

The Effect of Spiritual Emotional Freedom Technique (SEFT) Therapy on Blood Glucose Control in Patients with Diabetes Mellitus: The Supportive Role of Family Social Support at Community Health Centers in Pekanbaru City

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ABSTRACT

Diabetes mellitus (DM) is a chronic disease with a high prevalence, posing risks to physical, psychological, and social aspects of health. Optimal blood glucose control is essential to prevent long-term complications. In addition to pharmacological treatment, non-pharmacological interventions such as Spiritual Emotional Freedom Technique (SEFT) therapy and family social support are important strategies in DM management. This research was conducted at Community Health Centers (Puskesmas) in Pekanbaru City, involving a total of 59 respondents. This study employed a pre-experimental design using a one-group pre-test and post-test approach without a control group. The sample consisted of 59 DM patients selected through purposive sampling. Data were collected using blood glucose level measurements and a family social support questionnaire. The results showed that the majority of respondents received good family support (59.3%), and there was a significant positive correlation between family social support and the implementation of SEFT therapy (Spearman's coefficient = 0.512, $p = 0.001$). SEFT therapy significantly reduced patients' blood glucose levels. These findings highlight the important role of family social support in enhancing the effectiveness of therapy and metabolic control in DM patients. Conclusion: SEFT therapy has a significant effect in reducing blood glucose levels in DM patients, particularly when supported by strong family social support.

Keywords: Diabetes Mellitus, Spiritual Emotional Freedom Technique (SEFT), Family Social Support.

INTRODUCTION

Diabetes Mellitus (DM) is a chronic disease characterized by elevated blood glucose levels, which occur due to the pancreas's inability to produce insulin or the body's ineffective use of insulin (WHO, 2019). Type II diabetes mellitus is the most common form of diabetes, accounting for 85–90% of all DM cases, and it is frequently found in the elderly population (Arini et al., 2021).

DM continues to show a global increase in prevalence and is a major public health concern in Indonesia (Priyanto et al., 2021). It is marked by metabolic disorders resulting from insulin deficiency or resistance, leading to hyperglycemia and potentially serious acute or chronic complications if not properly managed (Helmi & Veri, 2024). Indonesia is projected to become one of the countries with the highest number of diabetes mellitus cases worldwide. According to the International Diabetes Federation (IDF), Indonesia ranked fifth in 2021 with 19.5 million DM cases, and this number is projected to rise to 28.6 million by 2045 (Ministry of Health, Republic of Indonesia, 2024).

Glycemic control is a key aspect of DM management. Maintaining optimal blood glucose levels can improve the disease condition, and regular monitoring of blood glucose levels is essential for effective management (Megawati, 2022). Elevated blood glucose levels can lead to the narrowing of blood vessels, which in turn impairs organ function and may eventually result in organ failure (Ni Nyoman, 2021). According to Soelistijo (2021), diabetes mellitus management involves education, medical nutrition therapy, physical activity, and pharmacological interventions. The four pillars for diabetes prevention and management include dietary management, health education, medications, and physical activity. The success of diabetes control strategies largely depends on patients' adherence to these four pillars (Trisnadewi et al., 2022). One emerging complementary intervention is the Spiritual Emotional Freedom Technique (SEFT), a relaxation method that combines tapping on the body's energy points with spiritual elements. SEFT has been shown to be effective in reducing stress and anxiety, which are recognized risk factors for elevated blood glucose levels in patients with DM (Patriyani & Rahayu, 2019). The family, as the closest social unit, plays a critical role in motivating, supervising, and assisting patients in managing dietary patterns, engaging in physical activity, and adhering to prescribed treatments. Studies show that the better the social support provided by the family, the better the patient's behavior in managing their blood glucose levels. Family support also contributes to greater self-acceptance of the disease, which positively impacts metabolic control and quality of life (Annida Dhuhani et al., 2021).

