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Originality Statement

The Relationship Of Self-Esteem With Diabetes Distress In Type 2 Diabetes Mellitus Patients

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ARTICLE INFO

ABSTRACT

Living with diabetes can lead to various psychosocial problems that affect health and the ability to manage diabetes. Diabetes is a disease that must be managed every day by patients, causing increased stress. This study aimed to analyze the relationship between self-esteem and diabetes distress in patients with type 2 diabetes mellitus. This study used an analytical observational design with a cross-sectional method. The sample in this study was 84 type 2 DM patients. Sampling was carried out in this study using a non-probability sampling technique using consecutive sampling. Self-esteem is measured using the Rosenberg Self-Esteem Scale (RSES), while diabetes distress is measured using the Diabetes Distress Scale (DDS). Data analysis in this study used the Spearman rank (rs) statistical test. Respondents in this study had low self-esteem, as many as 51 people (60.7%). The diabetes distress respondents were in the moderate distress category, as many as 43 people (51%). Based on the results of the study, it was found that there was a significant relationship between self-esteem and diabetes distress in type 2 DM patients with a correlation value of -0.548, which means that the direction of the correlation is negative with moderate strength. This shows that the higher the self-esteem of type 2 DM patients, the lower the diabetes distress experienced. Nurses are expected to think about psychological aspects by providing counseling interventions to patients to increase self-esteem to reduce diabetes distress experienced by patients.

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1. INTRODUCTION

Diabetes mellitus (DM) is a problem in the body that causes blood glucose levels to increase more than usual, called hyperglycemia (American Diabetes Association [ADA], 2015). DM is a chronic disease because the pancreas does not produce insulin, so the body cannot use insulin effectively (Kurdi et al., 2021).

Diabetes Mellitus is a chronic disease that can harm the body, both physically and psychologically. DM causes various complications; one of the most common complications is peripheral neuropathy which can cause permanent disabilities such as amputation (Nistiandani et al., 2021). During the aging process, more and more older adults are at risk of developing diabetes mellitus (Savitri & Ratnawati, 2022). Type 2 DM sufferers experience many changes in their life habits, such as controlling blood sugar, physical activity, taking medication, and eating patterns that must be done regularly. Life changes make DM patients show adverse psychological reactions such as stress, anxiety, anger, and feeling useless. Psychological reactions that often occur in DM patients are stress (Kurniyawan et al., 2022).

The high prevalence of psychological comorbidities in people with diabetes worldwide is that almost a quarter of people suffers from depression or diabetes distress symptoms. Diabetes distress is a patient's concern about diabetes management, perceived support, emotional burden, and access to quality health care. Individuals who experience diabetes distress are characterized by feelings that indicate a loss of hope for recovery, a lack of confidence, and a lack of ability to meet the lifestyle changes needed to manage their diabetes (Chukwuemeka et al., 2017). High diabetes distress can affect diabetes management and medication adherence, impacting poor glycemic control and thus affecting disease management (Chew et al., 2015).

A person's level of distress can be influenced by various demographic characteristics such as personality type, locus of control, and self-esteem (Cho et al., 2007). Psychological distress response is an individual response closely related to feelings of depression (Septiani et al., 2020). Type 2 DM patients often experience changes in life, self-esteem, and increased uncertainty about existence and perceptions of quality of life (Chew et al., 2015). Psychological problems such as changes in self-esteem occur in type 2 DM patients due to perceptions of body image related to their current health conditions. Self-esteem is an indicator and measuring tool for mental health, well-being, and quality of life (Ribeiro et al., 2017).

Self-esteem is a person's assessment of himself, including belief in his abilities and feeling worthy (Okwaraji et al., 2017). Self-esteem is a condition in which individuals can assess themselves in daily life processes (Allaili et al., 2021). Self-esteem is positively related to health education and motivation of DM patients (Deviantony et al., 2021). High self-esteem

can make individuals able to build good and healthy relationships and behave politely with others and create success in themselves. Low self-esteem makes individuals have a negative self-image and self-concept, so there is an inability to form good relation between individuals, and they often punish themselves and dissolve in regret (Suhron, 2016). Low self-esteem increases health-risk behaviors such as smoking, which will worsen health (Melati et al., 2022).

Self-esteem has a prominent effect on a person's mental health. High self-esteem shows that individuals positively perceive themselves (Saha et al., 2013). Type 2 DM patients with high self-esteem effectively reduce diabetes distress related to their diabetic life. If they have a high confidence level in their abilities, the patient is relatively resistant to diabetes distressionship associated with type 2 DM (Ikeda et al., 2014). High self-esteem will make type 2 DM patients live easily (Alobaylan et al., 2016).

Individuals with low self-esteem focus on the negative aspects of their lives and spend time thinking negatively (Okwaraji et al., 2017). Individuals with low self-esteem consider themselves unimportant and do not believe in themselves, causing stress (Yang et al., 2014). Low self-esteem can negatively impact and increase stress and greater disease severity in daily life (Juth et al., 2008). Individuals with type 2 diabetes often have difficulty controlling their disease, which causes stress. Low self-esteem is a risk factor for the lack of control of type 2 DM (Ribeiro et al., 2017).

2. METHODS

This study used an analytic observational design with a cross-sectional method. The population in this study were all type 2 DM patients recorded in the Puger Public Health Center, Jember Regency. Determining the number of samples in this study using the G*Power 3 application obtained a sample of 84 people. Sampling was carried out in this study using a non-probability sampling technique through consecutive sampling.

