



## IMPLEMENTATION OF STRUCTURED DISCHARGE PLANNING FOR EMPOWERMENT AND SELF EFFICACY OF TYPE II DIABETES MELLITUS PATIENTS

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### ABSTRACT

Self-efficacy is a person's belief to take action to achieve a desired goal with his abilities. The achievement of good Self Efficacy in Diabetes Mellitus patients is very dependent on the Discharge Planning provided by health workers. Discharge Planning is a process of assessing, preparing, and coordinating to facilitate the supervision of health services and services before and after returning home. Patients with type II diabetes mellitus who seek treatment in March - August 2021 at Hospital Mardi Waluyo Metro. The design in this study is a pre-experimental approach. The one group pretest-posttest design is an experimental research that uses only one group in principle and no control group using the Wilcoxon Signed Rank Test. Normality test using Shapiro-Wilk. The sampling technique in this study was purposive sampling with a sample size of 30 respondents. The results of the normality Shapiro-Wilk Test on Self Efficacy before and after being given a Discharge Planning Structured obtained  $p = 0.740$ , ( $p < 0.05$ ), so the data is not normal. The results of the Wilcoxon Signed Rank Test obtained a p-value of  $0.000 < 0.05$ . It was concluded that there was an Implementation of Structured Discharge Planning for Empowerment and Self Efficacy on Diabetes Mellitus patients at Mardi Waluyo Metro Hospital in 2021.

Keywords: diabetes mellitus; empowerment; self efficacy; structured discharge planning

### INTRODUCTION

Diabetes Mellitus (DM) is a group of metabolic diseases characterized by hyperglycemia caused by defects in insulin secretion, insulin action, or both. The universal classification consists of type 1 diabetes mellitus or insulin dependent diabetes mellitus (IDDM) and type 2 diabetes mellitus or non insulin dependent diabetes mellitus (NIDDM). Type 2 diabetes occurs because pancreatic cells produce low amounts of insulin or insulin resistance. The number of people with type 1 diabetes is approximately 5-10% and 90-95% of people with type 2 diabetes in the world (American Diabetes Association, 2020).

In the world in 2019, there were 9.3% (463 million people) with Diabetes Mellitus, an estimated 10.2% (578 million) in 2030 and 2045 to 10.9% (700 million) in the world (International Diabetes Federation, 2019). In Indonesia according to RISKESDAS people with Diabetes Mellitus in 2007 with ages 15 years there were 5.7%, 6.9% in 2013, and in 2018 it was 8.5%. The doctor's diagnosis stated that people with Diabetes Mellitus aged 15 years were 2% in 2018 from 1.5% in 2013 (Kshanti et al., 2019). Lampung Province contained 1.4% of people with Diabetes Mellitus in 2018, 0.7% in 2013. Diabetes Mellitus is one of the three most non-communicable diseases at 20.87% (Riskesdas, 2018). Metro City has the largest presentation of Diabetes Mellitus, which is 3.3% (Riskesdas, 2018).

Type 2 diabetes that lasts for years can lead to long-term complications such as eye disease, peripheral neuropathy, and peripheral vascular disease (Smeltzer, 2013). The way to avoid these complications is by implementing DM management, DM patients will comply with DM if they have confidence that by managing DM they are able to control the condition to remain stable, and the costs incurred are more efficient (Rahman, Y, & L, 2017). A person's belief in his ability to exercise control over his own functions is called Self Efficacy (Winahyu & A, 2016).

Someone who has self-efficacy a high and appropriate will try to solve the DM problem he faces, so he can commit to treatment and medication (Deghan, A, & GM, 2017). Achieving good self-efficacy is highly dependent on the management and care as well as the role of health workers, so that patients and families gain an understanding of the DM disease process. Knowing how to handle and continue in the rehabilitation and adaptation phase can be arranged in a Discharge Planning (Almborg, Ulander & Thulin, 2009 in Sihotang, 2015).

The initial study conducted by researchers on March 25, 2021 at the Mardi Waluyo Metro Hospital, there were 262 Diabetes Mellitus patients during the last 3 months. In interviews conducted by researchers, 5 out of 7 patients said they were not sure that managing DM such as doing physical activity, maintaining a healthy body condition, dieting DM, and running according to the treatment program could not help control blood sugar, 2 out of 7 patients said no. believe that doing physical activity and maintaining a healthy body condition can help control blood sugar. Observations made by researchers that nurses who provide Discharge Planning to DM patients in Mardi Waluyo are only carried out for administrative completeness

## **METHOD**

This research is a quantitative study with a design pre-experimental with the approach one group pretest-posttest design. The study was conducted in June-July 2021 at Mardi Waluyo Metro Hospital with a population of 262 patients with type II diabetes mellitus and a sample of 30 respondents used was sampling technique purposive sampling. The Inclusion criteria: Patients with type II diabetes mellitus, diagnosed with DM for 3 years, have diabetic ulcers, hospitalized at Mardi Waluyo Metro Hospital for 4 days, Patients who are willing to become respondents and follow the research process until the end by signing the informed consent. Exclusion Criteria: Patients who cannot read and write. The questionnaire in this study used the Diabetes Management Self Efficacy Scale (DMSES) Questionnaire. Measurement of Self-Efficacy by means of respondents filling out questionnaires before and after giving Discharge Planning. The researcher gave 30 minutes to fill out 20 questions in the questionnaire. The analytical test used includes data normality test, univariate analysis and bivariate analysis using the Wilcoxon sign rank test

## **RESULTS**

Table 1.

