

The Effectiveness of Discharge Planning Implementation on the Quality of Life of Post Opname Patients with Heart Failure at Hospital

Aprin Rusmawati^{1*}, Alfian Fawzi², Nisa Himmatul Faizah³

^{1,2,3} Department of Nursing, Institut Ilmu Kesehatan STRADA Indonesia, Kediri, Indonesia

*Corresponding author: akbaraprin@gmail.com

ABSTRACT

Background: Heart failure is a disease with a high rehospitalization rate due to patients not fulfilling recommended therapy, for example, breaking a diet, doing excessive physical activity and lack of understanding during discharge planning. This causes a decrease in the quality of life after patient is discharged.

Purpose: This research aims to determine the effectiveness of discharge planning implementation on the quality of life of post-opname patients with heart failure at Bhayangkara Hospital, Kediri City.

Method: The type of research used is quantitative research with a descriptive cross-sectional study design. The number of samples in this study were 31 respondents with accidental sampling technique.

Results: The results of the non-parametric Spearman rank correlation test analysis obtained a value of $p = 0.022$ ($p < 0.05$) and a correlation coefficient of 0.411 which is moderate and has a positive direction. This shows that there is a positive relationship between the effectiveness of implementing Discharge Planning on the quality of life of post-hospitalized patients with heart failure at Bhayangkara Hospital, Kediri City.

Conclusion: Discharge Planning given to patients with heart failure at Bhayangkara Hospital, Kediri City is not yet effective and needs to be improved. However, the majority of respondents have a good quality of life where respondents experience an increase in socialization, psychology, but still experience physical discomfort.

Keywords: discharge planning, heart failure, quality of life

Received February 10, 2024; Revised March 12, 2024; Accepted April 3, 2024

DOI: <https://doi.org/10.30994/jnp.v7i2.593>



The Journal of Nursing Practice, its website, and the articles published there in are licensed under a Creative Commons Attribution-Non Commercial-ShareAlike 4.0 International License.

BACKGROUND

In Indonesia, cardiovascular disease is the second leading cause of morbidity and death, responsible for a third of all deaths in Indonesia (World Health Organization, 2018). One of the most common cardiovascular diseases worldwide and resulting in high mortality, morbidity and financial impact, especially for the elderly, is heart failure (Prihatiningsih & Sudyasih, 2018). According to (Mahanani, 2017), heart failure is a condition in which the heart fails to pump blood to meet the needs of the body's cells for adequate nutrition and oxygen. Meanwhile, according to (Astuti Purnamawati et al., 2018), heart failure is a chronic phase that can cause functional damage to the heart due to many symptoms. Based on the research of (Rusmawati et al., 2023) when heart disease develops into heart failure reaching the heart failure stage, these patients will experience higher suffering because they have to experience frequent re-hospitalization, swollen leg conditions, shortness of breath, insomnia due to difficulty breathing, difficulty walking and eating due to swelling of the stomach and liver. The more advanced the stage, the other organs such as the liver and kidneys will have a lack of blood supply due to the weak heart pump.

Heart disease is the cause of death for 17.5 million people (31%) of the 58 million deaths in the world. In the United States heart failure occurs almost 550,000 cases per year. Meanwhile, in developing countries there are 400,000 to 700,000 cases per year (Ong et al., 2016). In Asia, heart failure ranks highest in death, which is around 712,000 people, while Southeast Asia itself has the highest death rate due to heart disease in the Philippines, while Indonesia ranks second with a total of 229,696 (Damasceno, 2016). Based on data from the Indonesian Ministry of Health's Basic Health Research (Kusuma Negara & Negara, 2018), the prevalence of heart failure in Indonesia based on a doctor's diagnosis is estimated at 1.5% or an estimated 29,500 people. This figure has increased when compared to RISKESDAS data 2013 the proportion of heart failure patients who have ever been diagnosed by a doctor is 0.5%. East Java Province has the highest rate of heart failure, namely 54,826 people (0.19%). Heart disease is the number one cause of death in Indonesia. The results of the initial data acquisition from the medical records of the Bhayangkara Hospital, Kediri City, show that the number of inpatients with a diagnosis of heart failure from September 2021 - October 2022 was 368 patients.