Family social support is thus a crucial factor in DM management. As the primary social environment, the family can enhance patient motivation, encourage regular monitoring, and improve the overall quality of life of DM patients (Sri Listia Utami, 2025). Rahayu et al. (2018) reported a significant correlation between family support and blood glucose levels, with higher levels of support associated with better glycemic control. Families play a key role in ensuring patient adherence to therapy. Indirectly, family support can

influence metabolic control by helping reduce stress and promoting effective self-management (Rahayu et al., 2018). Family support is considered an essential element in modifying health behavior patterns and sustaining a healthier condition (Safari et al., 2021). SEFT is a complementary therapy that integrates light tapping on the body's meridian points (similar to Emotional Freedom Technique) with spiritual and relaxation approaches. This therapy aims to reduce emotional and physical stress, which can exacerbate diabetes, by controlling stress-related hormones such as cortisol and epinephrine (Irawan Agustian et al., 2024). An experimental study using a one-group pretest-posttest design conducted on 30 patients with type 2 DM at Sultan Iskandar Muda Hospital in Nagan Raya demonstrated a significant reduction in random blood glucose levels after SEFT therapy (from a mean of 282 mg/dL to 276 mg/dL, $p=0.000$). These findings suggest that SEFT is an effective non-pharmacological intervention to help control blood glucose levels in type 2 DM patients (Irawan Agustian et al., 2024).

METHODS

This study employed a pre-experimental design using a one-group pre-test and post-test approach without a control group (Fauziah et al., 2023). The sample consisted of patients with Type 2 Diabetes Mellitus (T2DM) selected through purposive sampling based on inclusion criteria. Primary data were collected by measuring blood glucose levels before and after the SEFT (Spiritual Emotional Freedom Technique) intervention, as well as through a validated and reliable family social support questionnaire. This research was conducted at Community Health Centers (Puskesmas) in Pekanbaru City, involving a total of 59 respondents. Blood glucose levels were assessed using a standard glucometer, both pre- and post-intervention. The SEFT intervention was administered according to a standardized protocol, involving tapping on specific meridian points of the body and integrating spiritual elements to promote emotional and physical relaxation. Data analysis included the use of the Paired t-test to determine differences in blood glucose levels before and after the intervention, and correlation analysis to examine the relationship between family social support and the implementation of SEFT (Kadek, Purnamayanti, & Gayatri, 2022).

Table 1.
Sociodemographic Characteristics of Respondents (n = 59)

Variable	Category	f	%
Age	Adult	1	1.7%
	Pre-elderly	40	67.8%
	Elderly	18	30.5%
	Total	59	100%
Education Level	Primary School	9	15.3%
	Junior High School	15	25.6%
	Senior High School or Equivalent	27	45.8%
	Diploma/Bachelor's Degree	8	13.4%
	Total	59	100%
Occupation	Housewife	31	52.5%
	Civil Servant	5	8.5%
	Unemployed	3	5.1%
	Entrepreneur	2	3.4%
	Laborer	5	8.5%
	Private Sector Employee	10	16.9%
	Retired	3	5.1%
	Total	59	100%
Gender	Male	23	39%
	Female	36	61%
	Total	59	100%
Duration of Diabetes	>4 years	55	93.2%
	<4 years	4	6.8%
	Total	59	100%

Descriptive Analysis Based on Table 1
Respondent Age: The majority of respondents were in the pre-elderly age group (67.8%), followed by the elderly group (30.5%), and only a small proportion were classified as adults (1.7%). This indicates that the study population is predominantly composed of individuals who are approaching or have entered old age, a phase typically associated with higher risk of diabetes complications and declining physical function.
Education Level: Most respondents had completed senior high school or vocational education (45.8%), followed by junior high school (25.4%), primary school (15.3%), and diploma/bachelor's degree or equivalent (13.6%). Educational background plays an important role in influencing patients' understanding of diabetes and their ability to manage the disease effectively through health literacy and self-care behavior.
Occupation:

A large portion of respondents were housewives (52.5%), followed by private sector employees (16.9%), civil servants and laborers (8.5% each), and smaller proportions of entrepreneurs, retirees, and the unemployed. Occupational status may affect both the level of daily physical activity and access to healthcare services, which are crucial in diabetes

management. Gender:

