

**THE EFFECT OF A GRATITUDE JOURNAL ON DEPRESSION IN  
PATIENTS UNDERGOING HEMODIALYSIS AT ARIFIN ACHMAD  
REGIONAL HOSPITAL, RIAU PROVINCE**

**Restiella Surya Ningsih<sup>\*</sup>, Emul Yani, Dendy Kharisna, Yeni Devita, M.Zul Irfan**

<sup>a</sup> Program Study Of Nursing, Faculty Of Nursing, Institut Payung Negeri Pekanbaru,  
Indonesia.

**\*Corresponding author:** [restiellasuryaningsih@email.com](mailto:restiellasuryaningsih@email.com)

**Abstract**

Patients with chronic renal failure undergoing hemodialysis often experience depression due to physical limitations, changes in self-perception and dependence on long-term medical procedures, untreated depression will have an impact on patient quality of life and compliance with treatment. One psychosocial intervention that improves emotional well-being and reduces depression scale is Gratitude Journal. This study aims to analyze the effect of gratitude journal in reducing the level of depression in patients undergoing hemodialysis at Arifin Achmad Hospital, Riau Province. This type of research is a quantitative study with a Quasy Experiment design with a pre test and post test approach without a control group. The sample of this study was 41 patients undergoing hemodialysis selected by purposive sampling by observing the inclusion and exclusion criteria. The intervention in the form of gratitude journal writing activities was carried out once a day for five consecutive days. The level of depression was measured using the Back Depression Inventory (BDI- II) questionnaire to measure depression scale. Data were analyzed univariately and bivariate data were tested with the Wilcoxon signed rank statistical test. The results of the statistical test showed that there was a difference in depression scale scores before and after writing a gratitude journal with a value of  $Z = -5.593$  and  $p\text{-value} = <0.001$  which means less than 0.05 which means  $H_0$  is rejected, so it can be concluded that there is an effect on the application of gratitude journal in reducing the level of depression in patients undergoing hemodialysis, there is a difference in depression scores before and after being given the gratitude journal intervention. It is hoped that the results of this study can be a reference for respondents to use Gratitude Journal writing therapy to reduce depression in patients undergoing hemodialysis.

**Keyword:** Gratitude Journal, Depression, hemodialysis, chronic kidney failure

**INTRODUCTION**

According to the 2023 Global Kidney Health Atlas published by the International Society of Nephrology (ISN), it is estimated that around 850 million people worldwide suffer from chronic kidney disease (CKD). This problem affects individuals of all ages, with disadvantaged populations being more severely impacted. Patients with chronic kidney disease require special management through renal replacement therapy. This therapy consists of two main options: dialysis and kidney transplantation. Meanwhile, hemodialysis has been proven effective in prolonging the life expectancy of patients with chronic kidney failure compared to those who do not undergo kidney transplantation (Simanjuntak et al., 2017)

In Indonesia, based on the 2023 Indonesian Health Survey (Survei Kesehatan Indonesia/SKI), the prevalence of chronic kidney disease (CKD) reached 0.22% of the total population of 277,534,122 people, which is equivalent to approximately 638,178 individuals. The provinces with the highest prevalence were Lampung (0.30%), North Sulawesi (0.29%),

and East Nusa Tenggara (0.28%) (Tonelli et al., 2020). In addition to physical challenges, patients with CKD also face significant psychological burdens. Approximately 20–30% of CKD patients are reported to experience depression, and even without an official diagnosis, many of them exhibit significant depressive symptoms.(SKI, 2023)

Based on the increasing number of patients with chronic kidney disease (CKD), nurses need to understand the psychological condition of patients with CKD. Approximately 20–30% of patients with chronic kidney disease experience depression. Even when not officially diagnosed with depression, CKD patients often report significant depressive symptoms. This is because chronic kidney disease can lead to depression, which may become a serious problem that not only worsens their medical condition but also affects their overall quality of life. Disturbances in emotional and mental well-being can exacerbate physical symptoms, such as fatigue, and reduce motivation to undergo essential treatments such as dialysis. Patients with depression often lose hope and interest in self-care, which can increase the risk of hospitalization and even lead to discontinuation of dialysis therapy (Hermawati et al., 2022). Previous research conducted by Vasilopoulou showed that 47.8% of patients undergoing hemodialysis experienced high levels of stress, while 38.2% of them had high levels of depression.(Diyah & Ilham, 2020)

Depression also worsens kidney disease and increases the risk of other complications. A study conducted in India showed that patients with chronic kidney disease who experienced depression had a greater level of functional decline compared to patients without depression. (Asli et al., 2021)

Depression is one of the most common mental health disorders worldwide, including among individuals with chronic illnesses and older adults. This condition not only affects quality of life but also worsens physical health and prolongs the duration of treatment. Therefore, the role of nurses in the management of depression is very important, especially since they often serve as the first point of contact for patients within the nursing care system. (Suryakusuma et al., 2022)

