

The Relationship Between Sociodemography, Knowledge And Family Support With Family Readiness In Treating Patients With Diabetic Ulcer In Regional Hospital Of Aceh

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Abstract:

Background of study: Care for diabetic ulcers necessitates extensive treatment and a lengthy recuperation period, necessitating family readiness in terms of family support, costs, time, and knowledge. This study aimed to determine the sociodemographic relationship between knowledge, family support, and family preparedness to care for diabetic ulcer patients.

Materials and Methods: The form of research conducted was quantitative research employing a correlational methodology and a cross-sectional design. All members of the primary family caring for patients with diabetic ulcers comprise the population. 113 respondents were selected using a method of purposive sampling to collect the samples. For data collection, a questionnaire containing sociodemographic, knowledge (using the Guttman scale), family support (using the MSPSS instrument), and family preparedness (using the CPS instrument) questions was used. For inferential analysis, the chi-square test (2 test) and logistic regression were utilized.

Result: There is a correlation between age ($p=0.002$), education ($p=0.000$), income ($p=0.019$), knowledge ($p=0.015$), and family support ($p=0.000$), but there is no correlation between marital status ($p=0.504$) and employment ($p = 0.485$) and family readiness in caring for diabetic ulcer patients. The variable with the largest coefficient is familial support ($p=0.000$).

Conclusion: Based on the findings of this study, family members who receive family support will be 6,764 times better prepared to care for diabetic ulcer patients.

Key words: Family Support, Knowledge, Family Readiness, and Diabetic Ulcers

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I. Introduction

Diabetes mellitus (DM) is a non-communicable disease (NCD) with an ever-increasing prevalence rate. Type 2 diabetes occurs when the body is either unable to produce enough insulin or unable to effectively use insulin. Insulin enables the body's cells to absorb glucose and utilize it for energy. Inadequate glucose absorption causes hyperglycemia, which can destroy the body's cells, resulting in health complications such as kidney, leg, eye, and heart damage and premature mortality (International Diabetes Federation, 2013).

The World Health Organization (WHO) estimates that there are 422 million DM patients worldwide, with the majority residing in low- and middle-income countries. 1.5 million people die directly from DM each year (WHO, 2022). The International Diabetes Federation (IDF) found that in 2021, the prevalence of DM patients between the ages of 20 and 79 will be as high as 5.3% in Africa, 7.0% in Europe, 18.1% in the Middle East and North Africa, 11.9% in North America and the Caribbean, 8.2% in South and Central America, 10% in Southeast Asia, and 9.9% in the Western Pacific (IDF, 2021).

In 2018, according to the Basic Health Research Data (Riskesdas), the prevalence of DM patients in Indonesia based on a physician's diagnosis was 1.5%. 1,78% of diabetic patients were female and 1,20% were male. According to Riskesdas data based on a physician's diagnosis, the prevalence of DM patients in Aceh Province in 2018 was 1.68 percent (Ministry of Health RI, 2019).

Hyperglycemia develops gradually, resulting in microvascular (diabetic retinopathy, diabetic neuropathy, and diabetic nephropathy) and macrovascular (cardiovascular disease or brain and peripheral vascular disease) complications (American Diabetes Association, 2010).

According to Anggraini, Suryawati, and Rachma (2018), the treatment of type 2 DM with diabetic ulcers necessitates family involvement in patient care. Family consists of two or more individuals who reside in

the same location and have emotional connections as well as social involvement in interrelated roles and responsibilities. Families provide care to patients with diabetic ulcers, beginning with attention, compassion, empathy, and assistance with the patient's financial, autonomy, and psychosocial issues, so that the patient does not feel depressed by the disease (Friedman & Bowden, 2010; Effendy, 2014).

The readiness of the family to provide care, emotional support, and prepare services at home does not always correspond to the family's participation in the care process (Petruzzo, Paturzo, Buck, Barbaranelli, D'Agostino, Ausili, Alvaro, & Vellone et al., 2017). Lutz et.al investigation. al., (2017) found that the family felt inadequate to assume a parental role after hospital discharge.

