



THE ROLE OF FAMILY SUPPORT IN ENHANCING THE QUALITY OF LIFE OF PATIENTS WITH DIABETES MELLITUS: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Diabetes Mellitus (DM) is a chronic disease that significantly affects not only patients' physical health but also their psychological and social well-being. Quality of life (QoL) has become a critical outcome in diabetes care, as it reflects the overall impact of the disease and its management on patients' daily lives. Family support is considered a crucial factor that can enhance patients' ability to cope with DM and improve their QoL. This study aims to systematically review recent literature on the role of family support in enhancing the quality of life of patients with DM. A systematic literature review was conducted using electronic databases including PubMed, ScienceDirect, ProQuest, and Google Scholar, with publications selected from 2019 to 2025. The study applied the PRISMA protocol and the PICOS framework to identify, screen, and analyze relevant articles. Ten observational studies that met the inclusion criteria were included in the final analysis. The findings indicate that various forms of family support—emotional, instrumental, and informational—positively influence treatment adherence, psychological resilience, and self-management behaviors, ultimately improving the quality of life of DM patients. The review highlights the importance of integrating family-based strategies into community and primary healthcare practices. Further research is recommended to develop and evaluate culturally sensitive, family-centered intervention models that can sustainably support patients living with DM.

Keywords: Diabetes Mellitus, Family Support, Patients, Quality of Life

Introduction

Diabetes Mellitus (DM) remains a major global health concern with increasing prevalence, contributing significantly to morbidity, mortality, and healthcare burden (Budianto et al., 2022; Sahat, 2025). Beyond its metabolic

complications, DM affects patients' psychological, social, and economic well-being (Chowdhury et al., 2024; Mangoulia et al., 2024). The chronic nature of the disease demands strict and sustained treatment regimens, including medication adherence and lifestyle



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modifications. Without adequate psychosocial support, these demands often result in poor quality of life (QoL). In Indonesia, the 2018 Riskesdas data shows an upward trend in DM prevalence, accompanied by high rates of treatment non-adherence and complications (Balgis et al., 2022). This reinforces the need for addressing non-clinical aspects—particularly family support—in diabetes management. While clinical interventions are essential, they are often insufficient to support long-term behavior change. Thus, focusing on social factors such as family involvement becomes crucial in improving patient outcomes, especially QoL.

Despite the growing recognition of the psychosocial burden of DM, most existing literature has focused primarily on medical aspects like pharmacotherapy and glycemic control (Salsabila et al., 2023). Although several studies have acknowledged the role of social support in self-management and treatment adherence, few have examined the specific contributions of family support in a structured and comprehensive manner (Galuh & Prabawati, 2021; Khairani & Purwanti, 2023; Mardhatillah et al., 2022). The study by Salsabila et al. (2023) emphasized the correlation between emotional and instrumental family support with improved QoL, but broader, cross-cultural reviews remain scarce. Furthermore, studies that compare various dimensions of family support—emotional, informational, and instrumental—are limited. This gap in the literature suggests an urgent need for

a focused synthesis to understand how different types of family support impact patients' QoL across diverse cultural and socioeconomic contexts. This study addresses that gap by systematically reviewing recent evidence to support the integration of family-centered care models into diabetes management.

Therefore, this study aims to systematically explore the role of family support in enhancing the quality of life of patients with Diabetes Mellitus. It addresses the key research question: What types of family support significantly impact the QoL of DM patients, and through what mechanisms? By reviewing empirical studies from 2019 to 2025, this paper identifies consistent themes and gaps in the literature that can inform nursing practices and health policies. Previous research has shown that family support influences self-management behavior, psychological resilience, and treatment adherence (Olagbemide et al., 2021; Setyoadi et al., 2023; Newson et al., 2025; Parviniannasab et al., 2024). However, a comprehensive review of these influences within a quality-of-life framework is still lacking. This study contributes to the growing discourse on holistic diabetes care by advocating for family-inclusive interventions. Ultimately, the goal is to provide a strong scientific basis for designing culturally relevant and evidence-based programs that empower families to actively support DM patients.

