

# Comprehension Level of Discharge Planning With Self-Care in Patient With Diabetes Mellitus

1<sup>st</sup> Rosiana Nur Imallah  
*Faculty of Health Sciences*  
*Universitas Aisyiyah Yogyakarta*  
 Yogyakarta, Indonesia  
 roshe\_an@yahoo.co.id

2<sup>nd</sup> Agustina Rahmawati  
*Faculty of Health Sciences*  
*Universitas Aisyiyah Yogyakarta*  
 Yogyakarta, Indonesia  
 line 5: email address

**Abstract**— Self-care in patients with Diabetes Mellitus is one of the attempts to minimize complications. Self-care needs to be taught to patients through discharge planning activities given since the patients enter the hospital until they are ready to do self-care at home. This study employed a correlational design with a cross-sectional time approach. Samples in this study were 57 outpatient respondents in Polyclinic for internal organ disease of PKU Muhammadiyah Bantul Hospital. The utilized measuring instruments were discharge-planning questionnaires and SDSCA modification questionnaires for DM self-care. This research results showed that there was a correlation between the discharge planning comprehension and the self-care level in patients with diabetes mellitus ( $P=0.026$ ).

**Keywords**— *diabetes mellitus, discharge planning, self-care.*

## I. INTRODUCTION

The number of diabetes mellitus clients in the world was about 59 million, and it will increase 2.5 times, reaching 145 million in the year 2030. The effects of the increase in the diabetes mellitus case number are the decrease in life expectancy, the increase in illness rate, and the decrease in life quality [1]. The significant increase in the last ten years also puts diabetes mellitus as the sixth cause of death in the world.

As many as 80% of clients in the world are from developing countries, and Indonesia is one of them [2]. In Indonesia, the number of diabetes mellitus patients has reached 9.1 million people [3]. The high number of incidents puts Indonesia at the fourth rank in the world. The highest diabetes mellitus prevalence is found in the Special Region of Yogyakarta (DIY), with a prevalence value of 2,6% [2]. The diabetes mellitus cases that mostly occur in DIY are type 2 diabetes mellitus, which reached 217 thousand cases in 2014.

Type 2 diabetes mellitus patients have risks of complications that can be life-threatening, which can be minimized by performing the immediate treatment and strict control. The type 2 diabetes mellitus clients must have sufficient knowledge and ability to control their disease by performing a self-care. Self-care describes an individual behavior committed consciously, universally, and confined to oneself [4].

Increased self-care activities will affect the improvement of diabetes mellitus patient's health status [5]. Nevertheless,

in reality, most of the patients have not complied with performing the diabetes mellitus self-care. One factor affecting the self-care behavior is knowledge of diabetes mellitus and its treatment that can be administered in patients' discharge planning activities [6].

Discharge planning is one indicator of sustainable nursing services because it can improve the health status of patients. Discharge planning focuses on patient care by involving health professionals [7]. It requires information and collaboration between healthcare personnel, patients, and patients' family [8]. The phenomenon that occurs today is that the patient does not comply with the diabetes mellitus self-care because the discharge planning has not been executed optimally.

## II. DIABETES MELLITUS AND DISCHARGE PLANNING

### A. Diabetes Mellitus Self Care

Self-Care is an individual task about proper behavior to maintain health, to prevent complications, to rebuild health, and to keep health in good condition [9]. In diabetes mellitus clients, self-care is an action taken by an individual to control the diabetes mellitus disease, which includes treatment and prevention of complications [10].

The diabetes mellitus disease management aims to normalize blood sugar, fat, and insulin in the blood and to provide treatment for other chronic diseases. The main pillars in type 2 diabetes mellitus management include [6]: diet management, Physical Exercise (Sports), Blood Sugar Monitoring, Foot care and treatments.

### B. Discharge Planning

Discharge Planning is a process of preparing clients to leave one level of care to another level within or outside the current health care institution that needs to be organized when the patient is admitted to the hospital [11].

The purpose of discharge planning is that patients receive care according to their needs, continuity of service can be maintained, patients understand or comply with care and increase patient independence, patients are able to make a right decision, a safe patient discharge, improve patient's life quality and satisfaction as well as optimize support systems/involvement in patients' family empowerment [12].

**III. RESEARCH METHOD**

This study employed a correlational design with a cross-sectional time approach. The utilized measuring instruments were a questionnaire about discharge planning and an SDSCA modification questionnaire. The sampling technique employed consecutive sampling. The inclusion criteria in this study were willing to be respondents, patients with type 2 diabetes mellitus, hospitalized due to diabetes mellitus at least 3 months ago, did not experience hearing impairment.

**IV. RESULT AND DISCUSSION**

*A. Discharge Planning Comprehension Level*

TABLE I. DISCHARGE PLANNING COMPREHENSION LEVEL

Criteria	Amount	Percentage
Good	28	51,9
Enough	11	20,4
Less	15	27,8

Patients' comprehension level about discharge planning provided by nurses is an essential thing that can affect patients' health behavior. The results showed that the comprehension level of discharge planning was mostly in the good category (51,9%).

