The Relationship Between Family Support and Quality of Life in Diabetic Ulcer Patients at Wocare Clinic Bogor

Nur Fajariyah[*1], Sekani Niriyah[2], Grace Esther Meylita Simanjuntak [1]

[1]Psychiatric Nursing, Faculty of Health Sciences, Universitas Nasional, Jakarta, Indonesia
[2] Psychiatric and Community Nursing, Faculty of Health Sciences, Universitas Hang Tuah, Pekan Baru, Indonesia

Corresponding author: nurfajariyah@civitas.unas.ac.id

ARTICLE INFO	ABSTRACT
	Diabetes Mellitus (DM) and its complications pose a serious public health problem if not treated properly, notably diabetic ulcers, as they require a substantial amount of money and long-term treatment, sometimes up to 15 to 20 times, making amputation more likely. Approximately 14% to 24% of diabetic ulcer patients end up requiring amputation, with statistics revealing that every 30 seconds, someone loses their lower extremities due to diabetes-related diabetic ulcers. The aim of this study was to examine the relationship between family support and the quality of life in diabetic ulcer patients. The research methodology employed a cross-sectional approach using descriptive quantitative methods. Total sampling was utilized since the population was less than 100, with only 24 respondents selected for this study. The results indicated no significant relationship between family support and the quality of life, with a p-value of 0.292 (P> 0.05). Based on the results discussed in this study, it can be concluded that there is no significant relationship between family support and the quality of life in diabetic ulcer patients, as indicated by the p-value analysis result of 0.292 > 0.05.
	Keywords: Amputation**,** Family support, Quality of life, Ulcer patients

1. Introduction

Diabetes Mellitus (DM) is a persistent condition that disturbs the pancreas, rendering it incapable of producing insulin or using the insulin it generates effectively (International Diabetes Federation, 2023). Insulin, a hormone produced by the pancreas's beta cells, is crucial for regulating blood sugar levels to always maintain normalcy (Kemenkes RI, 2022). Individuals with DM commonly experience increased appetite, frequent thirst, nocturnal urination, and tingling in the feet (Kemenkes RI, 2023).

The prevalence of DM among 18-year-olds rose from 4.7% in 1980 to 8.5% in 2014. In 2016, an estimated 1.6 million deaths were attributed to DM, with 2.2 million deaths in 2012 linked to high blood sugar alone (WHO, 2023). Indonesia, ranked sixth among Southeast Asian countries, has 6.2% of DM cases within the 20-79 age range (WHO, 2022).

Data from the Basic Health Research (RISKESDAS) indicates a significant increase in DM prevalence, rising from 6.9% in 2013 to 8.5% in 2018. Nationally, DKI Jakarta leads with a 3.4% DM incidence rate, while Central Sulawesi occupies the 10th place with 2.2%. Estimates suggest up to 16 million people in Indonesia have DM, with a projected 4 million individuals expected to suffer from diabetic ulcers (Kemenkes RI, 2018).

Based on Bogor surveillance data in 2020, the total percentage of people with diabetes mellitus (DM) is 17,431, and the number continues to increase in 2021, reaching 17,801. This is attributed to lifestyle factors,

including insufficient physical activity, smoking, and an unbalanced diet characterized by excessive sugar consumption (Awaludin, 2022).

Diabetic ulcers, infection, amputation and death are serious complications of DM and require significant costs and long treatment (Decroli et al., 2019). The incidence rate of diabetic ulcers is around 25% of the existing population of DM sufferers. Foot ulcers in diabetics are caused mainly by neuropathy (motor, sensory, and autonomic) and ischemia, as well as complications from infection. Diabetes Mellitus and its complications pose a significant public health challenge when not adequately addressed, particularly with diabetic ulcers, as they demand substantial financial resources and prolonged treatment (Decroli et al., 2019).

Drawing from Lestari (2013), hospital treatment is necessitated for 80% of Diabetes Mellitus patients with diabetic ulcers. Those afflicted by diabetic ulcers in Indonesia face substantial financial burdens, ranging from Rp. 1.3 million to Rp. 1.6 million per month and 43.5 million per year for an individual sufferer.

In a separate study by Suriya (2016), findings indicated a poor quality of life at 61.6% and inadequate family support at 66.3% among 86 respondents. The insufficient support hinders respondents from achieving an improved quality of life, potentially stemming from families being preoccupied with their respective occupations. The analysis demonstrates a discernible correlation between family support and quality of life, as evidenced by a p-value of 0.03, which is less than 0.05. Nurses play a pivotal role in the education and motivation of patients, aiming to enhance their quality of life and provide nursing care to address potential challenges stemming from the impact of the disease (Bilous et al., 2021).

The research objective to determine the relationship between family support and the quality of life in patients with diabetic ulcers.

2. Methods

This research used a quantitative research approach with a cross-sectional research design to examine the relationship between the quality of life and family support in patients with diabetic ulcers. The study was conducted at the Wocare Clinic Bogor from April 2023 to August 2023, spanning the period from title submission to research implementation. The study population consisted of respondents with diabetic ulcers at the Wocare Bogor Clinic.

