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The Role Of Family Support And Self-Efficacy On Self-Care Behavior In The Elderly With Type 2 Diabetes

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A B S T R A C T

Diabetic self-care is an effort to control type 2 diabetes. Family support and self-efficacy are need for the elderly with type 2 diabetes mellitus to increase independence in managing their disease. This study investigates the correlation between family support and self-efficacy with self-care behavior in the elderly with type 2 diabetes. This study was a correlational analysis using a cross-sectional approach. There were 100 respondents with simple random sampling. The independent variables were family support and self-efficacy, while the dependent variable was self-care behavior. The instrument to measure family support was the Hensarling Diabetes Family Support Scale (HDFSS), and to assess self-efficacy was the Diabetes Management Self Efficacy Scale (DMSES). Meanwhile, the instrument to evaluate self-care behavior was the Summary Diabetes Self Care Activities (SDSCA). The analysis utilized the Rank's Spearman test with a significant p <0.05. The results showed a correlation between family support and self-care with p=0.006 ($p \leq 0.05$) and an association between self-efficacy and self-care with p=0.001 ($p \leq 0.05$) in the elderly with type 2 diabetes. Family support and self-efficacy play an essential role in carrying out self-care behavior in the elderly with type 2 diabetes, so there is a need for family assistance and increased self-efficacy in carrying out self-care.

INTRODUCTION

Diabetes is a suboptimal insulin use in the body. This condition occurs due to increased blood glucose that exceeds the body's normal limits ((Rahmawati, Nursasi & Widyatuti, 2018)). Self-care is the basis for controlling diabetes and preventing complications. Increasing self-care activities will have an impact on improving the individual's health status. But in reality, most people with diabetes have not consistently carried out proper self-care activities. The low self-care carried out by them will harm their health status. Its manifestations are uncontrolled blood sugar and increased complications (Susanti & Bistara, 2018). Prolonged therapy and management for people with diabetes can cause boredom and even frustration. Therefore, it requires both internal and external motivation for patients to undergo all diabetes treatment therapy (Bistara & Ainiyah, 2017).

World Health Organization (WHO) predicts the prevalence of diabetes globally increases progressively every year to reach three times in 2030, which is 21.3 million. The International Diabetes Federation estimates it will touch 16.7. million in 2045 (International Diabetes Federation, 2019). According to Basic Health Research (Riskedas), the prevalence of self-care in people with diabetes was very low in Indonesia, namely 1.8% in 2018. Irregularity of taking anti-diabetes drugs in them as much as 9% in 2018

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because they feel already healthy (50.4%), no routine treatment (30.2%), traditional medicine use (25.3%), often forgetting (18.8%), and unable to buy medicine regularly (8,5%) (Kemenkes RI, 2018). Based on the data obtained from the Elderly Integrated Health Service Post (from now on, it is named with posyandu lansia) Wadungasri Village, Waru District, Sidoarjo Regency, There was 132 elderly living with diabetes. They had poor self-care behavior because their willingness and support to carry out self-care was very low. There was no proper self-care in diabetic elderly at posyandu lansia Wadungasri Village.

Family support has a positive effect on compliance in implementing self-care. People with diabetes have cognitive impairments and often rely on their families to help with self-care. Their self-care requires lifestyle modification plus the family's role to strengthen self-confidence, which leads to changes in self-care behavior (Mohebi et al, 2018; (Ravi, Kumar & Gopichandran, 2018). According to Firmansyah (2018), self-efficacy is the beliefs that exist in the patient. Changing or improving it will help enhance self-care independently. Self-care in people with diabetes improves their health status, and self-care includes dietary regulation, physical activity, periodic blood glucose monitoring, regular taking of medication, and doing foot care (Yao et al., 2019). Inadequate self-care will harm their lives and increase the risk of complications (Chaidir, Wahyuni & Furkhani, 2017).

There is a correlation between inadequate self-care and self-efficacy. Self-efficacy is a person's mindset to extensively regulate a human being's motivation and actions (Bandura, 1986). Self-efficacy can help know and see the strength of setting goals and holding fast in carrying out self-care behavior, which has become the goal (Amer et al., 2018)). Based on the above background, the authors want to prove whether there is a correlation between family support and self-efficacy with Self Care Behavior in the Elderly with Type 2 Diabetes Mellitus at the Posyandu Lansia in Wadungasri Village, Sidoarjo".