Patients with diabetic ulcers have a critical need for family members who are willing to provide assistance. Because patients with family support are more compliant than those without it. Patients with diabetic ulcers require this family support to bolster the patient's confidence in managing the disease so that the patient is motivated to take care of it. In order to provide the finest care for patients with diabetic ulcers, family experience provides additional knowledge and skills (Wulandari & Kusnanto, 2020).

According to the research of Ming and Bihua (2021), the age, knowledge, and level of authorization of the patient's family are related to their ability to care for diabetic patients. In addition, Ariska, Handayani, and Hartati (2020) reported that age, employment status, gender, income, marital status, family relationships, and family support are factors that contribute to the family burden of patient care.

The research of Ming and Bihua (2021) indicates that the elder a person is, the lower their readiness score. Similarly, according to Ariska et. al. et al. (2020) demonstrated that the high burden of caregiving for sick family members is borne by older individuals. Younger individuals are more amenable to being taught management skills and knowledge (Ming & Bihua, 2021).

According to Alshammari, Alsaid, PJ, and Alzahrani's (2019) research, married family members are more knowledgeable about diabetic ulcer treatment. However, a married person has additional responsibilities, such as preparing domestic necessities, so that attempting to complete all of the tasks is a burdensome endeavor. A non-working individual experiences a greater economic burden, whereas a working individual can alleviate this burden when providing for family members. Access to health facilities to procure health services and health status information is also influenced by a person's income (Ariska et al., 2020).

The research conducted by Ming and Bihua (2021) indicates that the greater a person's knowledge of the disease, the better prepared they are to implement specific treatment measures. Integrated care for diabetic ulcers necessitates the participation, assistance, support, and encouragement of all families. In order to increase one's responsibilities as a caregiver for sick family members, one must therefore have a thorough comprehension of the condition of DM patients.

The provision of familial social support to a caregiver can prevent the occurrence of emotional disturbances resulting from the performance of care activities. (Ariska et al., 2020) Good family support can make a person stronger and more capable of carrying out their responsibilities.

Abu, Arafat, and Syahrul (2020) state that experience in caring for patients will help families to be better prepared to care for them again, the success of treating patients depends on the strength of the family's relationship with the patient, and the understanding provided to the family will have a positive impact on the patient and the family by decreasing the frequency of hospitalization.

Dr. Zainoel Abidin Banda Aceh discovered from the Medical Records of RSUD that the prevalence of DM patients in 2019 was 1,420 inpatients and 16,223 outpatients. In 2020, the number of DM inpatients was approximately 1,030, and the number of DM outpatients was approximately 10,066. In the meantime, the data for 2021 indicate that there will be 908 inpatients and 10,203 outpatients. In 2021, there will be 286 DM patients with diabetic ulcers, and in 2022, there will be 159 from January to June.

Five caregivers who cared for patients with diabetic ulcers were interviewed on July 7, 2022; all stated that it was difficult to manage their time in caring for patients alone due to the patients' reliance on activities. Two caregivers also mentioned the lack of costs for treating diabetic ulcers, and three still lacked knowledge for caring for patients with diabetic ulcers. According to the data presented above, the prevalence of diabetic ulcers among patients at Zainoel Abidin Hospital remained high. The phenomenon that occurs is that the care of patients with diabetic ulcers requires family readiness, because the management of diabetic ulcers is very comprehensive and recovery takes a long time, such as the willingness to pay for treating diabetic ulcer patients, dividing work time with time spent caring for patients, and knowledge about managing diabetic ulcer care at home.

Researchers are interested in conducting research on the sociodemographic relationship, knowledge, and family support with family readiness in caring for patients with diabetic ulcers at dr. Zainoel Abdi Banda Aceh based on the information provided above.

