patients who experience stress and anxiety. Nurses can use this therapy to provide psychosocial nursing care.

Keywords: anxiety; art therapy; chronic kidney failure (CRF); hemodialysis; stress

First Received

08 May 2022

Revised

12 June 2022

Accepted

09 August 2022

Final Proof Received

18 August 2022

Published

28 August 2022

How to cite (in APA style)

Ritianingsih, N., Nurhayati, F., & Salmid, A. (2022). Art Therapy on Stress and Anxiety of Chronic Kidney Failure (CRF) Patients with Hemodialysis in Bogor City Hospital. *Indonesian Journal of Global Health Research*, 4(3), 527-534. <https://doi.org/10.37287/ijghr.v4i3.1232>.

INTRODUCTION

Chronic kidney disease includes conditions that decrease a patient's ability to stay healthy and perform work. If kidney disease gets worse, urea and creatinine, metabolic waste will accumulate and cause uremia syndrome. Complications of chronic kidney disease such as high blood pressure, anemia (low blood count), weak bones, poor nutritional health and nerve damage. his kidney was badly damaged. In addition to the physical complaints experienced by someone with kidney failure, there are also many psychosocial complaints such as sadness, anxiety, fear, and even feelings of helplessness due to illness. The patient's psychological condition like this will affect the patient's quality of life. The current state of the COVID-19 pandemic causes increased stress and anxiety in the community. Kidney failure is one of the comorbid covid 19 diseases that can cause stress and anxiety in patients with CKD.

The average quality of life of patients with chronic renal failure is 56.98%. The results of the analysis showed that the average pre-social function domain in the control group was

61.40%. The results of the analysis showed that the average pre-emotional role domain in the control group was 62.36%. The results of the analysis showed that the mean pre mental health domain in the control group was 66.21%. The quality of life of CKD patients is still low. The social, emotional and mental health domains in general are also still relatively low (Ritianingsih, 2019). One of the nursing actions in overcoming stress and anxiety in patients with kidney failure is Art Therapy. Art therapy is a therapeutic technique using art media, creative processes, and the results of art to explore feelings, emotional conflicts, increase self-awareness, control behavior and addiction, develop social skills, improve reality orientation, reduce anxiety and increase self-esteem (American art therapy Association, 2017).

Art Therapy is widely used, because it tends to be easy to do, and can be used for various ages, ranging from children, teenagers, adults, even the elderly can do this. In addition, art therapy also does not require high artistic skills. The following are some examples of art therapy that is often used in psychotherapy, namely drawing and painting, coloring, folding paper, making sculptures or shapes from clay, psychodrama / therapy using drama, music and writing songs and others. Art therapy can have an effect in reducing the level of depression in chronic renal failure patients with hemodialysis ($t = 0.764$; $p\text{-value} = 0.000$) (Fatmawati et al., 2018). Art therapy can reduce anxiety in cancer patients. Decreased physiological responses to anxiety symptoms is evidence that shows that art therapy can reduce anxiety in cancer patients (Sarah & Hasanat, 2010). The purpose of this study was to determine the effect of art therapy on the anxiety of chronic kidney failure patients with hemodialysis at the Bogor City Hospital.

METHOD

Art therapy drawing is a form of image therapy, which can be used as a means of expressing one's expression. Commonly used terms are art or expressive therapy or image therapy (Hidayah, 2014). Art therapy drawing is a way to express positive and negative thoughts and feelings about yourself, your family, and the world.

The goals of art therapy are:

1. Allows the individual to be aware of physical symptoms, thoughts, and feelings.
2. Allows the individual to relate to and deal with physical symptoms, thoughts, and feelings in a more functional way.
3. Enables individuals to accept themselves regarding their level of activity, performance, and abilities.
4. Improve the perceived self-image in relation to self and others.
5. Increase current activity level and ability or function.
6. Improve the quality of life.

The DASS is a set of three self-report scales designed to measure negative emotional states of depression, anxiety, and stress. The DASS was constructed not simply as another set of scales for measuring conventionally defined emotional states, but to further the ubiquitous and clinically significant process of defining, understanding, and measuring emotional states that are typically described as depression, anxiety and stress. Therefore, DASS must meet the requirements of researchers and physician scientists. Each of the three DASS scales contains 14 items, divided into a subscale of 2-5 items with similar content. The Depression Scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and the subjective experience of feeling anxious. The stress scale is sensitive to non-specific levels of chronic arousal. It assesses relaxation

difficulties, nervous arousal, and irritability/restlessness, irritability/overreactive and impatient. Subjects were asked to use a 4-point severity/frequency scale to rate the extent to which they had experienced each condition during the past week. Scores for Depression, Anxiety and Stress were calculated by adding up the scores for the relevant items (Australian Psychology Foundation & University New South Wales Sydney, 2020).