A total sampling technique was used since the population was less than 100, resulting in a sample size of 24 respondents. Following Sugiyono's perspective (2019), when the total population is less than 100, the entire population serves as the research sample.

Inclusion criteria were respondents with diabetes mellitus and diabetic ulcers, age between 35-70 years, regardless of gender, willing to become respondents, residing with family, ability to read and write and not currently undergoing hospital treatment. Exclusion criteria were subjects with diabetic ulcers experiencing complications such as sepsis, unwillingness to be a respondent and subjects with decubitus ulcers.

Research instrument used The WHOQOL-BREF serves as a questionnaire tool assessing quality of life across four domains: physical health, psychology, social relations, and the environment. Scores within each domain are oriented positively, signifying higher quality of life with elevated scores. The scale spans from 0 to 100, where a higher value corresponds to a superior quality of life. Comprising 26 questions, the WHOQOL-BREF ranges from a minimum score of 1 to a maximum of 5. Among these questions, 23 are positive (numbers 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25), rated as very bad=1, bad=2, so-so=3, good=4, and very good=5. Additionally, the questionnaire includes three negative questions (numbers 3, 4, and 26) scored as not at all=5, a little=4, moderate=3, very often=2, and excessively=1. Results are calculated, and interpretations are made using quality of life score criteria: poor (21-40), quite bad (41-60), quite good (61-80), and good (81-100) (Munazi, 2022). The WHOQOL-BREF questionnaire underwent validity testing by Wardhani (Laritmas & Ambarwati, 2020), showing a significant relationship between item scores and dimension scores (r=0.409-0.850) and a Cronbach's Alpha of 0.8756.

3. Results

3.1. Univariate analysis

Table 1 Univariate analysis

Distribution	n	%
Age		
36-45 year	3	12.5

Table 1 Continued

Distribution	n	%
46-55 year	8	33.3
56-65 year	11	45.8
> 65 year	2	8.3
Gender		
Man	11	45.8
Woman	13	54.2
Marital Status		
Marital	9	37.5
Divorce and Died	15	62.5
Quality of Life		
Quite Good	17	70.8
Quite Bad	7	29.2
Family Support		
Good	23	95.8
Bad	1	4.2

According the tabulated research findings, the average age of respondents was 56 years, ranging from 39 to 67 years. Most respondents fell within the age range of 56 to 65 years, constituting 11 individuals (45.8%). Regarding gender distribution, woman outnumbered men, comprising 13 respondents (54.2%). Marital status distribution revealed that the most prevalent statuses were divorced or deceased, accounting for 15 respondents (62.5%). Examination of the quality of life divorced or deceased, accounting for 15 respondents that 17 respondents (70.8%) reported a quality of life frequency results from table 4 indicated that 17 respondents (70.8%) reported a quite good quality of life, while 7 respondents (29.2%) described their quality of life as quite bad. Furthermore, based on the data in table 5, it was observed that 23 respondents (95.8%) experienced good family support, while only 1 respondent (4.2%) reported poor family support.

3.2. Bivariate analysis

Table 2 Relationship between quality of life and family support

Family Support	Quality of Life						P-Value
	Quite Good		Quite Bad		Total		
	N	%	N	%	N	%	
Good	17	73.9	6	26.1	23	100	0.292
Not Enough	0	0	1	100	1	100	

According to the data in table, it was identified that family support significantly influenced the quality of life, with a substantial proportion of 17 respondents (73.9%) reporting a high level. However, the bivariate analysis yielded a p-value of 0.292, with surpasses the threshold of 0.05. this outcome supports the acceptance of the null hypothesis (Ho), indicating no statistically significant relationship between family support and quality of life.

4. Discussion

In this study, it was determined that there is no correlation between family support and the quality of life found that there was no relationship between family support and quality of life in diabetic ulcer patients at the Wocare Bogor Clinic, as indicated by a P-value Analysis result of 0.292 which is greater than 0.05 discrepancies in respondent numbers and research locations compared to previous studies were observed. During the research, it was noted that families played an active role in wound care for the respondents, despite expressing time constraints due to their professional commitments. This aligns with the finding on marital status frequencies in this study, where 15 respondents (62.5%) were divorced, and 9 respondent (37.5%) were married, the majority of whom were divorced and residing with their children. According to

theoretical perspectives, internal family support primarily stems from the spouse (Rahmawati & Rosyidah, 2020). This implies that individuals tend to feel more supported when they have a partner.

Some participants expressed concerns about being a burden to their families if they sought assistance. Despite receiving extensive material support from their families, additional factors, like a need for emotional care, play a role in echancing the patient's quality of life. The hope is that families can offer more attention and motivation on their ailing members, fostering a sense of love and care, ultimately leading to an improved quality of life for the patients.