II. Materials and Methods

Research Design: Cross-sectional research methodology

Research Location: This investigation was conducted in Aqsa 1, Aqsa 2, Aqsa 3, Raudhah 3, Raudhah 4, Raudhah 6, and Raudhah 7 RSUD dr. Zainoel Abidin's inpatient rooms with endocrine system disorders.

Research Duration: 13 January to 13 March 2023.

Sample size: 113 nuclear families.

Sample Size Measurement: Knowing the number of samples in this investigation using the Lameshow formula, which ranges from 159 total population to 113 total samples.

Sampling technique: The sampling technique employs purposive sampling, which is the technique of obtaining samples by establishing criteria based on the requirements of this study.

Instruments: The data collection procedure employs a questionnaire as its instrument. This study's questionnaire included the following sections:

1. The sociodemographic characteristics of respondents include age, marital status, education, occupation, and income.
2. The questionnaire for the knowledge variable consists of six closed questions on a Guttman scale with "yes" and "no" response options. If the response is true on a test of knowledge, a score of one is assigned. A score of 0-3 is considered "poor" knowledge, while a score of 4-6 is considered "good" knowledge.
3. The Multidimensional Scale of Perceived Social Support (MSPSS) is used to measure family support. This instrument consists of 12 questions, each of which employs a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (very strongly agree).
4. The eight-item Preparedness for Caregiving Scale (CPS) or self-rated instrument is used to measure the family preparedness variable. Answers are graded on a scale from 0 to 4, with a score of 0 (not at all prepared) to 4 (extremely well prepared). The higher the score, the more prepared the family is for parenthood; conversely, the lower the score, the less prepared the family feels.

Inclusion Requirements:

1. Family members (husband/wife/children/parents) who provide care for patients with diabetic ulcers and type 2 DM.
2. Responsible family members who accompany patients with diabetic ulcers during treatment.
3. Family members who collaborate.
4. Family members older than 17 years of age.
5. Family members who have tended for type 2 DM patients with at least grade II diabetic ulcers for the past three months.

Procedure

The researcher personally met the respondent in the hospital room. They were then given an explanation of the objectives, benefits, and procedures of the research and asked if they were willing to participate as research subjects. Before completing the questionnaire, respondents who wished to participate in the study were required to execute an informed consent form.

Statistical examination

After collecting the data, it was coded and analysed using a computer programme, after rechecking the completeness of entries for all sections of the individually collected research instrument. The data analysis employed descriptive statistics, including the frequency and percentage of each variable. The Chi-square test is utilised to determine statistical significance and whether a relationship exists. The logistic regression test was used to determine the most influential variable associated with family readiness to care for diabetic ulcer patients.

III. Results

Table 1 displays the characteristics of the majority of respondents to this study, including early adult respondents as many as 80 respondents (70.8%), married status as many as 80 respondents (70.8%), high education category as many as 62 respondents (54.9%), working status as 68 respondents (60.2%), income

below UMP by 87 respondents (77%), relationship with patients as children by 76 respondents (67.3%), good knowledge by 92 respondents (81.4%), and good family support as many as 60 respondents (53.1%).

Table 1. Univariate

No	Characteristics	Frequency	Percentage
1	Age Mean ± SD	(39.17 ± 13.042)	
	Early adulthood	80	70.8
	Late adulthood	18	15.9
	Elderly	15	13.3
2	Marital Status		
	Not Married	33	29.2
	Married	80	70.8
3	Educational Background		
	Elementary	26	23.0
	High School	25	22.1
	University	62	54.9
4	Employment Status		
	Job	68	60.2
	Jobless	45	39.8
5	Income		
	Above UMP (≥Rp3.166.460.00)	26	23.0
	Below UMP (<Rp3.166.460.00)	87	77.0
6	Relationship with the patient		
	Child	76	67.3
	Wife	22	19.5
	Parents	3	2.7
	Husband	12	10.6
7	Knowledge		
	Very Good	92	81.4
	Good Enough	21	18.6
8	Support		
	Very Good	60	53.1
	Good Enough	53	46.9
9	Readiness		
	Ready	62	54.9
	Not Ready	51	45.1

