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Original Research

Correlation Self-Compassion and Stress in Patients with Type II Diabetes Mellitus

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ABSTRACT

Type 2 diabetes mellitus (T2D) in the elderly is an increasing health problem. Elderly patients with type 2 diabetes have a higher risk of diabetes complications and require appropriate treatment. This disease causes 4 million deaths annually, accounting for 9 percent of all deaths worldwide. The purpose of the study was to assess the correlation of self-compassion and stress on T2D patients at the Lubuk Buaya Health Center. This study used a cross- sectional study design. 85 elderly people with T2D referring to the Lubuk Buaya Health Center were enrolled through a simple randomized sampling method from November to February 2022. In order to collect data, the Depression Anxiety Stress Scales (DASS) and the self-compassion scale (SCS) were used. In addition, to analyze the data, pearson product moment test methods were done using SPSS V.22 software. The results show that there is a significant correlation between self-compassion and stress in patients T2D. Self-compassion is one of the most effective methods for reducing stress in diabetic patients. Consequently, therapists, counselors, and psychologists are encouraged to employ self-compassion training to reduce stress in T2D patients.

Keywords: Diabetes Melitus, Type II, Stress, Self-Compassion

INTRODUCTION

Diabetes mellitus is a metabolic disorder that occurs when the pancreas cannot produce enough insulin or when the body cannot use the insulin produced effectively, resulting in hyperglycemia or increased blood glucose levels (Kementerian Kesehatan RI, 2020)(WHO, 2016). In 2017, about 425 million people in the world lived with diabetes mellitus. This is expected to increase by 2045. The International Diabetes Federation states that in 2015, cases of type 2 diabetes mellitus (T2D) in the world occurred in 413 million people and are expected to double by 2040 (Tinajero & Malik, 2021). T2D is a prevalent non-communicable illness worldwide and is recognized as one of the top ten leading causes of mortality in numerous countries (WHO, 2020). Approximately forty percent of patients with T2D experience mental health issues that impact the treatment of their condition (Kılıç, Hudson, Scott, McCracken, & Hughes, 2022). Untreated mental health problems in chronic illnesses result in less effective self-care, including poor medication adherence, and can lead to further difficulties and a decrease in quality of life (QoL). Consequently, it is crucial to comprehend the contributors to mental health issues in T2D (Hendrieckx, Halliday, Beeney, & Speight, 2020). T2D and its consequences are mostly caused by the rising incidence of obesity and sedentary lifestyles (Karami, Rezaei, Karimi, & Rafiee, 2018).

Indonesia has one of the world's highest absolute prevalences of diabetes, with 10.7 million diabetics, which estimates will increase by 14.1% in 2045 (IDF, 2019). The prevalence increased from 6% in 2013 to 8.5% in 2018. Research has found that just 9% of diabetics who are older than 15 receive medical attention (Ministry of Health, 2018).

Diabetes has always been treated solely from a medical standpoint, despite an increase in mental health difficulties among diabetic patients (Ventura et al., 2019). There has been a recent shift in emphasis toward the significance of mental health in the efficient management of chronic illnesses such as diabetes (Sandham & Deacon, 2023). For the reasons described above, a more holistic approach to diabetes management and treatment is required, incorporating a dimension of mental health and well-being such as self-compassion.

Mastering the practice of self-compassion has a wide range of physiological and psychological benefits. In a nutshell, self-compassion is the ability to be kind and understanding to oneself, especially in difficult situations (Gilbert, 2009). Self-compassion is related to several positive psychology principles, including mindfulness, self-care, self-efficacy, and family empowerment (Rahmani, Mansoobifar, Sirifi, Ashayeri, & Bermas, 2020).