Even though pharmacological and medical management has improved rapidly, the death rate due to heart failure remains high, reaching 50% within 5 years of diagnosis (Ong et al., 2016). This is in line with research by (Sutrisno Alfian, 2018) which states that the life expectancy of heart failure patients is still very low, namely 17-45% of heart failure patients who are admitted to hospital will experience death within a year after being treated, and most die within 5 next year. In fact, according to (Zulmi, 2018), the inability of heart failure patients to adapt to their disease, including early recognition of disease symptoms (such as shortness of breath, activity intolerance, and fatigue) can affect the quality of life they live every day. Heart failure patients will experience limitations in carrying out daily activities so that patients become very vulnerable to experiencing depression, stress, anxiety, and find it difficult to control their own emotions. Patients also think about the cost of treatment, the prognosis of the disease, and the length of recovery, which can cause the quality of life of heart failure patients to decrease (Astuti Purnamawati et al., 2018).

Heart failure sufferers are often re-admitted to hospital due to recurrence. Most heart failure relapses occur because sufferers do not meet recommended therapy, for example, violating dietary restrictions, doing excessive physical activity and not being able to recognize symptoms of relapse (Black & Hawks, 2009 in (Febtrina, 2017). Meanwhile, according to Gheorghiade et al (2013) in (Sitompul et al., 2020) the rehospitalization rate of heart failure patients continues to increase by close to 30% within 60 to 90 days after being

discharged. Factors that affect re-hospitalization are caused by a lack of understanding in discharge planning, self-care, care, and medication for heart failure patients.

Providing discharge planning to the patient in question is from the time a new patient enters, undergoes treatment and prepares to return home, where the patient's and family's ability to cope with their disease has the potential to reduce the length of stay, the risk of severity and the risk of being readmitted to the hospital.) within 30 days of hospitalization (Ong et al., 2016). Meanwhile, according to (Rapidminer, 2017), discharge planning is the development of a plan that is carried out for patients and families before the patient leaves the hospital with the aim that the patient can achieve optimal health, reduce side effects, and reduce hospital costs.

However, in practice discharge planning is considered less effective. In fact, the lack of implementation of discharge planning can affect various things and increase the risk of rehospitalization. According to (Zhou; et al., 2019), one of the effectiveness of a discharge plan is marked by a decrease in the number of re-patients. A number of studies highlight that effective discharge planning is essential for improving patient health and reducing re-hospitalization. Complete discharge planning will be able to increase patient knowledge, provide systematic follow-up, evaluate the effect of the interventions that have been prepared and help patients to be independent and ready to take care at home Spath, 2003 in (Zhou; et al., 2019).

Based on the results of a preliminary study conducted by (Yancy et al., 2017) concerning the relationship between discharge planning and anxiety levels in heart failure patients in the Emergency Room of the Integrated Heart Center (PJT) Sanglah Hospital, Denpasar, to 31 respondents, it was found that 16 respondents (51.6%) received incomplete discharge planning. It is known that all the respondents who were studied experienced anxiety and the most was mild anxiety, amounting to 27 people (87.1%). The results of the Spearman's-Rho correlation test show that the value of $p = 0.000$, which means that the value of $p < \alpha = 0.05$, which means that there is a relationship between discharge planning and anxiety levels in heart failure patients treated in the PJT Emergency Room at Sanglah Hospital, Denpasar. The weak or not the relationship is seen in the r/C value (correlation coefficient) of 0.373 (37.3%) which indicates that there is a moderate relationship between the administration of Discharge Planning and the level of anxiety in heart failure patients treated in the PJT Emergency Room of Sanglah Hospital, Denpasar, with the direction The relationship shows a negative value, which indicates that there is a correlation/inverse relationship between discharge planning and the level of anxiety in heart failure patients, which means that if heart failure patients get a complete discharge plan, it will reduce the level of anxiety experienced by the patient. From these results it can be concluded that not all discharge planning deliveries are complete due to the large number of patients with various diagnoses of cardiovascular disorders, the lack of staff, and the high routine of officers, so that most patients receive incomplete discharge planning.