This research is not in line with Wetiningyas who demonstrated a relationship between family support and quality of life in Semarang City with 31 respondents and obtained a p-value of 0.44 < 0.05. additionally, Gunawan (2018) research, whice 48 respondents and identified 21 respondents with poor quality of life, and 4 respondents with good quality of life, obtained a p-value 0.001 < 0.05, indicating a relationship between family support and quality of life. This relationship can be interpreted as the extent to which an individual perceives a subjective assessment of various dimensions, including emotional well-being, physical health, socialization ability, or the experience of happiness.

In this study, the author acknowledges the research limitation and weakness, particularly the omission of wound grade analysis due to sample limitations.

5. Conclusion

Based on the results of the discussion in this study, it can be concluded that **t**here is no significant relationship between family support and quality of life in diabetic ulcer patients at the Wocare Bogor Clinic, as indicated by the p-value analysis results of 0.292 > 0.05.

References

Awaludin, Y. (2022). Penderita Diabetes di Kota Bogor Terus Bertambah, Didominasi Kaum Wanita. Retrieved April 22, 2023, from https://www.radarbogor.id/2022/09/29/penderita-diabetes-di-kota-bogor-terus-bertambah-didominasi-kaum-wanita/#:~:text= Di tahun 2020 jumlah pengidap DM berjumlah 17.431,tahun ke atas yang dengan proporsi 74%2C7 persen.

Bilous, R., Donnelly, R., & Idris, I. (2021). *Handbook of Diabetes*. New Jersey: John Wiley & Sons.

Decroli, E., Alexander, K., Yanne, P. ., Garri, P. ., & Afdol, R. (2019). *Diabetes Melitus Tipe 2* (1st ed.). Padang: Fakultas Kedokteran Universitas Andalas.

Gunawan, D. N. U. R. (2018). *Hubungan Strategi Koping Dengan Kualitas Hidup Caregiver Keluarga Penderita Skizofrenia Di RSJ Dr Radjiman Wediodiningrat Lawang*. Malang: Universitas Airlangga.

International Diabetes Federation. (2023). About Diabetes. Retrieved April 22, 2023, from https://idf.org/aboutdiabetes/what- is-diabetes.html

Kemenkes RI. (2018). *Hasil Utama Riskesdas*. Jakarta: Badan Penelitian dan Pengembangan Kesehatan Kemeterian RI.

Kemenkes RI. (2022). Memahami Prinsip Terapi Injeksi Insulin. Retrieved April 30, 2023, from https://yankes.kemkes.go.id/view_artikel/2104/mengenal-cara-pemakaian-insulin-yang-praktis-dan-mudah#:~:text= Terapi insulin harus bersifat individual dan diseimbangkan dengan,yang diberikan dapat bermanfaat untuk para sobat sehat.

Kemenkes RI. (2023). Diabetes Mellitus Tipe 2. Retrieved April 30, 2023, from https://yankes.kemkes.go.id/view_artikel/1861/diabetes-mellitus-tipe-2

Laritmas, P. E. E., & Ambarwati, K. D. (2020). Perbedaan Kualitas Hidup Pada Wanita Menopause Yang Bekerja Dan Tidak Bekerja. *Jurnal Selaras: Kajian Bimbingan Dan Konseling Serta Psikologi Pendidikan*, *3*(1), 11–26. https://doi.org/10.33541/Jsvol2iss1pp1

Lestari, M. A. (2013). Gambaran Distribusi Faktor Risiko pada Penderita Ulkus Diabetika di Klinik Kitamura PKU Muhammadiyah Pontianak. *Jurnal Mahasiswa PSPD FK Universitas Tanjungpura*, *3*(1), 1–17. Retrieved from https://jurnal.untan.ac.id/index.php/jfk/article/view/4142/4170

Munazi, A. (2022). *Gambaran Kualitas Hidup Anak Di Masa Pandemi Covid-19*. Semarang: Universitas Islam Sultan Agung.

Rahmawati, I. M. H., & Rosyidah, I. (2020). *Modul Terapi Family Psycoeducation (FPE) Untuk Keluarga: Mengatasi Masalah-Masalah Psikologis Keluarga*. Jakarta: Media Nusa Creative (MNC Publishing).

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif R&D*. Bandung: Alfabeta.

Suriya, M. (2016). Faktor –Faktor Yang Berhubungan Dengan Kualitas Hidup Pasien Diabetes Mellitus Di Puskesmas Lubuk Buaya Padang Tahun 2016. *The Shine Cahaya Dunia S-1 Keperawatan*, *1*(2), 9–17. Retrieved from https://ejournal.annurpurwodadi.ac.id/index.php/TSCS1Kep/article/view/74/82

WHO. (2022). Integrated Care For Tuberculosis and Diabetes Mellitus Comorbidity in Asian Countries"

Health System Challenges and Oppurtunities. Asia Pasific Observatory on Health Systems and Policies. Retrieved April 22, 2023, from https://www.who.int/news-room/fact-sheets/detail/diabetes

WHO. (2023). Diabetes. Retrieved April 22, 2023, from https://www.who.int/news-room/fact-sheets/detail/diabetes