Methods

This study employed a systematic literature review design to

identify and synthesize recent research on the role of family support in enhancing the quality of life (QoL) of patients with Diabetes Mellitus (DM). The search was conducted using four electronic databases: PubMed, ScienceDirect, ProQuest, and Google Scholar. Articles were limited to those published between 2019 and 2025, in either English or Indonesian, and available in full text.

The review followed the PICOS framework:

- **Population (P):** patients diagnosed with Diabetes Mellitus
- **Intervention (I):** various forms of family support (emotional, instrumental, informational)
- **Comparison (C):** patients with minimal or no family support
- **Outcome (O):** quality of life (physically, psychologically, and socially)
- **Study design (S):** observational studies, including cross-sectional, cohort, and case-control

A Boolean operator was used in combining the following keywords: *"family support" AND "quality of life" AND "diabetes mellitus" OR "type 2 diabetes" OR "social support"*. Inclusion criteria were: (1) articles published in the last 8 years, (2) full text available, (3) published in reputable journals, and (4) studies that specifically examined the relationship between family support and QoL in DM patients. Exclusion criteria included: (1) review articles or meta-analyses, (2) studies not targeting DM populations, or (3) studies lacking explicit measurement of family support.

The article selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol. A total of 600 articles were initially identified. After screening based on title and abstract, 105 were excluded due to publication year or irrelevance. The remaining 80 articles underwent abstract review, of which 60 were excluded for not meeting the topic criteria. Full-text screening was conducted on 20 articles, and 10 were included in the final analysis.

as presented in Figure 1 (PRISMA Diagram).

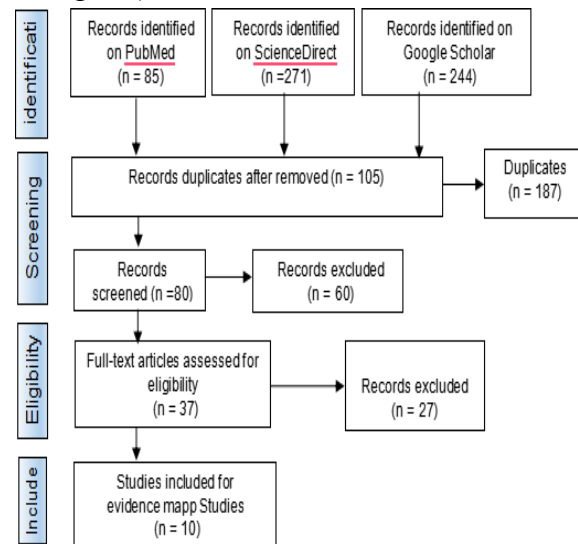


Figure 1. Diagram PRISMA

Results

Emotional Support and Psychological Well-being

Several studies highlighted that emotional support from family members significantly improves patients' psychological resilience and adherence to treatment. Olagbemide et al. (2021) reported that patients with strong emotional support had significantly better glycemic control (OR = 17.4; $p < 0.001$). Setyoadi et al. (2023) also found



that adaptive emotional coping strategies were strongly associated with improved quality of life ($p = 0.000$; $r = 0.447$). Emotional encouragement reduces distress, enhances motivation, and provides a sense of security during disease management (Newson et al., 2025).

Informational Support and Self-Management

Informational support, including reminders, health literacy assistance, and shared decision-making, was shown to improve patient self-efficacy and diabetes self-care. Studies such as Wang et al. (2024) and Panagiotidis et al. (2025) emphasized that knowledge provided by family members helps patients build confidence in managing their disease. Informational support also acts through self-efficacy as a mediator to influence health behavior.

Instrumental Support and Daily Functioning

Instrumental support—such as helping with medication, preparing meals, and assisting in physical activities—was consistently associated with improved QoL. Tamornpark et al.