From a literature study of 10 articles by (Sitompul et al., 2020) regarding the Literature Review of the Effect of discharge planning on the Quality of Life of Stroke Patients, it is known that good discharge planning and family support will improve the quality of life of stroke patients, including increasing activity, preventing disease complications and patient compliance in taking medication and routinely controlling the disease. Patient behavior can be changed by providing discharge planning, namely through information given to the patient so that it becomes a stimulus that can increase knowledge, influence awareness to behave as expected. Similar research was also expressed by Fox, et al (2013) (Rofi'i, 2022) which stated that there was a significant relationship between discharge planning and a reduction in patient readmission rates within one to 12 months of the patient's discharge index in health services and the patient's quality of life.

Based on the results of a preliminary study conducted by researchers on November 18 2022 by conducting interviews with 10 respondents and direct observations at Bhayangkara Hospital, it was found that the implementation of Discharge Planning was carried out for every patient who was leaving the hospital and was accompanied by their family. However, the implementation of Discharge Planning for these patients is still limited in terms of information, skills in caring for patients at home, and making decisions about patient care. Implementation of Discharge Planning was not carried out since the initial admission of the patient.

Providing effective discharge planning in heart failure patients can improve the quality of life of heart failure patients after discharge from the hospital. This is because in assessing the quality of life of heart failure patients, several parameters are used, among others, the incidence of re-hospitalization, physical activity, anxiety, diet, control, lifestyle, and drug therapy. All components that determine the quality of life of patients with heart failure are included in discharge planning at the hospital.

Based on the description above, the researcher is interested in knowing the Effectiveness of Discharge Planning Implementation on the Quality of Life of Post Hospitalized Patients with Heart Failure. This research aims to determine the effectiveness of discharge planning implementation on the quality of life of post-operative patients with heart failure at Bhayangkara Hospital, Kediri City.

METHOD

This study used a correlational research design with a cross sectional approach. Using accidental sampling technique, a sample of 31 respondents was obtained. The independent variable is discharge planning implementation using a questionnaire from Potter and Perry (2005) and the dependent variable is quality of life using the Minnesota Living Heart Failure Questionnaire (MLHFQ). Data analysis used a non-parametric correlation test with the result that the value of $p = 0.022$ ($p < 0.05$) and the correlation coefficient of 0.411 was moderate and had a positive direction, then H_0 was rejected and H_1 was accepted. This shows that there is a positive relationship between the effectiveness of implementing discharge planning on the quality of life of post-hospital patients with heart failure at Bhayangkara Hospital, Kediri City. This research was carried out on June 16 – June 26 of 2023 at Bhayangkara Hospital, Kediri City and has passed the ethical test (Number: 000215/EC/KEPK/I/06/2023).

RESULTS

Table 1. Distribution of Respondent Characteristics and Variables

Research Result	Frequency (f)	Percent (%)
Gender		
Man	19	61
Woman	12	39
Age		
30-40 years old	4	13
40-50 years old	10	32
50-60 years old	12	39
> 60 years old	5	16
Education History		
Elementary School	9	29
Junior High School	10	32
Senior High School	8	26
Bachelor	3	10
Magister	1	3

Job		
Farmer	3	10
Housewife	7	23
Self-employee	1	3
Private employee	6	19
Government employee	3	10
Army / Police	1	3
Unemployed	10	32
Lama Menderita		
< 5 years	20	65
> 5 years	11	35
Derajat NYHA		
Degree I	9	29
Degree II	12	39
Degree III	10	32
Degree IV	0	0
Jumlah	31	100

Analysis of Research Statistical Test Results Table 3. Spearman's rho test results

Spearman's rho	Sig. (2-tailed)	Correlation Coefficient
Discharge Planning	0,022	0,411
Quality of life		

Based on the results of the non-parametric Spearman rank correlation test analysis, it was found that the value of $p = 0.022$ ($p < 0.05$) and the correlation coefficient was 0.411. Table 4.4 shows that the significant relationship between the implementation of discharge planning and the quality of life of post- hospital patients is $0.022 < 0.05$. The correlation coefficient value of 0.411 is moderate and has a positive direction, which means that the better the effectiveness of implementing discharge planning, the better the quality of life of post-hospital patients with heart failure.