Table 2. Bivariate Analysis

No	Characteristics	Readiness				p
		Ready		Not Ready		
		f	%	f	%	
1	Age Mean ± SD	(39.17 ± 13.042)				0.002
	Early adulthood	48	60	32	40	
	Late adulthood	12	66,7	6	33,3	
	Elderly	2	13,3	13	86,7	
2	Marital Status					0.504
	Not Married	16	48,5	17	51,5	
	Married	46	57,5	34	42,5	
3	Educational Background					0.000
	Elementary	5	19,2	21	80,8	
	High School	16	64	9	36	
	University	41	66,1	21	33,9	
4	Employment Status					0.485
	Job	35	51,5	33	48,5	
	Jobless	27	60	18	40	
5	Income					0.019
	Above UMP (≥Rp3.166.460.00)	20	76,9	6	23,1	
	Below UMP (<Rp3.166.460.00)	42	48,3	45	51,7	
6	Knowledge					0.015
	Very Good	56	60,9	36	39,1	
	Good Enough	6	28,6	15	71,4	
7	Support					0.000
	Very Good	47	78,3	13	21,7	
	Good Enough	15	28,3	38	71,7	

Multivariate Analysis

Selection of prospective variables

The results of the model's presented feasibility test indicate that age, education, income, knowledge, and family support achieve a significant value of 0.25, so it is feasible to include these five variables in the logistic regression model.

Table 3. Feasibility Test Results

No	Prediktor	p
1	Age	0.008
2	Marital Status	0.382
3	Education	0.000
4	Work	0.373
5	Income	0.013
6	Knowledge	0.010
7	Family Support	0.000

Logistic Regression Test (Step 1)

Table 4. Results of Analysis Step 1

Predictor	OR	p	95% CI	
			Lower	Upper
Age	0.98 1	0.966		
Education	0.70 4	0.391	0.316-1.568	
Income	1.90 2	0.302	0.562-6.437	
Knowledge	1.90 7	0.322	0.531-6.846	
Family Support	6.76 4	0.000	2.722-16.808	

Table 4 shows that the family support variable is the most significant predictor of family readiness in caring for diabetic ulcer patients at dr. Zainoel Abidin Banda Aceh (p=0.000 0.05) with an odds ratio (Exp. B) of 6.764. This means that family members who receive family support have a 6.764 times greater likelihood of being better prepared in caring for diabetic ulcer patients at RSUD dr. Zainoel Abidin Banda Aceh than those who do not

IV. Discussion

Relationship between Age and Family Readiness in the Care of Diabetic Ulcer Patients

Based on the results of the study, it was determined that there was a correlation between age and family preparedness in caring for diabetic ulcer patients at dr. Zainoel Abidin Banda Aceh (p=0.002). This is consistent with the findings of Ming and Bihua (2021), who found that the preparedness of the primary caregiver to care for DM patients is affected by age (p=0.04). According to research by Gutierrez-Baena and Romero-Grimaldi (2022), there is a significant correlation between caregiver age and preparedness (p=0.008). Similarly, the investigation conducted by Ariska et al. et al. (2020) found an association between age and caregiver burden (p=0.009).

According to Elisabeth's viewpoint in (Wawan & Dewi, 2015), the more mature a person is, the more mature the level of maturity and fortitude in thinking and working, and the public will place more trust in a more mature individual. Similarly, the findings of Ming and Bihua's research (2021) indicate that older individuals have lower readiness scores than younger individuals with relatively high readiness scores. According to the study's findings, 60% of early adult respondents and 66.7% of late adult respondents were prepared to treat patients with diabetic ulcers, whereas 86.7% of geriatric respondents were not prepared to treat diabetic ulcer patients.

It can be concluded that adult caregivers are better prepared to care for patients with diabetic ulcers than their geriatric counterparts. Adult caregivers are supported by developed physical and psychological problem-solving abilities, as well as the capacity to acquire, receive, and process information using information technology tools that effectively translate medical knowledge into practical care.

