

# The relationship between family support and the level of distress in type 2 diabetes mellitus patients

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## The relationship between family support and the level of distress in type 2 diabetes mellitus patients

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### Abstract

**Background:** Diabetes mellitus is a chronic disease with an increasing number of sufferers each year. Diabetes without comprehensive treatment not only affects physical health but also affects the mental health of sufferers, including diabetes distress. Diabetes distress can affect the quality of life of sufferers if not treated properly. Education on self-care management and social support, especially from family, can improve patients' clinical outcomes, psychosocial well-being, and decision-making abilities. The role of family support as a support system and collaborator in healthcare contributes to increased self-efficacy in self-care and can reduce distress levels for diabetes patients.

**Purpose:** To determine the relationship between family support and distress levels in patients with type 2 diabetes mellitus.

**Method:** This study was conducted in July 2025 using descriptive quantitative research. The respondents in this study consisted of 30 type 2 diabetes mellitus patients who visited the Lesteri Mulyo 3 Health Center in Dukuh Joholor Triyagan Mojolaban Sukoharjo, Central Java. The technique used in this study was accidental sampling, and the instruments used were a demographic data questionnaire, a diabetes distress scale questionnaire, and a Hensarling Diabetes Family Support Scale (HDFSS) questionnaire. Data analysis in this study used the Chi-Square test.

**Results:** Most respondents received good family support. Based on the results of the family support relationship analysis test, a p-value of 0.01 was obtained. A significance value of less than 0.05 means that the research hypothesis states that there is a significant relationship between family support and the level of distress in diabetes patients.

**Conclusion:** Family support significantly affects the level of distress in patients with type 2 diabetes mellitus.

**Keywords:** Diabetes Distress; Family Support; Type 2 Diabetes Mellitus.

### INTRODUCTION

Health is a fundamental aspect of human life. It determines productivity, quality of life, and even the desire to live in society (Lu, Yang, Ying, & Lin, 2025). With the rapid advancement of science and technology, the challenges facing the modern healthcare world are becoming increasingly complex, encompassing not only physical health but also psychological health, which is

often overlooked (Bolton, 2023). Type 2 diabetes mellitus is a chronic disease that poses a global challenge to the medical world in terms of glycaemic management, but it can also have a broad impact on sufferers in terms of their quality of life and, most importantly, their mental health (Ajele & Idemudia, 2025). People with diabetes mellitus are highly

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vulnerable to anxiety and worry about complications from their disease (Wei, Zhang, Tai, Weng, Wang, & Zhu, 2025). Diabetes mellitus patients who experience excessive anxiety without proper psychological treatment can develop diabetes distress, which is an emotional condition experienced by diabetes mellitus patients caused by the psychological burden of managing their diabetes (Sinabutar, Suri, & Ariada, 2022).

Diabetes distress reflects feelings of stress, anxiety, and even despair among diabetes patients regarding their chronic, complex, and prolonged disease management while living with diabetes mellitus and its complications. This requires critical attention in managing diabetes patients (Sinha, Priya, Sinha, & Hifz Ur Rahman, 2024). Recent studies have revealed that family support plays a crucial role in alleviating diabetes distress. Family support can provide motivation and adherence for patients in undergoing treatment and therapy for diabetes, enabling them to modify their lifestyle and improve their quality of life (Amani, Nazari, Sanaie, Abbasi, & Borhani, 2025). Many diabetes patients face limitations in social support, particularly family support in their living environment. It is regrettable that the lack of family support can negatively impact their ability to manage their glycaemic control (Sundari, Suhartini, Solikin, & Fitriksari, 2024). This phenomenon creates an urgent need to explore in depth the extent to which family support provides support and motivation for people with diabetes in facing the psychological pressures caused by the management and complications of their diabetes (Zu, Zhang, Du, Huang, Nie, & Wang, 2023).

Based on previous research on identifying the relationship between family support and distress levels in elderly type 2 diabetes patients in Ancaran Village in the Kuningan Community Health Center working area in 2023, which was participated in by 30 respondents, the results showed that most respondents received good family support, namely 17 respondents (56.7%), and most respondents experienced moderate distress, namely 15 respondents (50.0%). The Spearman's rank correlation test showed a significant relationship between family support and distress levels ( $p$  value =

0.000 and  $r = 0.7772$ ), indicating that there is a relationship between family support and distress levels among elderly patients with type 2 diabetes mellitus (Nugraha, Ramdhani, & Utami, 2023). A study was conducted on interventions for families of diabetes patients who underwent structured education for 3 months at a community health center, consisting of four sessions per month for three months (Schmidt, van Loon, Vergouwen, Snoek, & Honig, 2018). The study showed changes in distress levels among diabetes patients before the intervention was conducted on their family members. Before receiving family support, 13 respondents (94.06%) experienced severe distress and 13 respondents (40.6%) experienced moderate distress. After receiving family support, 13 respondents (40.6%) no longer experienced distress, and only 6 respondents (18.80%) experienced severe distress. Family support has an impact on the distress experienced by diabetes patients. This is because the support provided by the family can motivate patients and make them feel cared for and loved, and diabetes patients gain confidence in facing their illness without worry or anxiety (Rahmi, Malini, & Huriani, 2019).