DISCUSSION

The effectiveness of discharge planning implementation of post opname patients with heart failure at bhayangkara hospital, kediri city

The results of this study indicate that almost some respondents rated the implementation of discharge planning as quite good by 14 respondents (45.2%), in the good category by 8 respondents (25.8%), and by the unfavorable category by 9 respondents (29%). Good discharge planning is carried out from the first time you enter the treatment room, during treatment until before discharge. According to Carpenito, discharge planning should begin when the patient enters the hospital. After the assessment is entered, the nurse must analyze the data to identify if the client or family needs additional discharge or referral planning (Carpenito L.J., 2009 in (Rofi'i, 2022)).

As many as 14 respondents (45.2%) considered that the implementation of discharge planning at Bhayangkara Hospital, Kediri City was quite good in the aspect of the nurse examining the moment the patient came to the inpatient room, the nurse informed the actions to be carried out, the nurse explained to the patient and the family about the medicines given, the nurse explains to the patient and family about foods that may be consumed and avoided, and the nurse explains the preparations and needs for going home (control, home transportation, and medicine).

Meanwhile, there were 9 respondents (29%) who rated the implementation of discharge planning at Bhayangkara Hospital in Kediri City unfavorably because the nurses did not check the administration again when they arrived in the room, lack of explanation about signs and symptoms of disease recurrence, explanation of numbers or facilities health center who can be contacted if there is a problem at home, the nurse does not ask about the needs and readiness of the family in caring for the patient at home and is not given an inpatient room orientation to the patient and family.

Based on these results it can be concluded that the implementation of discharge planning at Bhayangkara Hospital, Kediri City still has deficiencies in 2 aspects of discharge planning, namely from the first time you enter the room and during treatment in the room. Meanwhile, aspects leading up to returning home have been carried out effectively. Even though the implementation of discharge planning at Bhayangkara Kediri Hospital was based on SOP (Standard Operating Procedures), there were still points that had not been implemented.

Discharge planning that is not yet optimal has an impact on patients. This impact is an increase in the number of re-admissions and in the end patients will bear the costs of in-patient treatment at the hospital. The condition of patient recurrence or patient re-admission is certainly very detrimental to the patient, their family and also the hospital (Rusmawati et al., 2023).

Heart failure patients who are continuously readmitted or rehospitalized indicate a low quality of life. The role of the nurse as a provider of health services to patients is tasked with providing discharge planning to patients and their families, namely in the form of information about the illness, information about patient care at home, diet arrangements, recurrence, information about telephone numbers and the nearest health facility.

The relationship between release planning and quality of life in Dr.Moch.Anshari Saleh Hospital with spearman entered in the category of very strong / perfect between the independent variables, namely planning discharge to the dependent variable, namely the quality of life in Dr.Moch.Anshari Saleh Hospital Banjarmasin. (Kusuma Negara & Negara, 2018).

Implementation of discharge planning that is less than optimal in patients with heart failure often occurs where the discharge planning process only focuses on documenting before the patient returns home, without collaborating with other health workers in the discharge planning process.

According to researchers, implementing discharge planning in heart failure patients has an important role in patient care at home. The discharge planning provided provides provisions and guidelines for patients and families to maintain the patient's health status after being treated in hospital. Heart failure patients discharged from the hospital need guidance regarding comprehensive self-care and information about their disease.

The effectiveness of implementing discharge planning for heart failure patients which is carried out when the patient first enters the inpatient room, before the day the patient is discharged, and on the day of discharge has a big impact on the patient and family in dealing with recurrence, understanding the patient's needs comprehensively (physical, psychological, social), and reduce the incidence of rehospitalization.