Self-compassion is being kind and caring to oneself in the face of perceived hardships or flaws. It is defined as accepting feelings of vulnerability, being kind and caring to oneself, not being hard on oneself for mistakes, and recognizing that everyone has similar experiences. People with self-compassion are more brave when dealing with bad things, and when asked to think about their failures, they do so less harshly and emotionally (Van Dam, Sheppard, Forsyth, & Earleywine, 2011). Self-compassion training improves people's health because it makes them feel cared for and connected, which makes them feel calm. Self-compassion is also a strong predictor of how bad symptoms are and how good life is, and it plays a key role in predicting mental health, especially anxiety and depression (Neff, Kirkpatrick, & Rude, 2007). Because diabetes is a long-term condition that affects the patient physically, functionally, and socially, it is important to study the factors that affect how it is managed and how its complications can be reduced. Considering the studies that have already been done and the lack of research in this area, this study was done to see how group self-compassion training affects blood glucose control in diabetes patients. Self-compassion training improves people's health because it makes them feel cared for and connected, which makes them feel calm. Self-compassion is also a strong predictor of how bad symptoms are and how good life

is, and it plays a key role in predicting mental health, especially anxiety and depression (Neff et al., 2007). Because diabetes is a long-term condition that affects the patient physically, functionally, and socially, it is important to study the factors that affect how it is managed and how its complications can be reduced. Considering the studies that have already been done and the lack of research in this area, this study was done to see how group self-compassion training affects stress in T2D patients.

METHODS

The type of research used is descriptive analytic with a cross-sectional study approach, where data collection for both the independent variable (self-compassion) and the dependent variable (stress) is carried out at the same time. This research was conducted at the Lubuk Buaya Health Center from November to February 2022. The population in this study was all Type II Diabetes Mellitus patients in the elderly category at the Lubuk Buaya Health Center in October–November 2020. Sample of the study was 85 respondents. The inclusion criteria were elderly who diagnosed with type 2 DM, can communicate well and willing to be research respondents. The exclusion criteria were patients with type 2 diabetes having physical disorders, physical limitations, and mental disorders. Analysis of research data using Pearson Product Moment correlation analysis to test the relationship between self-compassion and stress.

The instruments used in this study is the Depression Anxiety Stress Scale (DASS). It developed by (Lovibond & Lovibond, 1995) consists of 42 items. The DASS is a 42-item questionnaire which includes three self-report scales: Depression (14-items), anxiety (14-items), and stress (14-items). Each item was rated on a 5-point scale. For Self-compassion use self-compassion scale (SCS) by (Neff, 2003) which has been adapted into bahasa and carried out further trials by researchers to respondents. SCS measures an individual's self-compassion, i.e. attitude treat yourself kindly, understandingly, supportively, and compassionately. Every The SCS item is a statement, and participants are asked to choose one number from one (1) to five (5) indicating how often the statement applies to participants, where the number one (1) represents "almost never" and the number five (5) symbolizes "almost always". The higher the self-compassion variable score, the more high levels of self-compassion possessed by participants The SCS consists of 26 statement items that measure all six components of self-compassion (Three positive dimensions and three negative dimensions). The positive dimension consists of self-kindness, recognition of common humanity, and mindfulness. The negative dimension consists of self-judgment, isolation, and over-identification. Cronbach’s alpha value at 0.907 and item validity value using confirmatory factor analysis CFI 0.92; RFI 0.84; IFI 0.92; NFI 0.82, with the overall t-value of the item >1.96. So it can be said that significant self-compassion measurement tools have good validity.

RESULTS

The socio-demographic characteristics of research respondents can be seen in Table 1 below.

Tabel 1. Data socio-demographic respondent's study (N=85)

Variable	Percentage (%)
Gender	
Man	44.0
Women	56.0
Educational level	
Uneducated	2.4
Primary school	47.6
Secondary school	4.8
Senior high school	33.3
Graduate	11.9
Married status	
Married	23.8
Divorced	47.6
Widowed	28.6

Based on Table 1 shows the results of the study that there were 47 women respondents (56.0%). The last education of the most respondents was graduated from primary school with 40 respondents (47.6%) and based on married status, the most respondents were divorced (47.6%).