Procedure

The data collection process is carried out through the following stages:

1. Manage research permits to the hospital.
2. Two weeks before the research was conducted, art therapy training was conducted by expert researchers to research assistants from the hospital.
3. One week before the research, there will be an introduction to the art therapy program for pre-conditions
4. After the pre-condition, patients were selected according to the inclusion criteria from the existing population to meet the required number of samples.
5. Respondents who have met the inclusion criteria signed the informed consent form.
6. Stress and anxiety intervention group
7. Furthermore, the intervention group received art therapy for 4 meetings (45 minutes) in the hemodialysis room, while the control group continued to receive nursing care according to hospital standards.
8. After 2 weeks, the second measurement was repeated for each group.
9. The results of each group were then compared.

RESULTS

Table 1.

Distribution of pre and post stress and anxiety in the control group (n=41)

Variable	Mean	SD	Minimum-Maximum	95% CI
Stress pre intervention	18,61	7,73	6-36	16,17-21,05
Stress post intervention	18,32	6,36	8-30	16,31-20,33
Anxiety pre intervention	16,32	6,99	3-32	14,11-18,52
Anxiety post intervention	16,46	6,14	6-30	14,52-18,40

The results of the analysis showed that the average pre stress score in the control group was 18.61, the average post stress score in the control group was 18.32, with a standard deviation of 6.36. The results of the analysis showed that the mean pre anxiety score in the control group was 16.32, with a standard deviation of 6.99, the lowest anxiety score was 3 and highest anxiety 32. The mean score of post anxiety in the control group was 16.46, with a standard deviation of 6.14.

Table 2.

Distribution of pre and post stress and anxiety in the intervention group (n=41)

Variable	Mean	SD	Minimum-Maximum	95% CI
Stress pre intervention	19,24	9,33	6-39	16,30-22,19
Stress post intervention	14,54	9,01	1-35	11,69-17,38
Anxiety pre intervention	14,78	8,87	2-35	11,98-17,58
Anxiety post intervention	10,51	6,99	1-26	8,30-12,72

The results of the analysis showed that the mean pre stress score in the intervention group was 19.24, with a standard deviation of 9.33. The mean post stress score in the intervention group was 14.54, with a standard deviation of 9.01. The results of the analysis showed that the mean pre anxiety score in the intervention group was 14.78, with a standard deviation of 8.87. The mean post anxiety score in the intervention group was 10.51, with a standard deviation of 6.99.

Table 3.
Distribution of the average pre and post stress in the control group n=41)

Stress	Mean	SD	SE	P value
Stress pre intervention	18,61	7,73	1,20	0,738
Stress post intervention	18,32	6,36	0,99	

The statistical test results obtained a value of 0.323, so it can be concluded that there is no difference in pre stress scores and post stress scores in the control group.

Table 4.
Distribution of the average pre and post anxiety in the control group (n=41)

Anxiety	Mean	SD	SE	P value
Anxiety pre intervention	16,32	6,99	1,09	0,486
Anxiety post intervention	16,46	6,14	0,96	

The results of statistical tests obtained a value of 0.486, so it can be concluded that there is no difference between pre anxiety scores and post anxiety scores in the control group.

Table 5.
Distribution of the average pre n post stress in the intervention group (n=41)

Stress	Mean	SD	SE	P value
Stress pre intervention	19,24	9,33	1,46	0,001
Stress post intervention	14,54	9,00	1,40	

The results of statistical tests obtained a value of 0.001 so it can be concluded that there is a difference in pre stress scores and post stress scores in the intervention group.

Table 6.
Distribution of mean pre and post anxiety in the intervention group (n=41)

Anxiety	Mean	SD	SE	P value
Anxiety pre intervention	14,78	9,87	1,39	0,001
Anxiety post intervention	10,51	6,99	1,09	

The results of the statistical test obtained a value of 0.001 so it can be concluded that there is a difference in pre anxiety scores and post anxiety scores in the intervention group. The results of the statistical test obtained a p value of 0.74, there was no significant difference between the stress score of the control group and the stress score of the intervention group before performing art therapy.

Table 7.

Distribution of mean pre-anxiety according to art therapy interventions in patients with chronic kidney failure (n=41)

Art therapy	Mean	SD	SE	P value
Control group (not doing)	16,32	6,99	1,09	0,39
Intervention group (doing)	14,78	8,87	1,39	

The results of statistical tests obtained p value of 0.39, so it can be concluded that there is no significant difference between the anxiety scores of the control group and the anxiety scores of the intervention group before performing art therapy.