The Quality Of Life Of Post Opname Patients With Heart Failure At Bhayangkara Hospital, Kediri City

The research results showed that the majority of respondents had a good quality of life category, 19 respondents (61.3%), 10 respondents (32.2%) in the quite good category, and 2 respondents (6.5%) in the poor category.

Based on the quality of life questionnaire scores for 31 respondents, it is known that the majority of respondents have a good quality of life, 19 respondents (61.3%). The majority

of respondents who had a quality of life in the good category experienced improvements in socialization and psychology, but still experienced physical discomfort. Meanwhile, as many as 10 respondents (32.2%) had a fairly good quality of life, experiencing discomfort in their physical and psychological conditions, but experienced an increase in socializing. Two respondents (6.5%) who had a quality of life in the poor category experienced discomfort in physical, psychological and social aspects.

Quality of life is defined as a concept designed to assess how the disease affects the patient. The illness experienced by the patient affects the sick individual as a whole, including personality, adaptability, and hope for a healthy life (Cecillia Heni Agustinawati et al., 2022). Meanwhile, according to the World Health Organization (WHO), quality of life is a perfect stage including physical, mental and social well-being dimensions, not just the absence of disease or weakness. The quality of patients with heart failure generally decreases due to limitations in various functions experienced by the patient (Moser & Riegel, (2008) in (Putri, H. W. S. P., & Hudiyawati, 2019). Of the 19 respondents (61.3%) who had a good quality of life category in this study, the results showed that the majority no longer complained of swollen feet, difficulty walking and traveling. However, I still felt tight. Meanwhile, regarding the psychological aspect, the respondent was calm and at peace with his situation. This is in accordance with research conducted by Poor (2016) in (Putri, H. W. S. P., & Hudiyawati, 2019), which states that spiritual well-being influences the quality of life. Heart failure patients will experience limitations in carrying out daily activities so that patients become very vulnerable to experiencing depression, stress, anxiety, and find it difficult to control their own emotions. Patients also think about the cost of treatment, the prognosis of the disease, and the duration of healing so that it can cause the quality of life of heart failure patients to decrease (Astuti Purnamawati et al., 2018)). This statement is in line with the results of this study in which the majority of respondents experienced an increase in anxiety and felt that they were a burden to their families.

The quality of life of patients with heart failure includes several aspects, namely activity level, diet, physical health, lifestyle, emotional, drug therapy, and hospitalization. These aspects are indicators of evaluating the health status of patients with heart failure as well as an assessment of the health services provided by health workers. According to the researchers, although the assessment of quality of life is subjective, in measuring the health condition of patients with heart failure, the concept of quality of life is considered appropriate because it can determine health status comprehensively and determines the success of a therapy. The role of the family in efforts to improve the patient's quality of life also plays an important role in the healing process.

The Effectiveness Of Discharge Planning Implementation On The Quality Of Life Of Post Opname Patients With Heart Failure At Bhayangkara Hospital, Kediri City

The statistical test results in table 2 which contains the results of testing the relationship between the implementation of discharge planning and the quality of life of post-hospital patients with heart failure at Bhayangkara Hospital show that there is a significant relationship. Where the results of the non- parametric Spearman rank correlation test analysis obtained a value of $p = 0.022$ ($p < 0.05$) and a correlation coefficient of 0.411. Table 3 shows that the significant relationship between the implementation of discharge planning and the quality of life of post-hospital patients is $0.022 < 0.05$. The correlation coefficient value of 0.411 is moderate and has a positive direction, which means that the better the effectiveness of implementing discharge planning, the better the quality of life of post-hospital patients with heart failure.

Based on table 2 of the cross tabulation results, it is known that 7 respondents who rated the implementation of discharge planning as quite good also had a quality of life in the good category (22.59%). Meanwhile, 2 respondents (6.5%) rated the implementation of

discharge planning as unfavorable, with a fairly good quality of life category. Even though the quality of life of the majority of respondents was considered good, the implementation of discharge planning at Bhayangkara Hospital, Kediri City for patients with heart failure still needs to be improved.