METHOD

The research design used qualitative analysis with a cross-sectional approach. This study population was 132 elderlies with type 2 diabetes at posyandu lansia Wadungasri Village. The number of samples in the study was 100 respondents with a simple random sampling. Inclusion criteria were elderly with type 2 diabetes, willing to be respondents, able to read and write and communicate well. The exclusion criteria were individuals with type 2 diabetes who experienced complications. The instrument utilized three standard questionnaires. To evaluate family support used the Hensarling Diabetes Family Support Scale (HDFSS) from (Hensarling, 2009), to assess self-efficacy utilized the Diabetes Management Self Efficacy Scale (DMSES) from Haghayegi, Ghasemi, Neshatdoost & Kajbaf (2010) Meanwhile, to measure self-care behavior took the Summary Diabetes Self Care Activities (SDSCA) questionnaire from Toobert, Hampson & Glasgow (2000). HDFSS includes questions about emotional support, appreciation support,

instrumental support, and information support with a total of 29 queries. DMSES contains 15 items about dietary regulation, physical activity, monitoring sugar levels, medication therapy, and general care. Meanwhile, SDSCA includes diet management, physical exercise, glucose monitoring, regular medication, and foot care with 17 questions. Data analysis used Spearman's rank Test with $p < \alpha = 0.05$, with ordinal variables. The research was carried out after obtaining approval from The Ethics Committee of the UNUSA Institute with No.139 / EC / KEPK / UNUSA / 2020. The study was conducted in June 2020.

RESULT

Research obtained respondent's characteristics, family support, Self Efficacy, and Self Care. Respondents Characteristics based on demographic data include:

1. Univariate Analysis

Tabel 1. Respondents Characteristics

No	Characteristics	Respondents (n=100)	
		Frequency	Percentage
1	Age (years)		
	Early elderly (46-55)	88	88
	Late elderly (56-65)	12	12
2	Work		
	Working	60	60
	Not working	40	40
3	Gender		
	Male	44	44
	Female	56	56
4	Education levels		
	Basic (elementary school to junior high school)	25	25
	Intermediate (senior high school)	69	69
	High (university)	6	6
5	Family support		
	Good	74	74
	Inadequate	26	26
6	Self-efficacy		
	Good	40	40
	Adequat	59	59
	Inadequate	1	1
7	Self-care behavior		
	Good	42	42
	Inadequate	58	58

Table 1 shows that most respondents are early elderly (88%), female (56%), an intermediate education level (69%), and actively working (60%). Meanwhile, in the study's variables, most of them have good family support (74%), adequate self-efficacy (59%), and inadequate self-care behavior (58%).

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Table 2. Correlation between Family Support and Self-Care Behavior in the Elderly with Type 2 Diabetes

Family Support	Self Care					
	Good		Less		Total	
	f	%	f	%	f	%
Good	37	50	37	50	74	100
Inadequate	5	19,2	21	80.8	26	100
Total	42	42	58	58	100	100
Spearman's Rank Test	p = 0.006					

Table 2 describes that half of the adequate family support (50%) have adequate self-care behavior, and almost all of them (80.8%) have inadequate self-care behavior. The Spearman rank test analysis shows p = 0.006 with a α <0.05 and the correlation coefficient of 0.273, which means the medium significant correlation between family support and self-care behavior in the elderly with type 2 diabetes.

Tabel 3. Correlation between Self-efficacy and Self-care Behavior in the Elderly with Type 2 Diabetes

Self-efficacy	Self-care behavior					
	Good		Inadequate		Total	
	frequency	Percentage (%)	frequency	Percentage (%)	frequency	Percentage (%)
Good	25	62.5	15	37.5	40	100
Adequate	16	27,1	43	72.9	59	100
Inadequate	1	100	0	0	1	100
Total	42	42	58	58	100	100
Spearman's Rank Test	p = 0.001					

Table 3 explains that from 40 respondents who have good self-efficacy, 62.5% have good self-care behavior. 72.9% of 59 respondents have less self-care. One respondent with good self-care behavior has less self-efficacy (100%). The Spearman Rank analysis shows p=0.001 with a α <0.05 and the correlation coefficient of 0.319, which showed a medium significant correlation.

DISCUSSION

1. Family support

In this study, most respondents got good support from their families. The authors believe that family support shows care for fellow family members. The family can compensate for family members with health problems to provide practical support consistently. This opinion is in line with a study by (Sudarman & Solissa (2020), which stated no separation between adherence and self-care behavior in people with diabetes with family support's significant role. The more incredible and optimal family support, the more patient compliance in implementing self-care as recommended.

The family is the predisposing factor for diabetic people in their support (Rahmawati, Nursasi & Widyatuti, 2018; (Bistara, et al 2020). It is the closest person to the environment and is easy to reach, especially in Indonesia, where the diabetic people lives with his family. The family has a massive role in providing direction for life to be healthy for family members, especially those who live with diabetes. The family is the most appropriate person to be their caregiver. The environment that exists in the family can

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have a positive influence. This study showed that family support correlated with self-care behavior. It is in line with a study by Prasetyani et al. (2018) which stated that family support is significantly associated with self-care abilities in diabetic people.