The Relationship between Marriage Status and Family Readiness in Diabetic Ulcer Patients' Care

According to the findings of the study, there was no correlation between marital status and family readiness in providing for diabetic ulcer patients at dr. Zainoel Abdi Banda Aceh ($p=0.504$). This is consistent with Alshammari et al.'s (2019) finding that there was no association between marital status and attitudes towards foot care for DM patients ($p=0.145$) or foot care practises for DM patients ($p=0.678$).

According to the findings of Abu et al. (2020), the success of patient treatment depends on the quality of the family relationship. According to Alliance (2014), an informal caregiver is a person who lives with or apart from those receiving care, such as children, parents, siblings, spouses, friends, and neighbours who are emotionally close enough to assist other family members with chronic or acute conditions. The results of the study indicate that 70.8% of respondents were married and 29.2% were unmarried, with the majority of respondents having a relationship with their parents as children (67.3% for patients and 2.8% for parents).

As most caregivers care for their sick parents, the strength of the marital relationship does not influence caregiver readiness; rather, the strength of the emotional bond between patient and caregiver does. Identifies the patient's preparedness for treatment. It is the responsibility of caregivers, regardless of marital status, to provide care for their ailing relatives.

The Relationship between Education and Family Readiness in Diabetic Ulcer Patient Care

According to the findings of the study, there was a correlation between education and family readiness in providing for patients with diabetic ulcers at dr. Zainoel Abdi Banda Aceh ($p=0.000$). This is consistent with research by Liu et al. (2020), which indicates that the level of education of caregivers is a factor that influences caregiver preparedness ($p=0.001$).

According to Notoatmodjo (2012), education is an effort to develop a person's personality in order for him to have excellent abilities. Education also influences a person's attitudes and behaviour. The greater a person's level of education, the more information and knowledge they acquire. Similarly, according to Erwina et al. et al. (2016), a higher education can make it simpler for an individual to receive information, resulting in increased knowledge. (Adioetomo & Samsir, 2013) Caregivers with a higher level of education will be better at carrying out their responsibilities than those with a lower level of education.

This is consistent with Sari and Nirmalasari's (2020) finding that low education and parental experience are significant factors contributing to low readiness. Low educational attainment can hinder the ability of caregivers to effectively communicate with medical professionals. Low levels of education also contribute to caregiver confusion regarding causes, treatment, and care, thereby impacting caregiver preparedness. According to the findings of the study, 66.1% of respondents with a high level of education were prepared to treat patients with diabetic ulcers, while 80.8% of respondents with a low level of education were not prepared to treat patients with diabetic ulcers.

It can be inferred that caregivers with a higher level of education are better prepared to care for diabetic ulcer patients than those with a lower level of education. A person with a higher level of education typically has extensive health knowledge and is better at receiving information. In contrast to low-educated caregivers, however, they have a tendency to be more resistant to change and information processing, necessitating a slow and intensive comprehension that results in the improper implementation of care management, making them susceptible to complications.

Relationship between occupational and familial preparedness in caring for diabetic ulcer patients

Based on the findings of the study, there was no correlation between work and family readiness in providing for diabetic ulcer patients at dr. Zainoel Abdin Banda Aceh ($p=0.485$). This is consistent with the findings of Retnowati and Satabakti (2015), who concluded that there is no correlation between employment status and quality of life ($p=0.165$). Similarly, Alshammari et al. (2019) found no difference between work-related attitudes towards foot care for DM patients ($=0.419$) and actual foot care for DM patients ($p=0.150$).

According to Retnowati and Satyabakti (2015), employed caregivers engage in activities other than patient care and, of course, they earn income, thereby reducing the economic burden. Those who do not work will have ample time to provide care for ailing family members. According to the findings of the study, 60.2% of respondents were employed while 39.8% of respondents were unemployed.