The statistical test results in table 3 show that the correlation coefficient value of 0.411 is moderate and has a positive direction, which means that the better the effectiveness of the implementation of Discharge Planning, the better the quality of life of post-hospital patients with heart failure. Where the majority of respondents stated that what was taught, given and informed by nurses to respondents could increase the respondent's understanding of the disease they were suffering from. So that the implementation of discharge planning that is effective and according to its purpose is directly proportional to the quality of life.

Providing effective discharge planning for heart failure patients can improve the quality of life of heart failure patients after discharge from the hospital. This is because in assessing the quality of life of heart failure patients several parameters are used, including the incidence of re-hospitalization, physical activity, anxiety, diet, control, lifestyle and drug therapy. All components that determine the quality of life of patients with heart failure are contained in discharge planning at the hospital.

Implementation of discharge planning that is not effective will result in no continuity of care when the patient is at home. This condition can cause the patient's condition to worsen so that the patient returns to the hospital with the same disease or the emergence of more serious disease complications (Rusmawati et al., 2023). Patients with heart failure who are often in and out of the hospital and receive long-term heart failure treatment will have an impact on the patient's quality of life (Zaviera (2007) in (Mahanani, 2017) Based on the results of cross-tabulations conducted by researchers, it was found that respondents with good discharge planning ratings were also accompanied by a good quality of life. This is in line with Almborg's statement (2010) in (Sitompul et al., 2020)), which says that a good quality of life will be created depending on the quality of implementation and care so that the participation of staff is needed. health, in this case a discharge planning that will be carried out by the nurse will involve the patient and family in order to have an understanding of the disease process, know how to handle it and the continuity of care in the rehabilitation and adaptation phase.

According to researchers, implementing effective discharge planning can improve the quality of life of post-hospital patients with heart failure. Implementing discharge planning that pays attention to the flow, principles and objectives of discharge planning can have a positive impact on patients. Some of the positive impacts obtained include post-hospitalization patients and families being able to prepare themselves to continue treatment at home, patients and families being able to understand the signs and symptoms of recurrence as well as the first action or attitude to take, and being a provision for patients and families to maintain health status after discharge from hospital. So based on this, quality of life is not only known to be subjective but in measuring the health condition of patients with heart failure the concept of quality of life is considered appropriate to determine health status comprehensively and determines the success of a therapy.

CONCLUSION

1. Most of the respondents rated the implementation of discharge planning as quite good, with 14 respondents (45.2%).
2. Most of the respondents have a good quality of life category as many as 19 respondents (61.3%).
3. There is a positive relationship between the effectiveness of the implementation of discharge planning on the quality of life of post-hospital patients with heart failure at

Bhayangkara Hospital, Kediri City. Based on the results of the non-parametric Spearman rank correlation test analysis, the value was $p = 0.022$ ($p < 0.05$) and the correlation coefficient was equal to 0.411 which means medium value. Therefore, the hypothesis H_0 is rejected.

ACKNOWLEDGMENT

Bhayangkara Hospital Kediri City and Strada Institute of Health Science.