## RESEARCH METHOD

The design of this study is descriptive quantitative. The variable of this study is the relationship between family support and the level of distress experienced by patients with type 2 diabetes mellitus. This study was conducted to examine the relationship between family support and the level of distress in patients with type 2 diabetes mellitus at the Lestari Mulyo 3 Health Center in Dukuh Joholor Triyagan, Mojolaban, Sukoharjo, Central Java. Sampling in this study was accidental sampling. The inclusion criteria were all patients diagnosed with type 2 diabetes mellitus, male and female respondents, aged over 40 years, with or without complications, and the exclusion criteria were patients with hemodynamic disorders and patients who could not communicate well. The study was conducted in July 2025.

The instruments used in this study were a demographic questionnaire and a diabetes distress scale questionnaire. The instrument used to determine family support in this study was the Henssarling

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Diabetes Family Support Scale (HDFSS) questionnaire. The Henssarling Diabetes Family Support Scale (HDFSS) instrument was developed by Jeb Hensarling and translated and modified by Yusra. This questionnaire contains 4 indicators, namely the emotional dimension consisting of 10 items, the appreciation dimension consisting of 8 items, the instrumental dimension consisting of 8 items, and the information dimension consisting of 3 items (Yusra, 2021). The Diabetes Distress Scale (DSS) instrument can be used for people with diabetes who have a

tendency to experience stress. This instrument was created by Polonsky in 2005 and modified by Arifin in 2017. The DSS instrument is divided into 4 dimensions, namely the emotional dimension, difficulties related to health workers, burdens related to treatment and care, and burdens related to interpersonal relationships. The DSS instrument contains 17 questions, each of which is measured using a 1-6 Likert scale. In the assessment, the higher the score, the higher the level of diabetes distress experienced by the patient. This study used bivariate analysis, specifically the Chi-Square test.

## RESEARCH RESULTS

Table 1. Distribution of Respondent Characteristics (N=30)

Variable	Results	P-Value
<b>Gender (n/%)</b>		
Male	18/60.0	
Female	12/40.0	
<b>Education (n/%)</b>		
Elementary School	7/22.0	
Junior High School	9/30.0	
Senior High School	14/48.0	
<b>DM Complications (n/%)</b>		
Complications present	16/56.0	
No complications present	14/44.0	
<b>Treatment Regimen(n/%)</b>		
Regularly Taking Medication	12/40.0	
Not Taking Medication Regularly	18/60.0	
<b>Family Support (n/%)</b>		
Good	20/67.0	
Poor	10/33.0	0.01
<b>Distress Level (n/%)</b>		
Mild	15/50.0	
Moderate	9/30.0	
Severe	6/20.0	

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This table presents the distribution of respondents based on gender, education level, diabetes mellitus complications, treatment regimen, family support, and distress level. Most respondents were male (60.0%), had a senior high school education (48.0%), experienced complications (56.0%), and did not take medication regularly (60.0%). The majority reported good family support (67.0%), which showed a statistically significant association ( $p = 0.01$ ). Distress levels were predominantly mild (50.0%), followed by moderate (30.0%) and severe (20.0%).

## DISCUSSION

There were 30 respondents who participated in this study, with more male respondents than female respondents. Most respondents experienced mild distress, and the support provided by families to diabetic patients was mostly good. The results of this study can be concluded that respondents who received attention and support from their families could influence distress in patients with type 2 diabetes mellitus (Farm, Perwitasari, Thobari, Cao, Krabbe, & Postma, 2017).

In this study, 11 respondents received good family support, so that in this study there was a significant relationship between family support and diabetes distress, namely a significant but negative relationship between family support and the occurrence of diabetes distress (Perrin, Bodicoat, Davies, Robertson, Snoek, & Khunti, 2019). In this study, respondents who received good support from their families. Diabetes distress can affect the quality of life of patients; this is the result of the amount of support received by patients from their families, which can increase or decrease the occurrence of distress for patients with type 2 diabetes mellitus (Parviniannasab, Faramarzian, Hosseini, Hamidizadeh, & Bijani, 2024).

Good family support can influence lower levels of patient distress (Shimu, Akter, Rahman, Arbee, Mohiuddin, Sazzad, & Uddin, 2025). Diabetes mellitus patients require lifelong treatment, which is highly dependent on the treatment carried out by the patient. Therefore, patients must accept their illness and manage the treatment they will undergo. In undergoing lifelong treatment, patients greatly need both physical and psychological support, especially in providing motivation and support for the success of treatment. This will provide a support system and boost the patient's immunity so that they can avoid diabetes distress (Bhaskara, Budhiarta, Gotera, Saraswati, Dwipayana, Semadi, & Suastika, 2022).

The role of family support greatly influences the patient's psychology in overcoming health problems. It can even motivate patients to reduce their anxiety levels. With reduced anxiety, patients feel comfortable and calm in living their lives, thereby improving the quality of life of diabetic patients (Pamungkas, Chamroonsawasdi, & Vatanasomboon, 2017). Patients with chronic diseases such as type 2 diabetes mellitus greatly need family support in the form of spiritual and emotional motivation because the impact is not only on physical health but also psychological health, which can include anxiety and depression. Family support in the form of appreciation, understanding, attention, as well as motivation and encouragement can help patients overcome the challenges they face in their lives (Leukel, Kollin, Lewis, & Lee, 2022).

## CONCLUSION

Most respondents in this study, 20 respondents (67%), received good family support. Most respondents experienced mild distress, with 15 respondents (50%). There was a relationship between family support and the level of distress in patients with type 2 diabetes mellitus, as obtained from the Chi-square test with a p-value of 0.01 or less than the alpha value ( $\alpha = 0.05$ ).

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