(2022) found that patients living with family had a significantly better quality of life. In patients with complications, such as diabetic ulcers, family members provided vital physical assistance (Yuliastuti et al., 2022).

Family Involvement in Educational Interventions

Panagiotidis et al. (2025) demonstrated that educational programs involving families lead to improved HbA1c levels, health literacy, and overall diabetes management. The study showed that active family participation in education strengthens long-term behavior change, especially when tailored to the patient's health literacy level.

Cultural and Contextual Influences on Family Roles

Cultural values strongly influence the role of family support. In collectivist cultures like Indonesia and Thailand, close family involvement is the norm and significantly contributes to care (Setyoadi et al., 2023; Tamornpark et al., 2022). Meanwhile, studies from Western settings emphasized structured programs to engage families, such as those evaluated by Hawton et al. (2025) in England and Wales.



Tabel 1. Summary of Key Roles of Family Support

No	Role of Family Support	Impact on Patients	Key References
1	Emotional Support	Improves motivation, reduces stress	Olagbemide et al., 2021; Setyoadi et al., 2023
2	Informational Support	Enhances self-efficacy, better self-care	Wang et al., 2024; Panagiotidis et al., 2025
3	Instrumental Support	Improves treatment adherence and daily functioning	Tamornpark et al., 2022; Yuliastuti et al., 2022
4	Involvement in Education	Better glycemic control, sustained behavior change	Panagiotidis et al., 2025
5	Cultural/Contextual Influence	Shapes family roles and patient reliance	Setyoadi et al., 2023; Hawton et al., 2025

Several studies have shown that family support plays an important role in improving the quality of life of patients with type 2 diabetes mellitus. This support not only improves adherence to treatment but also directly impacts better glycemic control, as evidenced in the study by Olagbemide et al. (2021) with significant results (OR > 16; p<0.001). Another study by Setyoadi et al. (2023) adds that adaptive coping strategies from the family significantly enhance the quality of life of patients, indicating that not only physical and material support but also the emotional stability of the family contribute to the patients' well-being. In general, the quality of life of diabetes patients is greatly influenced by the presence of a strong family support system, which provides motivation and a sense of security in the disease management process. Not only in emotional and psychosocial aspects, family support has also been proven to enhance the self-management

abilities of diabetes patients, which is key in preventing complications and maintaining quality of life. A study by Rondhianto et al. (2020) underscores that the role of the family as informal caregivers can strengthen patients' self-management, provided there is adequate knowledge of diabetes, motivation, and coping. Wang et al. (2024) expanded on these findings by showing that family social support can enhance self-efficacy and patient self-management practices, which in turn contributes to quality of life. Self-efficacy even acts as an important mediator in linking social support with patient health outcomes. This shows that the impact of family support operates through complex psychological and behavioral pathways. Other research highlights the important role of family support in the context of diabetes complications and healthcare needs. In the study by Yuliastuti et al. (2022), patients with foot ulcers who



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received information and support from their families showed a better quality of life compared to those who did not. Similarly, research by Yildiz Aslan et al. (2021) found a significant correlation between the perception of quality of life and the intensity of family support, particularly in the aspect of daily family relationships. This support becomes increasingly vital when patients experience complications, as they require more intensive physical and emotional assistance in self-care and coping with changes in body function due to the disease.

In the perspective of intervention, experimental research by Panagiotidis (2025) emphasizes the effectiveness of family-based education programs tailored to the patient's health literacy level. This intervention not only successfully improved glycemic control and self-efficacy but also demonstrated that active family involvement in the education process is key to achieving diabetes management targets. These results support a holistic approach that involves the family as part of the patient's therapy system, rather than just a passive companion. Such interventions prove that educational collaboration between patients and their families has a significant impact on the quality of life and clinical outcomes of diabetes patients.