Table 2. Distribution of respondents by age and length of DM diagnosis

Variable	Mean	Median	Min-Max
Age (Years)	62.50	60.00	60-85
Length of DM Diagnosis (Years)	9.89	10.00	1-20

The results of the kolmogrov smirnov test the characteristics of respondents were obtained if the age and length of time diagnosed with DM respondents had abnormally distributed data with p = 0.002 for age and p = 0.001 for long diagnosed DM. The results of the study based on Table 2 showed that the average age of respondents was 62.50 years with a middle value of 60.00 years. The minimum age of respondents is 60 years and a maximum of 85 years. The average length of DM diagnosis is 9.89 years with a median value of 10.00 years with a minimum length of diagnosed type 2 DM, which is 1 year and a maximum of 20 years.

Frequency distribution of respondents based on self-compassions in patients TD2 at the Lubuk Buaya Health Center.

Table 3. Frequency distribution of respondents based on self-compassions in patients T2D at the Lubuk Buaya Health Center

Self-Compassion	Percentage (%)
High	68.75
Low	31.25
Total	100.0

According to Table 3, more than half (68.75%) of respondents in the Lubuk Buaya Public Health Center exhibited high levels of Self Compassion.

Frequency distribution of respondents based on stress in patients T2D at the Lubuk Buaya Health Center.

Table 4. Frequency distribution of respondents based on stress in patients TD2 at the Lubuk Buaya Health Center

Stress	Percentage (%)
Light	75.0
Heavy	25.0
Total	100.0

Based on Table 4, it can be seen that of the 85 respondents, most (75%) respondents had a mild level of stress at the Lubuk Buaya Health Center Padang.

The Relationship between Self Compassions and Stress in Patients T2D at Lubuk Buaya Health Center.

Table 5. The relationship of self-compassions and stress in patients T2D at the Lubuk Buaya Health Center

Variable		Self-compassion	Stress
Self-compassion	Person correlation	1	-0.813
	Sig. (2-tailed)		0.001
	N	85	85
Stress	Person correlation	-0.813	1
	Sig. (2-tailed)	0.001	
	N	85	85

Based on Table 5, it is known that the calculated r value of -0.813 is in the area of negative relationship and sig value. (2-tailed) 0.001 < 0.005. So, it can be concluded that if self-compassion in T2D patients increases, stress decreases.

DISCUSSIONS

a. Frequency distribution of self-compassions of respondents T2D at Puskesmas Lubuk Buaya Health Center

Based on the results showed that of the 85 respondents, more than half (68.75%) of the respondents had high Self Compassions and 31.25% had low Self Compassions in the Lubuk Buaya Health Center Working Area. The results of this study are in line with Mustajab's research (2018) which found that more than half (66.7%) had high Self Compassions and only (33%) patients had low Self Compassions. The results of this study are also in line with the results of Masruroh's research (2021) which had high self compassion, namely 57.4% of respondents, moderate self compassion as many as 16 people (34%), and only 8.5% of respondents had low self compassion. Neff (2018) states that Self Compassion is a sense of compassion for oneself towards the suffering experienced by a person. Self Compassion can be realized by compassion for oneself when there is misfortune, so that one can respond better to the pain they experience (Neff, 2018). Type II Diabetes Mellitus sufferers have Self Compassion which is indicated as someone who perceives their health positively, is able to carry out daily activities better, feels his life is fun and full of enthusiasm because he has

compassion for himself (Kawitri, Listiyandini, & Rahmatika, 2020). The high Self Compassion of respondents in this study is because respondents stated that they always try to love themselves when they feel hurt, always reminding themselves that many people in this world also feel the way the respondents feel. When respondents feel inadequate in some way, respondents try to remind themselves that these feelings are shared by many people, so that respondents can see the failures experienced as common to every human being. Conversely, respondents who have low Self Compassion are because when respondents feel something is disappointing, respondents are easily carried away by their own feelings, when respondents think about their shortcomings, respondents often feel detached and isolated.