Nurses play an important role in the early identification, intervention, and care of patients with depression. In addition to providing emotional support, nurses are responsible for ensuring patients' adherence to treatment, delivering health education, and monitoring signs and symptoms of depression. Nurse involvement in collaborative care models, such as the role of a care manager, can significantly improve treatment outcomes for patients with depression, including better symptom monitoring, increased patient motivation, and improved adherence to care plans.(Adams, 2019)

One non-medical approach in the management of depression that has recently gained attention is the Gratitude Journal intervention. A Gratitude Journal is an activity in which individuals actively record things they are grateful for each day, helping to shift their focus from the negative aspects of life to more positive ones (Fekete & Deichert, 2022). This activity is simple, can be performed by anyone, does not require high cognitive effort, and is flexible to carry out at any time and in any place. By practicing gratitude through journaling, individuals are expected to enhance positive emotions, reduce negative symptoms such as stress and depression, and overall support their mental and emotional well-being.(Sucitra et al., 2019) The Gratitude Journal is classified as a non-pharmacological psychosocial intervention that focuses on managing patients' mental and emotional well-being. This approach uses cognitive-based strategies to help individuals focus on positive aspects of their lives, thereby potentially reducing depressive symptoms and improving psychological well-being without involving the use of medications.(Junior & Wardani, 2022)

A study found that gratitude training was effective in reducing levels of depression among patients with chronic kidney disease undergoing hemodialysis therapy (Goh & Griva, 2018). A study by Baransano et al. (2023) showed that 52 participants (91%) had normal levels of depression, 3 participants (5%) experienced mild depression, and 2 participants (4%) experienced moderate depression. Consistently, writing a Gratitude Journal was associated with improvements in psychological well-being, including increased happiness and life satisfaction, as well as reduced symptoms of depression and anxiety (Baransano, Ivanna Femi, 2023). A meta-analysis conducted by Kirca et al. (2023) found that, compared to neutral or no-intervention groups, interventions centered on gratitude expression (such as through gratitude journaling) significantly increase positive emotions, life satisfaction, and general happiness (Kirca et al., 2023). Furthermore, research conducted by Tan et al. (2021) indicates that gratitude journaling can reduce psychological distress and improve quality of life in patients with other chronic illnesses, such as advanced cancer, which shares a similar psychological burden with chronic kidney failure patients (Tan et al., 2021).

Based on a preliminary study conducted by the researcher on November 7, 2024, involving brief interviews with seven patients with chronic kidney failure undergoing hemodialysis in the dialysis unit of RSUD Arifin Achmad, Riau Province, the data revealed that four patients did not experience depression, while three patients did.

Based on the background above, the author is interested in conducting a study on the effectiveness of gratitude journaling in supporting nursing efforts to reduce depression among chronic kidney failure patients undergoing hemodialysis in the dialysis unit of RSUD Arifin Achmad, Riau Province.

## RESEARCH METHODS

The type of research used is quantitative research with a quasi-experimental method, specifically a pre-post test design without a control group. This study aims to analyze the influence of gratitude journaling in reducing depression levels among patients undergoing hemodialysis at RSUD Arifin Achmad, Riau Province. Measurements were conducted on respondents before and after the treatment was administered, resulting in two sets of measurements (Pre-Test and Post-Test).

This study used a quasi-experimental one-group pretest–posttest design. A total of 41 patients undergoing hemodialysis participated in this research. Each patient was asked to write a Gratitude Journal once per day for seven consecutive days, focusing on positive aspects or experiences in their life. Depression levels were measured using the Beck Depression Inventory before and after the intervention. Data were analyzed using the Wilcoxon Signed Rank Test. This study utilizes a pre-existing questionnaire previously used by Sucitra et al. (2019) (Sucitra et al., 2019) in their research titled 'Implementation of Gratitude Journaling to Reduce Depressive Symptoms in Cancer Patients: A Study with Ecological Momentary Assessment,' which is a widely used measurement tool for assessing the severity of depressive symptoms in individuals.

## RESEARCH RESULTS

The results show that the mean depression score before the intervention was 19.54, and after the intervention it decreased to 10.51. The analysis using the Wilcoxon test obtained a p-value < 0.001, indicating a significant difference between pretest and posttest results. This means that the Gratitude Journal therapy significantly reduced depression levels in hemodialysis patients at Arifin Achmad Hospital.

A. Univariate analysis

1. Respondent Characteristics Data

Univariate analysis is used to descriptively explain each variable studied; thus, general data were obtained, including Age, Gender, Education, and Residence.