Table 8.

Distribution of average post stress according to art therapy interventions in patients with chronic kidney failure (n=41)

Art therapy	Mean	SD	SE	P value
Control group (not doing)	18,32	6,36	0,99	0,031
Intervention group (doing)	14,54	9,01	1,41	

The statistical test results obtained a p value of 0.031, so it can be concluded that there is a significant difference between the stress score of the control group and the stress score of the intervention group after performing art therapy.

Table 9.

Average distribution of post anxiety according to art therapy interventions in patients with chronic kidney failure (n=41)

Art therapy	Mean	SD	SE	P value
Control group (not doing)	16,46	6,14	1,09	0,001
Intervention group (doing)	10,51	6,99	0,96	

The results of the statistical test obtained a p value of 0.001, so it can be concluded that there is a significant difference between the anxiety scores of the control group and the anxiety scores of the intervention group after performing art therapy.

DISCUSSION

The results showed that the stress response was found that from 34 respondents, there were 10 respondents (29.41%) experiencing normal stress, 19 respondents (55.88%) experiencing mild stress, and 5 respondents (14.71%) experiencing moderate stress (H et al., 2019). The majority of respondents experienced anxiety with moderate anxiety levels 19 people (61.3%), while the minority of respondents with severe anxiety levels 4 people (12.9%) (Damanik, 2020). Terminal stage chronic kidney disease causes patients to undergo hemodialysis, because chronic kidney disease itself can cause anxiety and depression in patients to increase, so social support is needed for sufferers. The complexity of the problems that arise during hemodialysis will have an impact on the occurrence of anxiety in patients (Scientific et al., 2018). There were 2 patients with mild stress (6%), 21 people with moderate stress (58%), 13 people with severe stress (36%).

In this study, the results of statistical tests obtained a p value of 0.031, so it can be concluded that there is a significant difference between the stress score of the control group and the stress score of the intervention group after art therapy. Art therapy affects the stress of the

elderly at BPSTW Yogyakarta Budi Luhur Unit (Dewa Gede, Agung Agus S, Cristin Wiyani, 2017). Art therapy can reduce stress in hemodialysis patients. With art therapy, patients feel more relaxed and less stressed.

The results showed that there was an effect of art therapy on decreasing anxiety scores. The mean total anxiety score before intervention in burn children in the painting, music, and control groups was measured at 0.4 ± 5.4 , 84.8 ± 6.8 , and 77.4 ± 13.8 , respectively. -each. However, the mean total anxiety scores after intervention in burn children in the painting, music, and control groups were estimated to be 53.3 ± 4.4 , 45.9 ± 8.4 , and 72.4 ± 12 , respectively. ,9 ($p < 0.001$) there is an effect of art therapy on reducing anxiety (Rezazadeh et al., 2020). Art therapy can be used as a nursing intervention to reduce anxiety and depression in post-stroke patients in hospital. However, studies on art therapy and its effect on anxiety and depression in post-stroke patients are very limited (Mare, 2019). Hemodialysis patients experience a lot of anxiety, especially patients who are new to hemodialysis. With art therapy, patients get activities that can reduce their anxiety.

The results of the stress questionnaire showed no significant difference in mean between the study and control groups with respect to stress level scores. However, comparing scores on the post-art therapy time group, the mean stress level score for the study group was lower than the score for the control group. This shows that art therapy can reduce employee stress levels (Visnola et al., 2010). Art therapy is suitable as the best solution for a client or works the same way for another client. Therefore, it is important to provide evidence of the efficiency of preferred treatment options. Clients themselves need to know that art therapy treatments have been shown to reduce the challenges they face (Sarah C. Slayton MA et al., 2011) The process of creating art can help people become more aware of previously hidden feelings. Art therapy can help people become clearer about their feelings. it can be used to help adults play and relax. Recapture the ability to play which leads to creativity and health (Hendry, 1986). Patients get fun activities with art therapy coloring pictures. Patients can express their feelings through these activities.

CONCLUSION

The results of statistical tests obtained p value of 0.031, so it can be concluded that there is a significant difference between the stress score of the control group and the stress score of the intervention group after performing art therapy. The results of the statistical test obtained a p value of 0.001, so it can be concluded that there is a significant difference between the anxiety scores of the control group and the anxiety scores of the intervention group after performing art therapy. Art therapy interventions can be used by nurses to reduce stress and anxiety levels in patients.