b. Frequency distribution of stress of respondents with T2D at Lubuk Buaya Health Center

Based on table 2, it can be seen that of the 85 respondents, most (75%) respondents had a mild level of stress in the Lubuk Buaya Health Center Working Area and 25% had high stress in the Lubuk Buaya Health Center Working Area. Stress is the body's non-specific response to any disturbed needs, a universal phenomenon that occurs in everyday life and cannot be avoided, everyone experiences it, stress has a total impact on the physical, psychological, intellectual, social and spiritual, stress can threaten physiological balance (Tomahayu, 2019). Stress is perceived as a situation where a person experiences anxiety, fear, worry, or anxiety so that a person experiences a negative, painful psychological state, and the desire to avoid it arises (Fudianti, 2019). The lightness or severity of stress experienced by a person depends on how a person deals with the problems faced, the better a person deals with problems, the lighter the stress experienced. When a person views a problem as a disaster, then all that is felt is sadness and it causes negative thoughts that cause stress. Conversely, if someone views the problem positively then they will be able to take lessons from the problems experienced. Stress experienced by a person can affect a person's emotions and behavior such as irritability, overreacting to a situation, impatience, spending a lot of energy when anxious and not being able to accept something that can block it. These symptoms occur due to individual release to reduce the uncomfortable feelings experienced. Individual responses to stress are cognitive, affective, physiological, behavioral and social responses. Affective responses are shown by irritability, excessive anxiety, anxiety, and despair. While the behavioral response is shown by the lack of ability to control oneself (Fudianti, 2019).

DM patients are at risk of experiencing stress as much as 2 times (Kaelberer & Tanenbaum, 2023). Studies show that stress can affect blood sugar levels in diabetes mellitus patients, including in elderly diabetes mellitus patients.Stress in diabetic patients is a serious problem because it makes the disease worse. Stress has a major impact on diabetes because it affects the control and level of blood sugar levels. When a person is faced with a stressful situation, the response that arises can be an increase in the hormone adrenaline in the body which in turn can convert glycogen stores in the liver into glucose. Persistently high blood sugar levels (hyperglycemia) result in various complications of diabetes (Derek, Rottie, & Kallo, 2017)

c. The relationship between self-compassions and stress in respondent T2D at Lubuk Buaya Health Center

Based on table 4, it can be seen that the proportion of respondents with high Self Compassions has a mild stress level of 69.5% higher than respondents with high Self Compassions with a severe stress level of 30.43%. The results of the chi-square test obtained a value of $p = 0.000$ ($p < 0.05$) means that there is a significant relationship between Self

Compassions and stress in patients with Type II Diabetes Mellitus at Lubuk Buaya Health Center.

Studies show that self-compassion can play an important role in the management of type 2 diabetes in the elderly. Self-compassion is linked to better behavioral, clinical, and emotional outcomes in individuals with diabetes (Sandham & Deacon, 2023). In another study, (Ventura et al., 2019) found that self-compassion is associated with better clinical outcomes in adults with diabetes, including the elderly. This study suggests that self-compassion may help improve regimen adherence and decrease HbA1c in individuals with diabetes. In research conducted by (Kaelberer & Tanenbaum, 2023), self-compassion was shown to help reduce stress and improve psychological well-being in individuals with diabetes. This study suggests that self-compassion may help improve psychological well-being in individuals with diabetes. In conclusion, the study suggests that self-compassion may play an important role in the management of type 2 diabetes in the elderly. Self-compassion is associated with better behavioral, clinical, and emotional outcomes in individuals with diabetes. Self-compassion can also help reduce stress and improve psychological well-being in individuals with diabetes

CONCLUSIONS

Based on the results of the study, it can be concluded that there is a significant relationship between self-compassions and stress in patients with T2D. For further research, it can be done by examining more comprehensive factors, including family history and environmental factors.

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