2. Self-efficacy

Most elderly with type 2 diabetes had adequate self-efficacy. Self-efficacy is very important for diabetic people. When the self-efficacy is low, doing self-care will be hampered. On the contrary, when self-efficacy is good, self-care behavior will be more obedient. This opinion is in line with the research of Handayani, Putra & Laksmi (2019) which reported that the higher the self-efficacy, the higher the compliance level in carrying out self-management of diabetic people. As a result, hopes or desires to improve health status or recover were more significant.

According to Handayani, Putra & Laksmi (2019), self-efficacy was the essential element to increase compliance in diabetic individuals in terms of self-management or self-care. The formation of a person's self-efficacy is obtained from experienced others by fostering self-confidence to affect the behavior to carry out well-planned tasks and goals, such as self-care compliance.

3. Self-care Behavior

This study showed that most respondents had inadequate self-care. Wrong perceptions can influence self-care implementation. Besides, the lack of self-care is because of a lack of confidence, so that there is insufficient self-care. This opinion is in line with Prasetyani et al. (2018) 's research that less self-care was likely due to other factors that affect uncontrolled self-care abilities, namely stress and social support from health workers, culture, and complications. Likewise, with Sudarman & Solissa (2020) research, respondents' external factors (such as low experience in doing self-care for diabetic people) resulted in inadequate self-care.

4. The correlation between family support and self-care behavior in the elderly with type 2 diabetes

Hanifah (2019) stated that the better family support, the better self-care. This opinion is in line with Ravi, Kumar & Gopichandran (2018) They reported that diabetic people with sufficient support from their families could influence the success rate in dealing with and overcoming their problems better than those who were not. This study also found an association between family support and self-care in the elderly with type 2 diabetes mellitus. They had good family support to elevate their self-confidence and hope in self-care behavior.

5. The correlation between self-efficacy and self-care behavior in the elderly with type 2 diabetes mellitus

According to research by Setyorini (2018), good self-efficacy indicated readiness to change behavior and willingness to perform behavior self-care, thereby reducing the fear of failure. This study found a

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correlation between self-efficacy and self-care behavior in the elderly with type 2 diabetes. The presence of good self-efficacy can increase adherence. It maintains the required behavior in self-care.

Self-care behavior in the elderly with diabetes controls blood sugar by eating control, physical activity or exercise, monitoring blood sugar levels within normal limits, taking the medication regularly, and foot care (Prasetyani et al. 2018). There will be good self-care behavior when there are family support and self-efficacy. In diabetic management, the family must understand the importance of dietary regulation, elderly physical activity, regulating blood sugar levels, and foot care (Ainiyah & Martining, 2021; Ravi et al., 2018). Family support can influence self-care behavior, but self-efficacy also has a significant role in building it. Self-efficacy plays a role in self-belief in carrying out self-care. Diabetic elderly must appropriately implement self-efficacy because it only can be carried out by themselves, so they need to instill confidence (self-confidence) in carrying out these self-care behaviors (Amer et al., 2018).

CONCLUSION

This study indicates that family support and self-efficacy correlates with self-care behavior in the elderly with type 2 diabetes. Family support to the elderly with type 2 diabetes will help maintain health. Besides, self-efficacy also has a significant role in older people's self-care behavior with type 2 diabetes. Good self-efficacy can increase adherence and maintain their health status.

REFERENCE

Ainiyah, N., & Martining Wardani, E. (2021). Implementation Of Diabetic Foot Spa And Sauna Bathing On Quality Of Sleep And Blood Glucose Levels In Individuals With Type 2 Diabetes. *Jurnal Of Health Science*, *01*, 21–26.

Amer, F. A. M., Mohamed, M. S., Elbur, A. I., Abdelaziz, S. I., & Elrayah, Z. A. B. (2018). Influence of self-efficacy management on adherence to self-care activities and treatment outcome among diabetes mellitus type 2 sudanese patients. *Pharmacy Practice*, *16*(4), 1–7. https://doi.org/10.18549/PharmPract.2018.04.1274

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. *In Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, Inc. https://psycnet.apa.org/record/1985-98423-000

Chaidir, R., Wahyuni, A. S., & Furkhani, D. W. (2017). Hubungan Self Care Dengan Kualitas HiduOktaviani.J. (2018). 済無No Title No Title. Sereal Untuk, 51(1), 51.p Pasien Diabetes Melitus. *Jurnal Endurance*, *2*(2), 132.