REFERENCES

- Astuti Purnamawati, D., Arofiati, F., & Relawati, A. (2018). Pengaruh Supportive-Educative System terhadap Kualitas Hidup pada Pasien Gagal Jantung. *Mutiara Medika: Jurnal Kedokteran Dan Kesehatan*, 18(2). <https://doi.org/10.18196/mm.180213>.
- Cecillia Heni Agustinawati, Asnet Leo Bunga, & Indriati Kusumaningsih. (2022). Studi Fenomenologi Peran Perawat pada Pelaksanaan Discharge Planning dalam Asuhan Keperawatan di RS X. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 5(4), 410–420. <https://doi.org/10.56338/mppki.v5i4.2253>.
- Damasceno, A. (2016). Noncommunicable Disease. In *Heart of Africa: Clinical Profile of an Evolving Burden of Heart Disease in Africa*. <https://doi.org/10.1002/9781119097136.part5>.
- Febtrina, R. (2017). Hubungan Gaya Hidup Dengan Kejadian Rawat Ulang. *Jurnal IpteksTerapan*, 4, 331–338.
- Kusuma Negara, C., & Negara, 2018. (2018). THE RELATIONSHIP BETWEEN DISCHARGE PLANNING AND THE QUALITY OF LIFE OF PATIENTS WITH DIABETIC ULCER Institute of Health Science Cahaya Bangsa Banjarmasin Email *: candra14780@yahoo.com. 237–237.
- Mahanani, A. R. (2017). Gambaran Kualitas Hidup Pada Pasien Gagal Jantung Kongestif Di Kota Surakarta. *Universitas Muahmmadiyah Surakarta*, 1–18.
- Ong, M. K., Romano, P. S., Edgington, S., Harriet, U., Auerbach, A. D., Black, J. T., De, T., Escarce, J. J., Evangelista, L. S., Hanna, B., Ganiats, T. G., Greenberg, B. H., & Greenfield, S. (2016). Falta Titulo Do Artigo. *JAMA Internal Medicine*, 176(3), 310–318. <https://doi.org/10.1001/jamainternmed.2015.7712.Effectiveness>.
- Prihatiningsih, D., & Sudyasih, T. (2018). Perawatan Diri Pada Pasien Gagal Jantung. *Jurnal Pendidikan Keperawatan Indonesia*, 4(2). <https://doi.org/10.17509/jpki.v4i2.13443>
- Putri, H. W. S. P., & Hudiyawati, D. (2019). Faktor Faktor Yang Mempengadruhi Kualitas Hidup Pada Penderita Gagal Jantung Di Rsud Sukoharjo. *Universitas Muhammadiyah Surakarta*, 2.
- Rapidminer, D. M. T. D. A. (2017). *Jurnal 10.Pdf* (p. 15).
- Rofi'i, M. (2022). *Discharge Planning Pada Pasien Di Rumah Sakit* (Vol. 1).
- Rusmawati, A., Kristyaningsih, P., & Fawzi, A. (2023). Effectiveness of Audiovisual Animation Education as an Effort to Increase Knowledge To Prevent the Risk of Falling Patients in Hospital. *Open Access Health Scientific Journal*, 4(1), 7–12. <https://doi.org/10.55700/oahsj.v4i1.33>.
- Sitompul, O. H., Faridah, I., & Afyanti, Y. (2020). Literatur Review Pengaruh Discharge Planning dengan Kualitas Hidup Pasien Stroke. *Jurnal Ilmu Kesehatan Indonesia (JIKSI)*, 1(2), 1–6. <https://doi.org/10.57084/jiksi.v1i2.413>.
- Sutrisno Alfian, S. F. (2018). Analysis of chronic kidney diseases patients with CAPD (Continuous Ambulatory Peritoneal Dialysis) and hemodialysis reviewed from kidney function (Ureum And Kreatinin). *Indonesian Journal of Nutritional Epidemiology and Reproductive*, 1(Vol 1 No 3 (2018)), 169–172. <http://ojs.stikesstrada.ac.id/index.php/IJNER/article/view/68>.

- Yancy, C. W., Jessup, M., Bozkurt, B., Butler, J., Casey, D. E., Colvin, M. M., Drazner, M. H., Filippatos, G. S., Fonarow, G. C., Givertz, M. M., Hollenberg, S. M., Lindenfeld, J. A., Masoudi, F. A., McBride, P. E., Peterson, P. N., Stevenson, L. W., & Westlake, C. (2017). 2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of Amer. *Journal of the American College of Cardiology*, 70(6), 776–803. <https://doi.org/10.1016/j.jacc.2017.04.025>.
- Zhou, Z., Li, H., & Jia, Y. (2019). No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析Title. *Sustainability (Switzerland)*, 11(1), 1–14. http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEM_BETUNGAN_TERPUSAT_STRATEGI_MELESTARI.
- Zulmi, A. (2018). Hubungan Dukungan Keluarga Terhadap Kualitas Hidup Pasien Gagal Jantung Kongestif (GJK) di Instalasi Elang RSUP Dr. Kariadi Semarang. Undergraduate Thesis, Universitas Muhammadiyah Semarang, 89(10), 52–57.