It can be assumed that the employment status of caregivers has no bearing on their preparedness to care for patients with diabetic ulceration. Because a person who does not work is more dominant at home, they will spend a considerable amount of time with their family, particularly caring for patients. Similarly, respondents who are employed can contribute to patient care by incurring medical costs.

The Relationship between Income and Family Readiness in Diabetic Ulcer Patients' Care

According to the results of the study, there was a correlation ($p=0.019$) between income and family preparedness to care for diabetic ulcer patients at dr. Zainoel Abdi Banda Aceh. This is consistent with the findings of Ariska et al. et al. (2020) found a correlation between income and caregiver expenses ($p=0.000$). Similarly, Retnowati and Satyabakti (2015) found a significant relationship between DM patients' income and their quality of life ($p=0.034$).

According to Adioetomo and Samosir (2013), a high income will have sufficient resources to satisfy the needs of the family and can allocate more funds to assist less fortunate family members. This is consistent with the findings of Ariska et al. et al. (2020), low-income caregivers will result in a significant financial burden. Similarly, Retnowati and Satyabakti (2015) found that limited family income affects the utilisation of health services. This is consistent with the study's findings that respondents with incomes above the UMP were ready to treat patients up to 76.9% of the time, whereas respondents with incomes below the UMP were not ready to treat patients up to 51.9% of the time.

This means that a person with a high income is better equipped to treat patients with diabetic ulcers than someone with an income below the UMP, because DM is a chronic disease that requires long-term and routine care and must be controlled by health services, requiring assistance with medical expenses that are not insignificant, despite the fact that some of the costs are covered by health insurance or BPJS.

The Relationship between Knowledge and Family Readiness in Diabetic Ulcer Patient Care

Knowledge and family readiness in caring for patients with diabetic ulceration at dr. Zainoel Abdi Banda Aceh were found to be related ($p=0.015$) based on the findings of this study. This is consistent with the findings of Ming and Bihua's research (2021), which indicates that knowledge has an effect on the preparedness of primary caregivers ($p=0.000$). According to research conducted by Rini and Indarwati (2010), there is a correlation between the level of knowledge and family preparedness to care for sick family members ($p=0.000$).

According to Notoatmodjo (2012), a number of respondents stated that excellent knowledge will be reflected in family behaviour when caring for sick family members in an effort to enhance life quality. Knowledge is a crucial domain aspect for the formulation of behaviour; the greater the level of one's knowledge, the more it will be able to influence mindsets and attitudes, resulting in a change in behaviour (Notoatmodjo, 2012). The findings of Ming and Bihua's research (2021) indicate that those with a high level of knowledge tend to have a positive attitude towards caring for ill family members, whereas those with a low level of knowledge have a negative attitude. This is consistent with the findings of the study, which indicated that respondents with superior knowledge had a preparedness rate of 60.9%, whereas respondents with inferior knowledge had a preparedness rate of 71.4%.

This illustrate that the more knowledgeable the caregiver, the better equipped they are to care for patients with diabetic ulcers, whereas the less knowledgeable the caregiver, the less prepared they are to care for sick relatives. Inadequate knowledge makes families less capable of instituting appropriate management of DM care, increasing the risk of complications that can diminish the patient's quality of life.

Relationship between family support and family preparedness to care for diabetic ulcer patients

According to the findings of the study, there was a correlation between family support and family readiness in providing for patients with diabetic ulcers at dr. Zainoel Abdiin Banda Aceh ($p=0.000$). According to the findings of Retnowati and Satyabakti's (2015) investigation, there is a correlation between family support and quality of life ($p=0.000$). This is also consistent with the findings of Ariska et al. et al. (2020) reported that there is an association between family support and caregiver burden ($p=0.000$). Similarly, research by Amelia, Wahyuni, Ariga, Felicia, and Preveena (2018) indicates a correlation between family support and quality of life in Type 2 DM patients.