REFERENCES

- American Art Therapy Association. (2017). Updated June 2017. *(Broader) Definition of Art Therapy*., June, 2017.
- Australian Psychology Foundation, & University New South Wales Sydney. (2020). Overview of the DASS and its uses. In Australian Psychology Foundation (pp. 1–2). <http://www2.psy.unsw.edu.au/dass/over.htm>
- Damanik, H. (2020). Tingkat Kecemasan Pasien Gagal Ginjal Kronik Dalam Menjalani Hemodialisa. *Jurnal Ilmiah Keperawatan Imelda*, 6(1), 80–85.

- Dewa Gede, Agung Agus S, Cristin Wiyani, R. E. (2017). Terhadap Stres Pada Lansia. *Pengaruh Art Tehrapy Terhadap Stres Lansia*, 13, 192–202.
- Fatmawati, A., Soelaeman, M. R., & Rafiyah, I. (2018). the Application of Art Therapy To Reduce the Level of Depression in Patients With Hemodialysis. *Belitung Nursing Journal*, 4(3), 329–335. <https://doi.org/10.33546/bnj.407>
- H, R. R., Munawaroh, S., & Mashudi, S. (2019). Respon Stres Pasien Gagal Ginjal Kronik Yang Menjalani Hemodialisa. *Health Sciences Journal*, 3(1), 78. <https://doi.org/10.24269/hsj.v3i1.222>
- Hendry, J. (1986). Art therapy for groups: The handbook of themes, games and exercises. In *Nurse Education Today* (Vol. 6, Issue 6). [https://doi.org/10.1016/0260-6917\(86\)90045-6](https://doi.org/10.1016/0260-6917(86)90045-6)
- Hidayah, R. (2014). The Effect of Art Therapy on Children's Self-Concept. *Makara Human Behavior Studies in Asia*, 18(2), 89. <https://doi.org/10.7454/mssh.v18i2.3464>
- Silaen, H.,. (2018). Pengaruh Pemberian Konseling dengan tingkat Kecemasan pada pasien yang menjalani hemodialisis di Kota Medan . *Jurnal Ilmiah Keperawatab Imelda*, 4(1), 52–57.
- Mare, A. (2019). Art Therapy On Anxiety and Depression in Post-Stroke Patients. *Proceeding of the International Nursing Conferen e on Chronic Disease Management*, 8, 223–227.
- Rezazadeh, H., Froutan, R., Abadi, A. A., Mazloun, S. R., & Moghaddam, K. (2020). Effects of art therapy program on anxiety and depression among 6-12-year-old burned children. *Open Access Macedonian Journal of Medical Sciences*, 8(B), 126–132. <https://doi.org/10.3889/oamjms.2020.3916>
- Ritianingsih, N, Nurhayati, F. (2019). Pengaruh Penerapan Teknik Konservasi Energi Dengan Pemberdayaan Diri Terhadap Kualitas Hidup Pasien Gagal Ginjal Kronik. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*, 9(3), 219–224. <https://doi.org/10.32583/pskm.9.3.2019.119-224>
- Sandra. (2012). Gambaran Stres Pada Pasien Gagal Ginjal Terminal yang Menjalani Terapi Hemodialisa di Rumah Sakit Umum Daerah Arifin Achmad Pekanbaru. *Gambaran Stres Pada Pasien Gagal Ginjal Terminal Yang Menjalani Terapi Hemodialisa Di Rumah Sakit Umum Daerah Arifin Achmad Pekan Baru*, 2(2), 99–108. ejournal.unri.ac.id/index.php/JNI/article/download/2019/1984
- Sarah C. Slayton MA, A.-B., Jeanne D'Archer MA, A.-B., & Frances Kaplan DA, A.-B. (2011). Outcome Studies on the Efficacy of Art Therapy: A Review of Findings. *Art Therapy*, 27(3), 108–118. <http://www.tandfonline.com/doi/abs/10.1080/07421656.2010.10129660>
- Sarah., Hasanat, Nida Ul. (2010). Kajian Teoritis Pengaruh Art Therapy Dalam Mengurangi Kecemasan Pada Penderita Kanker . *Buletin Psikologi*, 18(1), 29–35. <https://doi.org/10.22146/bps.11535>
- Visnola, D., Sprudša, D., Arija Baķe, M., & Piķe, A. (2010). Effect of art therapy on stress and anxiety of employees. *Proceedings of the Latvian Academy of Sciences, Section B: Natural, Exact, and Applied Sciences*, 64(1), 85–91. <https://doi.org/10.2478/v10046->

010-0020-y