One of the things affecting discharge planning comprehension in a good category was one's experience level toward one's health. Study results showed that most respondents had diabetes mellitus for more than 5 years (53.7%) Someone who has a more extensive illness experience will have more knowledge of the pain they suffer so that the comprehension level tends to be better [13]. It is supported by research by [14] which states that the long-standing factor of diabetes mellitus will affect the patient's comprehension of the disease and diabetes mellitus complications.

The level of patient understanding of discharge planning is also influenced by the nurse's ability to provide health education since the patient is hospitalized until the patient returns home. Clarity of communication and information provided by nurses will affect the level of knowledge received by patients so that patients will more easily understand about health messages delivered. This is supported by research conducted by [15] which states that the role of the nurse educator is very important and influences the understanding and behavior of patient health compliance.

Implementation of discharge planning in accordance with SOP also becomes one of the factors that influence the level of understanding of patients. Compliance nurses carry out discharge planning will provide benefits to patients, namely patients will more easily understand about the care process that must be undertaken [16]. [17] research results state that the nurse's compliance behavior in carrying out discharge planning is good so that it can improve patient health understanding and behavior.

*B. Self-Care for Diabetes Mellitus Patients*

TABLE II. SELF-CARE FOR DIABETES MELLITUS

Criteria	Amount	Percentage
Hight	28	51,9
Low	26	48,1

Self-care measurement in 51.9% of diabetes mellitus patients can be included in the high category, one of which is because most diabetes mellitus patients are women in which women have a higher interest in paying attention to their health status. This affects the implementation of good self-care activities because of the desire to achieve better health status. The results of [18] research show that women are more active in managing diabetes mellitus in their daily lives while men tend to be less interested and skilled in carrying out diabetes mellitus management.

Self-care activities in this study include managing diet, physical exercise, monitoring blood sugar, medication and foot care. Low diabetes mellitus patient self-care can be found in physical exercise, blood sugar monitoring, medication and foot care. This is indicated by the existence of a minimum score (0) on the item activity. One of the factors causing low self-care is the low level of diabetes mellitus patient knowledge related to self-care. This is supported by [8] which states that the lack of understanding of patients about the benefits of the diabetes mellitus diet. In addition, physical activity and treatment causes patient non-compliance in undergoing therapy. Good knowledge in diabetes mellitus patients increases patient understanding in managing their illness and realizes the importance of self-care as an effort to prevent complications.

*C. Relationship Between The Level of Understanding Discharge Planning with Self Care Diabetes Mellitus*

TABLE III. UNDERSTANDING DISCHARGE PLANNING WITH SELF-CARE DM

Understanding Discharge Planning	Selfcare				P value
	Low		Hight		
	f	%	0,0 26f	%	
Good	18	64,3	28	35,7	0,026
Enough	2	18,2	9	81,8	
Less	6	40,0	9	60,0	

Diabetes mellitus self-care is a person's effort to maintain health and prevent complications from diabetes mellitus disease [9]. One of the factors that influence diabetes mellitus self-care is the increase in patient compliance with discharge planning [6]. The results show that there is a relationship between understanding discharge planning and the level of self-care in diabetes mellitus patients.

Discharge planning is a continuous nursing process that is carried out from the time the patient enters to prepare the patient for home health care [12]. Provision of discharge planning in diabetes mellitus patients must be carried out effectively to increase patient understanding that affects diabetes mellitus self-care behavior. This is supported by [19] research that the provision of diabetes mellitus

discharge planning can increase knowledge and diabetes mellitus self-care compliance.

Giving knowledge about diabetes mellitus self-care effectively will shape perceptions and subsequently affect patient understanding. This understanding will form positive behavior in conducting self-care diabetes mellitus. This is in line with [20]. research which states that diabetes mellitus patients who get education about the disease and how the treatment will show positive results in diabetes mellitus self-care behavior so as to reduce the number of re-admissions and complications experienced by patients.

The results of further analysis show that the relationship between understanding discharge planning and diabetes mellitus self-care compliance is also influenced by self-efficacy factors. Someone with good self-efficacy will tend to easily understand the information obtained and will implement the information in good behavior. This is supported by [21]. that self-efficacy influences a person to think, motivate himself and make health decisions by behaving obediently to conduct diabetes mellitus self-care which includes diet management, physical exercise, blood sugar monitoring, medication and diabetes mellitus foot care.

## V. CONCLUSION

The results showed that the level of understanding of patient discharge planning was in the good category (51.9%); self-care of DM patients was in the high category (51.9%), and there was a relationship between the level of understanding of discharge planning with self-care in DM patients ( $p = 0.026$ ).