Table 1. Respondent Characteristics Data The univariate analysis data regarding respondent characteristics can be seen as follows:

No	Karakteristik	Frekuensi (n)	Persentase (%)
1	<b>Usia</b>		
	Dewasa Awal (26-35)	1	2,4
	Dewasa Akhir (36-45)	12	29,3
	Lansia Awal (46-55)	28	68,3
	<b>Total</b>	<b>41</b>	<b>100</b>
2	<b>Jenis Kelamin</b>		
	Laki-laki	24	58,5
	Perempuan	17	41,5
	<b>Total</b>	<b>41</b>	<b>100</b>
3	<b>Pendidikan</b>		
	Tidak Tamat SD	1	2,4
	Tamat SD	3	7,3
	SMP	6	14,6
	SMA	30	73,2
	Perguruan Tinggi	1	2,4
	<b>Total</b>	<b>41</b>	<b>100</b>
4	<b>Tempat Tinggal</b>		
	Bersama Keluarga	37	90,2
	Terpisah Masih Dalam Satu Kota	4	9,8
	<b>Total</b>	<b>41</b>	<b>100</b>

*Sumber: Analisa data primer, 2024*

Table 1 shows that among the 41 respondents, more than half (68.3%) fall into the early elderly category (46-55 years old), and more than half (58.5%) are male. Regarding education, more than half of the respondents (73.2%) have a high school education, and nearly all respondents (90.2%) live with their families.

2. Pre-test and Post-test Questionnaire Data

Table 2. Depression Score

No	Variabel	Mean	Min	Max	Std.Devitation
1.	Pre-Test	19,54	15	27	3,241
2.	Post-Test	10,51	7	15	1,832

*Sumber : Analisis Data Primer 2024*

Table 2 shows that the mean depression score before the intervention was 19.54, which then decreased to a mean score of 10.51 after the intervention. This indicates that the mean score of The Beck Depression Inventory (BDI-II) before the respondents received the Gratitude Journal intervention was higher than the mean score after the respondents were provided with the Gratitude Journal education.

B. Bivariate Analysis

Bivariate analysis was conducted to determine whether the implementation of gratitude journaling is effective in reducing depression levels among patients undergoing hemodialysis at RSUD Arifin Achmad, Riau Province. The results of the paired t-test showed a significant difference in The Beck Depression Inventory (BDI-II) scores before and after the gratitude journal intervention, with a p-value of <math><0.001</math> (

Table 3. Depression Level

Variable	N	Mean	P value
Pre-Test Post-Test	41	19,54 10,51	<0,001

Sumber: *Analisis Data Primer 2024*

Table 3 shows that the mean depression level before the gratitude journal intervention was 19.54. After the intervention, the mean score decreased to 10.51, indicating a reduction in depression scales among patients undergoing hemodialysis. Statistical analysis using the Wilcoxon signed-rank test yielded a Z-value of -5.593 with a significance value (Asymp. Sig. 2-tailed) of <0.001. Since the P-value is <0.001 ( $p < 0.05$ ), the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. This confirms that the implementation of gratitude journaling has a significant effect on reducing depression levels among hemodialysis patients at RSUD Arifin Achmad, Riau Province.

## DISCUSSION

The research findings show that most respondents (71.9%) experienced mild constipation post-chemotherapy. This aligns with other studies; for instance, a study by Zahrawaani et al. [9] found that the majority of cancer patients experienced mild constipation (60.3%), and Bulut [10] found that 70% of children receiving chemotherapy experienced constipation. Mild constipation may be mitigated by parental actions such as increasing fiber intake, giving laxatives [11], or increasing water intake [12].

Constipation in pediatric cancer patients is often a consequence of the chemotherapy itself, particularly the use of neurotoxic drugs like vincristine (a vinca alkaloid) which impair intestinal nerve and smooth muscle coordination [13, 14]. Chemotherapy agents such as cisplatin and vinca alkaloids can significantly increase the risk of gastrointestinal side effects, including constipation, in up to 80–90% of patients [15]. Other contributing factors include dehydration and dietary changes during therapy [13]. Furthermore, the co-administration of opioids and antiemetics as part of the cancer pain and symptom management protocol exacerbates the issue [7].

The prevalence of *mild* constipation (71.9%) suggests that while constipation is a highly frequent problem, for the majority, its severity is not maximal. This might indicate that current preventative measures (like encouraging hydration and fiber intake, as noted in the findings) are somewhat effective in managing the severity, preventing a shift to severe constipation. However, the high incidence of constipation overall highlights the critical need for continued vigilance and proactive management. Constipation causes significant physical discomfort, including bloating and abdominal pain, which adds to the suffering of children already undergoing intense treatment [16].

## CONCLUSION

Based on the research results, the following conclusions can be drawn: The research results show that the average Beck Depression Inventory (BDI-II) score before the intervention was 19.54. Following the intervention, the research results show that the average BDI-II score decreased to 10.51. The study demonstrates a significant reduction in BDI-II scores of 30.12%. The score dropped from 19.54 pre-intervention to 10.51 post-intervention, representing a total decrease of 30.12%. Based on the statistical analysis, a p-value of <0.001 was obtained, which

is lower than the 0.05 significance level. Therefore, it can be concluded that H<sub>0</sub> is rejected, meaning that the implementation of gratitude journaling has a significant effect on reducing depression levels.

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