Socio-demographic aspects and cultural context also influence the extent to which family support plays a role in improving patients' quality of life. A study in Northern Thailand by Tamornpark et al. (2022) shows that living with a partner or family is one of

the factors that increases the likelihood of a good quality of life, in addition to other factors such as income, physical activity, and government support. A similar finding was observed in Ghana by Adu et al. (2024), where social support was associated with diet and self-management, although it did not automatically guarantee optimal glycemic control. This indicates that family support should be combined with ongoing educational strategies to have the maximum impact.

Finally, family support also shapes patients' perceptions of healthcare services and care transitions, especially in younger age groups. Hawton (2024) in his research in England and Wales revealed that family involvement in the care of young patients with diabetes helps shape a positive experience with the services, although improved coordination between healthcare services, families, and educational institutions is still needed. This research expands the understanding that family support not only impacts clinical aspects but also the emotional and social readiness of patients in facing long-term changes, particularly during the transition phase towards independence in diabetes management.

Discussion

The main finding of this literature review reveals that family support—particularly emotional, informational, and instrumental support—plays a significant role in enhancing the quality of life (QoL) of patients with type 2 Diabetes Mellitus. Across the ten selected studies, strong



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family involvement was consistently associated with improved treatment adherence, better self-management, and reduced psychological burden (Olagbemide et al., 2021; Setyoadi et al., 2023; Yulastuti et al., 2022). This review emphasizes that QoL is influenced not only by medical care but also by patients' psychosocial environments, where the family acts as a buffer against disease-related stress. This finding supports previous studies (Galuh & Prabawati, 2021; Mangoulia et al., 2024) and underscores the need for integrating family-based strategies into diabetes care models.

The results also indicate that self-efficacy serves as a key mediating factor between family support and improved health outcomes, as found in Wang et al. (2024) and Panagiotidis et al. (2025). This aligns with Bandura's Self-Efficacy Theory, where patients who feel supported are more confident in managing their illness. Compared to prior reviews that focused mostly on clinical interventions, this study highlights the social context as a critical yet underexplored factor in DM management. Additionally, the study by Rondhianto et al. (2020) highlights how caregiver knowledge and coping styles can significantly affect patient outcomes. These insights expand on earlier work by Newson et al. (2025), who emphasized the psychological role of caregivers. Such perspectives reinforce the ecological model of health, where individual outcomes are shaped by close social environments.

Furthermore, this review identifies cultural differences in how family

support is perceived and provided. For example, studies from Indonesia and Thailand showed that collectivist family dynamics contribute more directly to patients' QoL compared to more individualistic Western settings (Tamornpark et al., 2022; Setyoadi et al., 2023). This suggests that intervention models should be culturally tailored. However, this review also found that strong family support does not automatically guarantee clinical success, such as optimal glycemic control, especially when other barriers exist, such as limited healthcare access or low health literacy (Adu et al., 2024). This reinforces the importance of multifactorial approaches that integrate family support with structured diabetes education and community-based care systems (Khairani & Purwanti, 2023; Chowdhury et al., 2024).

A novel contribution of this review is its synthesis of how various types of family support influence specific dimensions of QoL, including emotional well-being, physical function, and social integration. While past studies often focused narrowly on medication adherence or glycemic control, this review provides a broader view that incorporates psychosocial resilience and patient motivation as critical mediators. It also identifies gaps for future research, including the lack of longitudinal data and the need to test intervention models in different socio-economic settings. Given these findings, future studies should consider developing culturally adapted, family-centered care pathways that can be embedded in community nursing and primary care practices.



Conclusion

This study concludes that family support plays a critical role in enhancing the quality of life of patients with type 2 Diabetes Mellitus. Emotional, informational, and instrumental support from family members significantly improve patients' adherence to treatment, psychological well-being, and self-management behaviors. These findings highlight the importance of integrating family-based approaches into diabetes care. Healthcare professionals should design culturally appropriate interventions that actively involve families in supporting patients. Future research is recommended to evaluate the effectiveness of such interventions and explore alternative support systems for patients with limited family involvement.

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