Dewi Prasetyani, Evy Apriani, Y. S. E. R. (2018). Hubungan Karakteristik, Pengetahuan Dan Dukungan

Keluarga Dengan Kemampuan Self Care Pada Pasien Diabetes Melitus Tipe II. *Jurnal Kesehatan Al-Irsyad (JKA)*, *XI*(1), 40–49.

Difran N. Bistara, Rusdianingseh, Susanti, Erika M. Wardani, Yurike Septianingrum, Nur Ainiyah, Andikawati Fitriasari, Iis Noventi, S. N. H. (2020). Acceptance and Commitment Therapy (Act) on Increasing the Compliance of Management Diabetes Mellitus Type 2. *International Journal of Psychosocial Rehabilitation*, *24*(9), 942–946.

Haghayegh A.S, Ghasemi N., Neshatdoost H.T., Kajbaf M., K. M. (2010). Psychometric Properties Of Diabetes Management Self-Efficacy Scale (Dmses). *Iranian Journal Of Endocrinology And Metabolism (Ijem)*, *12*(2). Https://Www.Sid.Ir/En/Journal/Viewpaper.Aspx?Id=257163

Handayani, N. K. D. T., Putra, P. W. K., & Laksmi, I. A. A. (2019). Efikasi Diri Berhubungan dengan Kepatuhan Manajemen Diri pada Pasien Diabetes Melitus di Wilayah Kerja Puskesmas Buleleng III. *Jurnal Ilmu Dan Teknologi Kesehatan*, *7*(1), 28–38. https://doi.org/10.32668/jitek.v7i1.194

Hanifah, R. A. (2019). *Hubungan Dukungan Keluarga Dan Efikasi Diri Dengan Self-Care Penderita Diabetes Mellitus Tipe-2 Di Puskesmas Kasihan Ii Bantul* [Universitas 'Aisyiyah]. http://digilib2.unisayogya.ac.id/handle/123456789/175

Hensarling, J. (2009). Development and Psychometric Testing. *Dissertation*, *May*.

Kemenkes RI. (2018). Hasil Riset Kesehatan Dasar Tahun 2018. *Kementrian Kesehatan RI*, *53*(9), 1689–1699.

Mohebi, S., Parham, M., Sharifirad, G., & Gharlipour, Z. (2018). *Social Support and Self - Care Behavior Study*. 1–6. https://doi.org/10.4103/jehp.jehp

Nobel Bistara, D., & Ainiyah, N. (2017). Hubungan Pengetahuan Dengan Kepatuhan Diet Pada Penderita Diabetes Mellitus Di Posyandu Lansia Cempaka Kelurahan Tembok Dukuh Kecamatan Bubutan Surabaya. *Journal of Health Sciences*, *11*(1), 51–57. https://doi.org/10.33086/jhs.v11i1.117

Rahmawati, A., Nursasi, A. Y., & Widyatuti. (2018). Dukungan Informasi Keluarga Meningkatkan Self-Care. *Keperawatan*, *5*(1), 5–8.

Ravi, S., Kumar, S., & Gopichandran, V. (2018). Do supportive family behaviors promote diabetes self-management in resource limited urban settings? A cross sectional study. *BMC Public Health*, *18*(1), 1–9. https://doi.org/10.1186/s12889-018-5766-1

Setyorini, A. (2018). Hubungan Self Efficacy dengan Self Care Management Lansia yang Menderita Hipertensi di Posyandu Lansia Padukuhan Panggang III Binaan Puskesmas Panggang I Gunungkidul. *Health Sciences and Pharmacy Journal*, *2*(2), 58. https://doi.org/10.32504/hspj.v2i2.29

Sudarman, S., & Solissa, M. D. (2020). Dukungan Keluarga Mempengaruhi Self Care pada Pasien Diabetes Mellitus. *Jurnal Keperawatan*, *12*(2), 319–326.

Susanti, S., & Bistara, D. N. (2018). Hubungan Pola Makan Dengan Kadar Gula Darah Pada Penderita Diabetes Mellitus. *Jurnal Kesehatan Vokasional*, *3*(1), 29. https://doi.org/10.22146/jkesvo.34080

Toobert, D. J., Hampson, S. E., & Glasgow, R. E. (2000). The Summary of Diabetes Self-Care. *Diabetes Care Journal*, *23*(7), 943–950.

Yao, J., Wang, H., Yin, X., Yin, J., Guo, X., & Sun, Q. (2019). The association between self-efficacy and self-management behaviors among Chinese patients with type 2 diabetes. *PLoS ONE*, *14*(11), 1–12. https://doi.org/10.1371/journal.pone.0224869