



THE RELATIONSHIP BETWEEN DIABETES BURNOUT SYNDROME AND COMPLICATION PREVENTION BEHAVIOR IN DIABETES MELLITUS PATIENTS

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ABSTRACT	Keywords
One of the diseases that often occurs among the public is diabetes mellitus, a chronic condition that can cause worsening problems throughout the patient's life due to metabolic disorders that occur in the pancreas. Diabetes sufferers often experience stress, anger, despair, frustration, and emotional disturbances called diabetes burnout. This study aims to determine the relationship between diabetes distress and The Relationship between Diabetes Burnout Syndrome and Complication Prevention Behavior in Diabetes Mellitus Patients diabetes sufferers. This type of research uses a quantitative method, with a retrospective approach. The instrument used in this study was a questionnaire that had been tested for validity in previous studies. Respondents were 66 diabetes sufferers at the Bangsal Community Health Center (UPT Bangsal), selected using a total sampling technique. The results of the analysis using the Spearman rho correlation test obtained a p-value of 0.000, indicating a relationship between diabetes distress and self-care in diabetes sufferers at the Bangsal Community Health Center (UPT Bangsal). The correlation coefficient value of -0.649 indicates a strong closeness with a negative direction, meaning that the milder the diabetes burnout, the better the Complication Prevention Behavior in Diabetes Mellitus Patients	Burnout, Prevention Behavior , Diabetes Mellitus

INTRODUCTION

One of the diseases with the highest prevalence in developing countries is diabetes mellitus, the number of which continues to increase annually. Diabetes burnout is a patient's concern about the quality of healthcare. Symptoms of diabetes burnout include loss of hope for recovery, low self-esteem, and a lack of capacity to

maintain the lifestyle necessary to manage diabetes (Chukwuemeka et al., 2020). According to statistics, Indonesia ranks fifth in the world for the number of diabetes sufferers. In 2021, the International Diabetes Federation (IDF) reported that 19.5 million Indonesians aged 20 to 79 had diabetes mellitus (Webber, 2021). In East Java, the estimated number of diabetes sufferers

reached 854,454 out of the population aged 15 years and older. Health services for diabetes sufferers in 38 districts/cities in East Java have reached 59,187 (100.6%) of the estimated number of sufferers. In 2023, the number of diabetes mellitus sufferers in Mojokerto City was 7,715 from 6 Community Health Centers with a prevalence of 100.0% (Asiva Noor Rachmayani, 2019). In the working area of Bangsal Community Health Center UPT, cases of diabetes mellitus sufferers reached 1,244 cases, including 66 people participating in the Prolanis program and Bangsal Community Health Center itself was in the top 6 with the highest number of Diabetes Mellitus cases in Mojokerto Regency (Mojokerto Regency Health Office, 2024). Anxiety, stress, sadness, fear, worry, hopelessness, and helplessness are mental health symptoms that may occur in individuals (Nugroho et al., 2024). Emotional distress related to diabetes can also result from personal concerns about health management, family support, emotional stress, and accessibility of care (Rahmi, Malini, & Huriani, 2020). This can influence complication prevention behavior in Diabetes Mellitus Patients

complication prevention behavior (Putra, Widayati, & Sutawardana, 2017). complication prevention behavior plays a crucial role in improving the well-being and quality of life of people with the disease. Proper self-care practices can control blood sugar levels in people with diabetes mellitus, improving their quality of life (Srywahyuni, Amelia, & Zulita, 2021).

METHOD

This study design uses a cohort approach using retrospective data, which examines how risk and impact aspects interact through observation or data collection at one point in time (point-in-time approach). The population in this study were all diabetes mellitus patients who participated in the prolanis program at the Bangsal Community Health Center UPT, totaling 66 people. The sampling technique used was total sampling. The independent variable was Diabetes Distress and the

dependent variable was self-care. The instruments in this study used the DDS (Diabetes Distress Scale) questionnaire consisting of 17 questions and the SDSCA (Summary of Diabetes Self-Care Activities) questionnaire consisting of 13 questions.

RESULTS

Tabel 1 Respondent Characteristics Based on General Data

N o.	Respondent Characteristics	Frekuensi	Presentase(%)
1.	Age		
	45-54 year	18	27.3
	55-59 year	27	40.9
	>60 year	21	31.8
	Total	66	100
2.	Gender		
	Male	3	4.5
	Female	63	95.5
	Total	66	100
3.	Long Suffering		
	3-12 Months	11	16.7
	<5 years	44	66.7
	≥5 years	11	16.7
	Total	66	100
4.	Concomitant Diseases		
	Hypertension	25	37.9
	Blindness	0	0.0
	Strokes	2	3.0
	Etc	39	59.1
	Total	66	100

Based on Table 1, the distribution of results is as follows: The age of the respondents was mostly between 55-59 years (40.9% or 27 people), on average women were the most dominant to have diabetes with a total of 63 respondents (95.5%) and the duration of suffering from diabetes mellitus was mostly <5 years (66.7% or 44 people) and the majority of sufferers had comorbidities such as hypertension (25 respondents or 37.9%).