**Characteristics of Respondents Based on gender, age, marital status, education and duration of diagnosis of Diabetes Mellitus (n=30)**

Characteristics	f	%
<b>Gender</b>		
Male	10	33.3
Female	20	66.7
<b>Age</b>		
20-24 years	0	0.0
25-49 years	12	40.0
>50 years old	18	60.0
<b>Marital Status</b>		
Married	30	100.0
Not Married	0	0.0
<b>Education</b>		
Elementary Middle School	0	0.0
High School	9	30
College	13	43.3
University	8	26.7
<b>Duration of Diagnosed Diabetes Mellitus</b>		
12 months	7	23.3
13-24 months	9	30.0
25-36 months	14	46.7

Table 1 shows that of the 30 respondents, 20 (66.7%) were female and 10 (33.3%) were male, 18 (60.0%) respondents aged >50 years and 12 (40.0%) 25-49 years, as many as 30 (100.0%) respondents are married, as many as 13 (43.3%) respondents have high school education, 9 (30.0%) junior high schools, and 8 (26.7%) universities High, as many as 14 (46.7%) respondents were diagnosed with 25-36 months, 9 (30.0%) 13-24 months, and 7 (23.3%) 12 months.

**Table 2.**  
**Frequency Distribution of Empowerment & Self Efficacy Before Given to Discharge Planning Is Structured Diabetes Mellitus Patients (n=30)**

Category	f	%
Poor	7	23.3
Enough	20	66.7
Good	3	10.0

Table 2 shows that the Empowerment & Self Efficacy before being given Discharge Planning Structured 20 (66.7%) of respondents have Empowerment & Self Efficacy enough, 7 (23.3%) of respondents had Empowerment & Self Efficacy unfavorable, 3 (10.0%) of respondents have Empowerment & Self Efficacy either

Table 3.

Frequency Distribution of Empowerment & Self Efficacy After Giving Structured Discharge Planning to Diabetes Mellitus Patients (n=30)

Category	f	%
Enough	7	23.3
Good	20	66.7
Very Good	3	10.0

Table 3 shows that Empowerment & Self Efficacy after being given a Discharge Planning Structured 20 (66.7%) respondents have Empowerment & Self Efficacy good, 7 (23.3%) respondents have Empowerment & Self Efficacy sufficient, 3 (10.0%) respondents have Empowerment & Self Efficacy very good.

Table 4. Empowerment and Self Efficacy before and after being given Discharge Planning Structured to Diabetes Mellitus patients (n=30)

Category	N	Mean	SD	p-value
Empowerment & Self-Efficacy before after being given a Discharge Planning Structured to Diabetes Mellitus patients	30	1.87	0.571	0.000
Empowerment & Self-Efficacy after being given Discharge Planning Structured to patients with Diabetes Mellitus	30	2.87	0.571	

Table 4 shows that before giving Discharge Planning it has a mean of 1.87 with a standard deviation of 0.571 and after being given Discharge Planning it has a mean of 2.87 with a standard deviation of 0.571. The difference in the mean before and after treatment was 1.00. Results Wilcoxon Signed Rank Test Empowerment & Self Efficacy before and after being given a Discharge Planning, Structured namely the value of Z calculated -4.817 with a p-value of 0.000 < 0.05, because the p-value is smaller than 0.05, it can be concluded that there is an effect of giving a Discharge Planning Structured with Empowerment & Self Efficacy in Diabetes Mellitus patients at Mardi Waluyo Metro Hospital in 2021,

**DISCUSSION**

**Before being given a Structured Discharge Planning**

The results of the research on univariate analysis based on Empowerment & Self Efficacy before being given a Structured Discharge Planning 20 (66.7%) respondents had sufficient Self Efficacy. Self-efficacy is sufficient for respondents due to lack of exposure to information about the disease they carry which will cause them to be unsure of managing their illness. The lack of information received by patients before the discharge process (Discharge Planning) affects the knowledge and self-efficacy of respondents (Almas, Hamed & Sutan 2008 in Sihotang, 2015). This study is in line with research conducted by Sihotang (2015) which stated that the Empowerment & Self Efficacy of respondents before the intervention was 13 people (56%) in the low category, 12 people (44%) moderate and none had high Self Efficacy. The researcher assumes that the patient's Self Efficacy is obtained from experience, environment and knowledge, including the provision of Discharge Planning that can support and improve care.