There were more female respondents (61%) compared to males (39%). This could reflect gender differences in health-seeking behavior, where women are often more proactive in attending healthcare services and managing chronic illnesses. Duration of Diabetes Mellitus: The majority of respondents had been diagnosed with Type 2 Diabetes Mellitus for more than 4 years (93.2%), suggesting a population with long-term disease progression, which increases the risk of developing complications and necessitates more intensive and continuous management strategies. The respondent characteristics indicate a predominance of individuals in the pre-elderly and elderly age groups, with an educational background primarily at the secondary level or lower, and the majority identified as housewives. This demographic profile is important in understanding the social and educational context that may influence the respondents' ability to engage in effective diabetes self-management and respond to health education interventions.

Table 2
Family Support for Patients with Diabetes Mellitus (N = 59)

Family Support Category	Frequency (f)	Percentage (%)
Good	35	59.3%
Moderate	20	33.9%
Poor	4	6.8%
Total	59	100%

Description: A total of 35 respondents (59.3%) received *good* family support. This suggests that the majority of diabetes mellitus patients are receiving adequate support from their families, which is crucial in helping them manage their condition and improve their quality of life. 20 respondents (33.9%) received *moderate* family support, indicating that although the support is present, there remains room for improvement to ensure optimal disease management and adherence to treatment regimens. Only 4 respondents (6.8%) reported receiving *poor* family support, which may negatively impact treatment adherence, blood glucose control, and could increase the risk of diabetes-related complications.

Interpretation in Nursing Context: Family support is a critical factor in the comprehensive management of diabetes mellitus. Adequate family involvement can significantly enhance a patient's motivation and adherence to treatment plans, encourage healthy lifestyle modifications, and promote regular health check-ups. Conversely, insufficient support may lead to increased psychological stress, poor adherence, and a decline in the patient's overall well-being. Therefore, nursing

interventions that actively involve family members are highly recommended to optimize therapeutic outcomes in diabetes care (Zanzibar & Agung, 2023).

Table 3
Spearman's Correlation between Family Social Support and the Implementation of SEFT Therapy (N = 59)

	Family Social Support	Social	SEFT Implementation	Therapy
Family Social Support	Spearman's correlation	rho	1.000	
	Sig. (2-tailed)		—	
	N		59	
SEFT Therapy Implementation	Spearman's correlation	rho	0.512	
	Sig. (2-tailed)		0.001	
	N		59	

Interpretation in Nursing Context: Based on the table above, the Spearman's correlation coefficient of 0.512 indicates a moderate positive correlation between family social support and the implementation of Spiritual Emotional Freedom Technique (SEFT) therapy. The p-value of 0.001 (which is less than 0.05) signifies that this correlation is statistically significant. This means that the higher the level of family social support received by diabetes mellitus patients, the better their implementation of SEFT therapy tends to be.

These findings underscore the importance of family involvement in complementary therapy. In a nursing context, strong family support enhances emotional resilience, motivation, and therapeutic adherence in patients with chronic illnesses such as diabetes. Encouraging family participation in patient care can significantly contribute to the success of self-management interventions like SEFT.

DISCUSSION

This study demonstrates a significant positive correlation between family social support and the application of Spiritual Emotional Freedom Technique (SEFT) therapy among patients with diabetes mellitus. This finding indicates that the support provided by family members plays a crucial role in the success of patients in consistently and effectively undergoing SEFT therapy. Family social support encompasses emotional, instrumental, informational, and appraisal aspects, all of which are vital in assisting patients in managing chronic conditions like diabetes. Families offering strong support can enhance patients' motivation, adherence, and

confidence in managing their therapy, including alternative therapies like SEFT. Such support also helps reduce stress and anxiety commonly experienced by diabetes patients, thereby improving therapy effectiveness.