Table 2 Relationship between Diabetes Burnout Syndrome and Complication Prevention Behavior in Diabetes Mellitus Patients

<i>Diabetes Burnout</i>	<i>Complication Prevention Behavior</i>					
	Not Good		Good		Total	
	f	%	f	%	f	%
Light	3	4.5	2	39.	2	43.9
			6	4	9	
Medium	2	33.3	1	15.	3	48.5
	2		0	2	2	
Heavy	5	7.6	0	0.0	5	7.6
Total	3	45.5	3	54.	6	100
	0		6	5	6	
Hasil Uji Statistik	Pvalue:	$\alpha < 0.05$	r: -0.649			
	0,000					

Based on table 2 above, the results obtained that respondents who have severe diabetes burnout amounted to 5 respondents (7.6%), while 29 respondents (43.9%) showed mild diabetes burnout results with 3 respondents (4.5%) having poor complication prevention behavior and 26 others (39.4%) having good complication prevention behavior. While 32 respondents (48.5%) showed moderate diabetes burnout results with 22 respondents (33.3%) having poor complication prevention behavior and 10 other respondents (15.2%) having good complication prevention behavior. Based on the Spearman Rho statistical test, a significance value of 0.000 (p value <0.05) was obtained which can be interpreted that H_a is accepted and H_o is rejected, which means there is a relationship between Diabetes Burnout Syndrome and Complication Prevention Behavior with a correlation coefficient value ($r = -0.649$) which can be concluded that the closeness of the correlation results is strong with a negative direction which can be interpreted

that the lighter the diabetes distress, the better the self-care.

DISCUSSION

1. Diabetes Burnout Syndrome in Diabetes Mellitus Patients at the Bangsal Community Health Center

Table 2 shows that the majority of respondents experienced moderate diabetes burnout, with 32 respondents (48.5%), of whom 25 had suffered for less than 5 years. Diabetes burnout is an emotional state often experienced by people with diabetes mellitus, encompassing feelings of anxiety, frustration, hopelessness, and mental exhaustion resulting from disease management. Factors contributing to distress include biological, genetic, and psychosocial factors. Distress can be a trigger for inward aggression. When individuals with distress realize they are not living up to their ideals, it can lead to despair (Malini et al. 2019). Newly diagnosed patients (less than 5 years) may experience high levels of burnout due to concerns about managing diabetes. These individuals may experience anxiety related to the changes they must make in their lives and the impact of diabetes on their quality of life. Patients who have suffered from diabetes for a long time (>5 years) often experience more complex distress, diabetes sufferers may have faced various complications and feel emotionally exhausted from the long-term process of managing the disease (Maulidita 2018).

2. Complication Prevention Behavior in Diabetes Mellitus Patients at Bangsal Community Health Center

Table 2 shows that of the 66 respondents, 36 (54.5%) had good complication prevention behavior. Complication prevention behavior is a series of actions and behaviors undertaken by individuals with diabetes to effectively manage their condition and control stress or burnout. It encompasses various aspects aimed at maintaining health, preventing complications, and improving overall

quality of life. Diabetes complication prevention behavior involves understanding the disease, managing symptoms, and implementing appropriate strategies in daily life (Fadli & Uly, 2023). Complication prevention behavior among diabetes mellitus patients at Bangsal Community Health Center was categorized as good by 36 respondents (54.5%) of the 66. Nearly half of these respondents had poor self-care. This is because self-care can be influenced by gender and duration of the disease. These conditions need to be addressed to improve complication prevention behavior. complication prevention behavior for distress refers to a series of positive actions taken by individuals to manage their physical and mental health. These actions aim to reduce the anxiety, frustration, and hopelessness often experienced by people with diabetes. Patients who practice good complication prevention behavior tend to be more proactive in regularly monitoring their blood sugar levels, so they can understand how food and physical activity affect their condition. By doing so, they can make more informed decisions about diet and medication, which can ultimately help maintain blood sugar levels within a healthy range (Colberg, S. R., et al. 2016).

3. The Relationship between Diabetes Burnout Syndrome and Complication Prevention Behavior in Patients with Diabetes Mellitus

Table 2 shows that 29 respondents (43.9%) experienced mild burnout, 32 respondents (48.5%) experienced moderate burnout, and 5 respondents (7.6%) experienced severe burnout. Thirty (45.5%) respondents experienced poor complication prevention behavior, while 36 (54.5%) experienced good complication prevention behavior. The Spearman's Rho test yielded a p-value of 0.000 with an α of <0.05 , indicating that H1 is accepted, indicating a relationship between diabetes distress and self-care in patients with diabetes mellitus. The

resulting correlation coefficient (r) was -0.649, indicating a strong negative correlation. This suggests that the milder the diabetes burnout, the better the complication prevention behavior. Effective management of diabetes burnout can positively contribute to complication prevention behavior. Patients facing mild burnout generally demonstrate better complication prevention behavior compared to those facing severe burnout, who exhibit poor or inadequate complication prevention behavior. Furthermore, respondents with severe burnout are 1.8 times more likely to neglect proper complication prevention behavior (Natalansyah, Wulandari, and Mansyah 2020). Diabetes burnout syndrome is thought to negatively impact the health and well-being of those affected, affecting their morale, emotions, and motivation to manage care, treatment, and monitoring. Consequently, it can lead to undesirable outcomes such as uncontrolled blood sugar levels, negative emotions, fatigue, and feelings of overwhelm, which can complicate or hinder the patient's treatment journey. Individuals, both healthy and ill, have a variety of self-care needs throughout their life cycle to promote or maintain a state of balance; these include needs for air, water, nutrition, waste disposal, rest, socialization, and coping with life-threatening dangers. For individuals with diabetes mellitus, essential self-care needs to maintain and improve their health include diet management, physical activity, blood sugar monitoring, consistent medication intake, and foot care. (Ismiyanti and Fadillah 2022).

CONCLUSIONS

The conclusion of the study is that there is a relationship between diabetes burnout syndrome and complication prevention behavior in diabetes mellitus patients at the Bangsal Community Health Center UPT, which is proven by the results of the Spearman rho statistical test showing a strong relationship with a negative or non-unidirectional direction. Thus, it can be

concluded that the lighter the diabetes burnout, the better the complication prevention behavior in diabetes mellitus patients.

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