**After being given a Structured Discharge Planning**

The results of the research on univariate analysis based on Empowerment & Self Efficacy after being given a Structured Discharge Planning 20 (66.7%) respondents had good Self Efficacy. The importance of providing education in Discharge Planning aims to facilitate individual changes or modifications in treatment so that Self Efficacy becomes good. Knowledge is needed as support in growing self-confidence as well as one's attitudes and behavior every day, so that knowledge can support one's actions (Notoatmodjo, 2007 in Sihotang, 2015). This research is in line with research conducted by Sihotang (2015) which states that after being given a structured discharge planning, respondents showed an increase in Empowerment & Self Efficacy, namely 15 respondents (60%) had moderate Self Efficacy category and 10 people high Self Efficacy (40%) . Researchers assume that by providing a good Discharge Planning, because knowledge will affect the thinking process and will have an influence on the actions to be taken, so that it can lead to good Self Efficacy.

### **Empowerment and Self Efficacy before and after being Given Discharge Planning Structured to Diabetes Mellitus Patients**

The results of the Wilcoxon Signed Rank Test obtained a z value of -4.817 with a p-value of  $0.000 < 0.05$ , because the p-value is smaller than 0.05, it can be concluded that there is an effect of giving Structured Discharge Planning with Self Efficacy on Diabetes Mellitus patients at Mardi Waluyo Metro Hospital in 2021. This study is in line with research conducted by Sihotang (2015), which states that the average comparison of respondents before (pretest) and after (posttest) the provision of a structured Discharge Planning intervention in the advanced service stage is 25.68, with a value of  $t = -13,599$  and  $p = 0.000 < 0.05$ , which means that there is an influence of structured discharge planning to increase self-efficacy in ischemic stroke patients. Research conducted by (Aryani, 2013), says that discharge planning affects the difference in self-efficacy values between the control and intervention groups. Discharge Planning is a process to assess, prepare, and coordinate which is carried out to facilitate the supervision of health and social services before or after returning home to patients (Yuliana, 2013).

One of the effective interventions that can be given to patients with diabetes mellitus is structured discharge planning, structured discharge planning can strengthen teaching to clients by increasing independence, care, knowledge, skills, and attitudes in improving, improving and maintaining health status (Nursalam and Efendi, 2009 in Baker, 2019). The provision of effective discharge planning is the involvement of patients and families, collaboration between the health team and support from patient companions that will affect cognitive abilities in the form of knowledge, motivation, and thinking to take an action. Cognitive ability triggers one's belief in one's abilities, so that it can be used as a basis for taking action in achieving certain desired goals (Ghufron & Risnawita, 2017; Rosya, E., Sesrianty, V., Kairani, 2015), Discharge Planning which Effectively given every day while in the hospital from the patient's first admission until the patient leaves by providing education to the patient and family about the patient's condition, such as when nurses give reports, check vital signs, call nurses, and other treatments (Agency for Health Care). Research and Quality, 2017). An individual's belief in his ability to organize and carry out certain actions so that he can achieve a goal is called Self Efficacy (Avisti, 2013).

Researchers assume that the provision of proper or structured discharge planning will affect cognitive, affective and psychomotor abilities, so that a person has good self-efficacy or confidence in being able to organize and act to achieve certain desired goals. The researcher's

observations during the research were when the respondent had a cooperative intervention, had full attention, followed hospital procedures and followed the course of the study.

## CONCLUSION

Characteristics of respondents based on gender, 20 (66.7%) respondents were female and 10 (33.3%) were male. Characteristics of respondents based on age obtained as many as 18 (60.0%) respondents aged >50 years and 12 (40.0%) 25-49 years. Characteristics of respondents based on marital status as many as 30 (100.0%) respondents were married. Characteristics of respondents based on education as many as 13 (43.3%) respondents had high school education, 9 (30.0%) junior high schools, and 8 (26.7%) universities. Characteristics of respondents based on the duration of diagnosis of Diabetes Mellitus as many as 30 (100.0%) respondents with a duration of diagnosis of Diabetes Mellitus 1-5 years. Self Efficacy before being given a Discharge Planning Structured 20 (66.7%) respondents had Self Efficacy sufficient, 7 (23.3%) respondents had Self Efficacy poor, 3 (10.0%) respondents had Self Efficacy good. Self Efficacy after being given a Discharge Planning Structured 20 (66.7%) respondents have Self Efficacy good, 7 (23.3%) respondents have Self Efficacy sufficient, 3 (10.0%) respondents have Self Efficacy very good. The Wilcoxon Signed Rank Test can be concluded that there is an effect of providing a Discharge Planning Structured with Self Efficacy on Diabetes Mellitus patients at Mardi Waluyo Metro Hospital in 2021

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