Family support is a significant factor related to therapy adherence. The support provided includes informational, instrumental, emotional, and appraisal support. The success of diabetes management heavily depends on the patient's motivation and self-awareness to implement self-care practices designed to control symptoms and prevent complications. Family support can influence patients' decision-making in implementing diet plans, indirectly affecting their coping mechanisms. Healthy coping strategies, such as increased coping skills, impulse control training, and decision-making support, are essential for diabetes clients to maintain health status and determine appropriate health practices.

Family support can also affect patients' decision-making in implementing diet plans, which indirectly influences their coping mechanisms. According to Dewi (2021), healthy coping strategies, such as increased coping skills, impulse control training, and decision-making support, are crucial for diabetes mellitus clients to maintain health status and determine appropriate health practices.

Family support can take the form of moral encouragement, assistance in implementing therapy, and providing a supportive environment for the patient. With such support, patients feel more confident and motivated to reduce stress and anxiety, which often trigger increased blood sugar levels. SEFT therapy itself is a relaxation technique that combines tapping on the body's energy points with spiritual elements, making its application highly influenced by the patient's psychological condition, which is supported by their social environment.

These findings align with previous research emphasizing the importance of social support in improving adherence and therapy effectiveness among diabetes mellitus patients. Additionally, family support contributes to enhancing patients' quality of life and preventing long-term complications associated with diabetes.

Based on the results of this study, family support is a factor closely related to the quality of life of DM patients. Families providing emotional and practical support can help patients maintain adherence to medical treatments. Families also play a role in helping patients avoid feelings of loneliness and despair, which often accompany chronic conditions like diabetes. Family support should not be limited to medical treatment alone but should also include emotional support that makes patients feel loved and valued, contributing to a better quality of life.

According to the researchers, family support that can improve the quality of life of DM patients includes support in managing daily routines, such as ensuring that patients maintain a healthy diet, exercise regularly, and follow health monitoring schedules. Families are also expected to be involved in decision-making about the patient's treatment and to understand the patient's condition and its complications.

When families understand and support the patient's emotional and physical needs, patients are more likely to feel supported and motivated in managing themselves. Furthermore, factors such as age, education, and complications can also affect the quality of life of DM patients. Older patients are often associated with decreased physical function and increased risk of complications, which ultimately reduce the quality of life of DM sufferers. Older patients may experience difficulties in adapting to lifestyle changes.

SEFT therapy, as a complementary therapy, requires consistency and a good understanding from patients to be effective. Recent studies have shown that patients receiving strong family support are more able to apply SEFT routinely and correctly, thereby obtaining maximum benefits from this therapy. Family support can also include reminders, assistance during therapy, and spiritual encouragement that aligns with SEFT principles.

SEFT therapy has a significant effect on blood sugar control in patients with diabetes mellitus (DM) at the Pekanbaru City Health Center. Several quantitative studies with pre-experimental one-group pre-test and post-test designs have shown that after receiving SEFT therapy, there was a significant decrease in blood sugar levels with p -value < 0.05 . In an experimental study with a one-group pre-test post-test design involving 30 type 2 DM patients at Sultan Iskandar Muda Hospital, there was a significant decrease in blood sugar levels after SEFT therapy (average from 282 mg/dl to 276 mg/dl, $p=0.000$). This therapy is effective as a non-pharmacological intervention to help control blood glucose levels in type 2 DM patients.

SEFT therapy can reduce blood glucose levels in type 2 DM patients at Surakarta City Hospital. The reduction points in blood glucose levels in type 2 DM patients receiving SEFT were higher than in those not receiving SEFT.

These correlation results emphasize the importance of involving families in diabetes management programs, especially when using complementary therapies like SEFT. Nursing interventions and education involving families can strengthen social support, thereby increasing adherence and therapy outcomes.

CONCLUSION

This study indicates a significant positive correlation between family social support and the application of SEFT therapy in patients with diabetes mellitus at the Pekanbaru City Health Center. Optimal family support can increase patients' motivation and discipline in undergoing therapy, which ultimately contributes to decreased blood glucose levels and better disease management. Therefore, it is essential for healthcare providers to involve families in the education and management process of diabetes to improve therapy success and enhance patients' quality of life.

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