## REFERENCES

- [1] Nwankwo, C.H., Nandy, B. & Nwankwo, B.O, Factor Influencing disease self-management among veterans with diabetes and poor glycemic control.,vol 22. Society of General Internal Medicine, 2010, pp. 442-446.
- [2] WHO. (2013). <http://www.who.int/mediacentre/factsheets/fs/312/en/> received 22 September 2018.
- [3] PERKENI, Konsensus Pengelolaan dan Pencegahan Diabetes Mellitus Tipe 2 di Indonesia. Perkumpulan Endokrinologi Indonesia, 2011.
- [4] Bertalina & Purnama, Hubungan lama sakit, pengetahuan, motivasi pasien dan dukungan keluarga dengan kepatuhan diet pasien diabetes mellitus.,vol VII, Jurnal Kesehatan, 2016, pp 329-340.
- [5] Xu Yin, Toobert, D., Savage, C., Pan, W., & Whitmer, K, Factor influencing diabetes self-management in Chinese people with type 2 diabetes., vol 31, Research in Nursing & Health, 2008, pp 613-625.
- [6] Kusniawati, Analisis Faktor yang Berkontribusi Terhadap Self Care Diabetes pada Klien Diabetes Mellitus Tipe 2 di RSUD Tangerang. Tesis. Tidak dipublikasikan. FIK.UJ, 2011.
- [7] Isworo, A., Saryono, Hubungan Depresi dan Dukungan Keluarga Terhadap Kadar Gula Darah pada Pasien Diabetes Mellitus Tipe 2 Di RSUD Sragen., vol 5, Jurnal Keperawatan Soedirman, 2010.
- [8] Husnah, Zufry, H., Maisura, Hubungan pengetahuan dengan kepatuhan pasien diabetes melitus dalam menjalani terapi di RSUD Dr. Zainoel Abidin Banda Aceh.,vol 14, Jurnal Kedokteran Syiah Kuala, 2014.
- [9] Abraham, Mehammedsrage, Self-Care in Type 2 Diabetes: A Systematic Literature Review on Factors Contributing to Self-Care among Type 2 Diabetes Mellitus Patients, Tesis. Linnaeus University, 2011.
- [10] Anggina, L.L., Hamzah, H., Pandhit, Hubungan antara Dukungan Sosial Keluarga dengan Kepatuhan Pasien Diabetes Mellitus dalam Melaksanakan Program Diet di Poli Penyakit Dalam RSUD Cibabat Cimahi. Jurnal Penelitian Kesehatan Suara Forikes, 2010.
- [11] Kozier, B., Erb, G., Berman, A., Snyder, A. J, Buku Ajar Fundamental Keperawatan: Konsep, Proses, dan Praktik (Karyuni, P. E., Yulianti, D., Yuningsih, Y., Lusyana, A., Eka, W.). Jakarta: Penerbit Buku Kedokteran, EGC, 2010
- [12] KARS, Standar Nasional Akreditasi Rumah Sakit, Jakarta: KARS, 2017.
- [13] Notoatmodjo, S, Promosi Kesehatan Teori dan Aplikasi, Jakarta: Rineka Cipta, 2010.
- [14] Laili, F., Udiyono, A & Saraswati, L.D, Hubungan faktor lama menderita DM dan tingkat pengetahuan dengan distress diabetes pada penderita diabetes mellitus tipe 2 tahun 2017, vol 18. Media Kesehatan Masyarakat Indonesia, 2019.
- [15] Pertiwati, E, Peran educator perawat dengan pelaksanaan discharge planning pada pasien di Ruang Tulip IC RSUD Banjarmasin., vol 4, Dunia Keperawatan, 2016, pp 82-87.
- [16] Pemila, U. (2009). Konsep Discharge Planning. Diakses dalam <http://www.fik.ui.ac.id> received 28 September 2018.
- [17] Darliana, D. Discharge planning dalam Keperawatan.,vol 3, Idea Nursing Journal, 2012.
- [18] Mathew, R., Gucciardi, E., Melo, M.D. & Barata, P, Self-Managemen Experiences Among Men and Women With Type 2. Diabetes Mellitus: A Qualitative Analysis. BMC Family Practice, 2012, pp 1-12.
- [19] Mangemba, D., Elly, L., Sjattar & Kadir, A.R, Pengaruh discharge planning terhadap self care behavior pasien diabetes mellitus tipe II di Rumah sakit Bayangkara Makassar.,vol 11, Jurnal Ilmu Kesehatan Diagnosis, 2017.
- [20] Fahra, R. U., Widayati, N & Sutawardana, J. H, Hubungan peran perawat sebagai educator dengan perawatan diri pasien diabetes mellitus tipe 2 di poli penyakit dalam Rumah Sakit Bina Sehat Jember., vol 2, NurseLine Journal, 2017.
- [21] Putra, P. W & Suari, K.P, Hubungan self efficacy dan dukungan social terhadap self care management pasien diabetes mellitus tipe II. Vol 3, Indonesia jurnal Perawat, 2018.