Consistent with the results of the logistic regression test, the coefficient ($p=0.000$) for the relationship between the family support variable and the family's preparedness to care for patients with diabetic ulcers indicates that the family support variable has the strongest relationship. This study also yielded an Odds Ratio (Exp. B) value of 6.764, which indicates that respondents who receive family support will be 6,764 times better prepared to treat patients with diabetic ulceration at RSUD dr. Zainoel Abdi Banda Aceh. According to the findings of Retnowati and Satyabakti (2015), the likelihood ratio was 14.950, indicating that respondents who received family support would be 15 times happier with their quality of life than respondents who received less family support.

According to Nugroho (2010), family support is the process of providing assistance to family members with health problems so that they can maintain or enhance their health. According to Friedman and Bowden (2010), family is the primary source of support across four dimensions: the affective dimension, the assessment dimension, the instrumental dimension, and the informational dimension.

According to the findings of Ariska et al. et al., (2020), family support can make a person stronger and more capable of fulfilling his responsibilities. This will assist families in being better prepared for their responsibilities, which will have a positive effect on the success of patient treatment (Abu et al., 2020). According to the findings of the study, 78.3% of respondents who received adequate family support were prepared, while 71.7% of respondents who received inadequate family support were unprepared.

Allow for the conclusion that age, education, income, knowledge, and family support influence family readiness. However, family support has the greatest impact on family capacity to care for patients with diabetic ulcers. Caregivers who receive family support are better equipped than those who do not to care for patients with diabetic ulcers. Instrumental support involves the family assisting other family members in preparing the patient's medical records for hospital treatment and contributing to the expense of treating diabetic ulcers at home. Emotional support is characterized by social support, which makes caregivers feel cared for and increases their enthusiasm for caring for diabetic ulcer patients. The caregivers always receive information from the patient's family regarding the care of diabetic ulcer patients. Assessment support entails that families provide caregivers with solutions to problems that arise during the treatment of diabetic ulcer patients.

V. Conclusion

Based on the results of the logistic regression test, it was determined that variables had a strong relationship with the family's preparedness to care for diabetic ulcer patients. Consistent with the family support variable's coefficient ($p=0.000$). The result of the Odds Ratio (Exp. B) is 6.764, which indicates that family members who receive family support will be 6.764% better equipped to treat diabetic ulcer patients at RSUD dr. Zainoel Abidin Banda Aceh.

References

- [1]. Abu, M., Arafat, R., & Syahrul, S. (2020). The readiness of family in treating post-stroke patients at home: A literature review. *Enfermeria Clinica*, 30, 293–296.
- [2]. ADA, (American Diabetes Association). (2010). *Diagnosis and Classification of Diabetes Mellitus*. *Diabetes Care*, 33(S62), S69.
- [3]. Adioetomo, S. M., & Samosir, O. B. (2013). *Dasar-Dasar Demografi*. Jakarta: Salemba Empat.
- [4]. Alliance. (2014). *Definitions What Do We Mean By*. Retrieved April 27, 2022, from FOA National Center on Caregiving website: <https://www.caregiver.org/resource/definitions-0/>
- [5]. Alshammari, Z. J., Alsaid, L. A., PJ, P., & Alzahrani, A. A. (2019). Attitude and knowledge about foot care among diabetic patients in Riyadh, Saudi Arabia. *Journal of Family Medicine and Primary Care*, 8(6), 2089–2094.
- [6]. Amelia, R., Wahyuni, A. S., Ariga, R. A., Felicia, & Preveena. (2018). Relationship between family support with quality of life among type 2 diabetes mellitus patients at Amplas primary health care in Medan, Indonesia. *Journal of Physics: Conference Series*.
- [7]. Anggraini, R., Suryawati, C., & Rachma, N. (2018). Effects Of Dietary Management Education On Self-Efficacy And Caregiver Practice In Dietary Care Of Family Members With Type 2 DM. 6(3), 211–218.
- [8]. Ariska, Y. N., Handayani, P. A., & Hartati, E. (2020). Faktor yang Berhubungan dengan Beban Caregiver dalam Merawat Keluarga yang Mengalami Stroke. *Holistic Nursing and Health Science*, 3(1), 52–63.
- [9]. Effendy. (2014). Dealing with symptoms and issues of hospitalized patients with cancer in Indonesia: the role of families, nurses, and physicians. *Pain Practice*, 15(5), 441–446.
- [10]. Erwina, Gusty, & Monalisa. (2016). Distress emosional pada caregiver perempuan dengan anggota keluarga yang mengalami gangguan jiwa. *Ners Jurnal Keperawatan*, 12(1), 28–37.
- [11]. Friedman, M. M., & Bowden, V. R. (2010). *Buku ajar keperawatan keluarga*. Jakarta: EGC.
- [12]. Gutierrez-Baena, B., & Romero-Grimaldi, C. (2022). Predictive model for the preparedness level of the family caregiver. *International Journal of Nursing Practice*, 28(3). <https://doi.org/10.1111/ijn.13057>
- [13]. IDF. (2013). *Diabetes Atlas*. International Diabetes Federation.
- [14]. IDF. (2022). *Age-adjusted comparative prevalence of diabetes*. Retrieved February 25, 2022, from International Diabetes Federation website: <https://diabetesatlas.org/data/en/indicators/2/>
- [15]. Kemenkes RI. (2019). *Laporan Riskesdas Nasional 2018*. Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- [16]. Liu, J., Liu, Q., Huang, Y., Wang, W., He, G., & Zeng, Y. (2020). Effects of personal characteristics, disease uncertainty and knowledge on family caregivers' preparedness of stroke survivors: a cross-sectional study. *Nursing & Health Sciences*, 22(4), 892–902. <https://doi.org/10.1111/nhs.12743>
- [17]. Lutz, B. J., Young, M. E., Creasy, K. R., Martz, C., Eisenbrandt, L., Brunny, J. N., & Cook, C. (2017). Improving Stroke Caregiver Readiness for Transition From Inpatient Rehabilitation to Home. *The Gerontologist*, 57(5), 880–889. <https://doi.org/10.1093/geront/gnw135>
- [18]. Ming, N., & Bihua, L. U. O. (2021). A research on the status and influencing factors of primary caregiver readiness of elderly diabetic patients. *JXYN*, 2(4), 411–416.
- [19]. Notoatmodjo. (2012). *Promosi kesehatan dan perilaku kesehatan*. Jakarta: PT. Rineka Cipta.
- [20]. Petruzzo, A., Paturzo, M., Buck, H. G., Barbaranelli, C., D'Agostino, F., Ausili, D., ... Vellone, E. (2017). Psychometric evaluation of the Caregiver Preparedness Scale in caregivers of adults with heart failure. *Research in Nursing and Health*, 40(5), 470–478.
- [21]. Retnowati, N., & Satyabakti, P. (2015). The Correlation between Family Support with the Quality of Life of Patients with Diabetes Mellitus. *Jurnal Berkala Epidemiologi*, 3(1), 57–68.
- [22]. Rini, S., & Indarwati. (2010). tingkat pengetahuan keluarga dan kesiapan keluarga dalam merawat anggota keluarga yang menderita stroke di Desa Kebakkramat Karanganyar. *GASTER*, 7(2), 581–592.
- [23]. Sari, I. W. W., & Nirmalasari, N. (2020). Preparedness among family caregivers of patients with noncommunicable diseases in Indonesia. *Nurse Media Journal of Nursing*, 10(3), 339–349. <https://doi.org/10.14710/NMJN.V10I3.31954>
- [24]. Wawan, A., & Dewi, M. (2015). *Teori & Pengukuran Pengetahuan, Sikap Dan Perilaku Manusia (II)*. Yogyakarta: Nuha Medika.
- [25]. WHO. (2022). *Diabetes*. Retrieved April 18, 2022, from World Health Organization website: https://www.who.int/health-topics/diabetes#tab=tab_1