The sample in this study had inclusion criteria: patient age 25 – 69 years; Length of suffering from DM 6 months; Able to communicate well; Domiciled in the working area of Puger Health Center, Jember Regency; Willing to be a respondent in the research. In comparison, the exclusion criteria are respondents who have severe physical impairment or conditions that do not allow them to participate in the study; respondents who have physical limitations such as blind and deaf; respondents who experience severe

mental disorders such as Alzheimer's and dementia (can be identified by calculating the Mini-Mental State Examination (MMSE) score.

Self-esteem is measured using the Rosenberg Self-Esteem Scale (RSES), and Diabetes distress is measured by the Diabetes Distress Scale (DDS). The RSES questionnaire has a validity and reliability test value ranging from 0.77-0.88, and a test-retest was carried out with a stability coefficient ranging from 0.82 to 0.85 (Rosenberg, 1965). The RSES questionnaire has been translated into Indonesian by Wisudawati (2015) through the General Sudirman University Language Unit. The following instrument has been consulted by experts from Health Psychology at the University of Purworkerto. It has been recommended to be a valid and reliable measuring tool for measuring the self-esteem of type 2 DM patients, with an alpha value of 0.72-0.87.

The DDS questionnaire has a validity test for each statement in the DDS instrument is r = 0.99, and the correlation between the questions and the subscale is r = 0.82. Cronbach's alpha value on DDS was > 0.87 (Polonsky et al., 2005). The DDS questionnaire has been translated into Indonesian by Hanif (2012). It has been tested for validity on 20 samples of type 2 DM patients in the work area of the Sumbersari Health Center. The r value of the validity test table is r = 0.444, and the validity test results get an r-value between 0.534-0.607. The results of the reliability test obtained Cronbach's alpha value > 0.87.

The normality test in this study shows that the self-esteem variable is not normally distributed with a p-value of 0.010 and the diabetes distress variable also indicates that the data is not normally distributed with a p-value of 0.005. The use of Log10 on both variables shows that the self-esteem data is not normally distributed with a p-value of 0.001, and the diabetes distress data shows that the data is not normally distributed with a p-value of 0.019. Data analysis in this study used the Spearman rank (rs) statistical test because the two variables were not normally distributed.

3. RESULTS

Table 1. Distribution of Respondents by Sociodemographic Characteristics in Type 2 DM Patients

Characteristics	Mean	SD
Age (years)	53	± 7,742
DM duration (years)	3	± 0,8-11,0

Table 2. Distribution of Respondents According to Sociodemographic Characteristics in Type 2 DM Patients

Characteristics	Median	*Min-Max*
Income	Rp 225.000	Rp 0- Rp 1.600.000

Table 3. Distribution of Respondents According to Sociodemographic Characteristics in Type 2 DM Patients

Characteristics	Frequency	Percentage
Gender		
Man	20	24
Woman	64	76
Level of education		
Elementary School/Not Finished	49	58
JUNIOR HIGH SCHOOL	21	25
high school	13	16
College	1	1
Work		
Does not work	21	25
civil servant	1	1
Farmers/Growers	26	31
Self-employed	11	13
Private employees	4	5
Housewife	15	18
Others: Fisherman	6	7
Complications		
No Complications	74	88
There are Complications	10	12
Visit health services		
≥1x in 1 month	44	52,4
1x in 2 months	18	21,4
1x in 3 months	22	26,2
Total	84	100.00

Table 4. Self-Esteem Variables in Type 2 DM Patients

Variable	Median	Min-Max
Self Esteem	25	18-33

Table 5. Distribution of Respondents Based on Self-Esteem Variables in Type 2 DM Patients

Variable	Frequency	Percentage
Low self-esteem	51	61
High self-esteem	33	39

Table 6. Diabetes Distress Variables in DM Patients Type 2

Variable	Median	Min-Max
Diabetes Distress	2,0882	1,06-3,47

Table 7. Distribution of Respondents Based on Diabetes Distress Variables in DM Patients Type 2

Variable	Median	Min-Max
Diabetes Distress	2,0882	1,06-3,47

Table 8. Relationship of Self-Esteem with Diabetes Distress in Type 2 DM Patients

Variable	R	P value
Self-Esteem Diabetes Distress	-0,548	0,000

4. DISCUSSION

Self-Esteem in Type 2 DM Patients

In this study, the median self-esteem value of type 2 DM patients was 25, with the lowest range being 18 and the highest self-esteem being 33. Respondents in this study had low self-esteem, as many as 51 people (60.7%). The study's results on DM patients at Ebonyi University Hospital Nigeria obtained low self-esteem, namely as many as 113 people, 20.5% (Okwaraji et al., 2017). Research conducted on 30 respondents with type 2 diabetes found that 20 people (66.7%) experienced low self-esteem (Sofiana et al., 2012).

Self-esteem is a person's assessment of himself, including belief in his abilities and feeling worthy (Okwaraji et al., 2017). Changes in the body of DM patients impact their self-esteem and fear of humiliation compared to their peers who do not have DM (Falco et al., 2015). Individuals who experience DM are at risk of experiencing low self-esteem (Okwaraji et al., 2017). People with type 2 DM have self-esteem problems and difficulties adapting to social and family life due to chronic illness.

Individuals with diabetes face changes in physical appearance, limitations, obstacles in routine activities, difficulties with treatment and its side effects, and adjustment to a new life. This impacts changes in self-esteem due to perceptions of body image related to a new life with diabetes (Ribeiro et al., 2017).

In this study, the average age of type 2 DM respondents was 53 years. At that age, the respondents faced various physical changes and health problems to reduce their self-esteem along with age and health problems experienced. In this study, it was found that respondents with low levels of education may have low self-esteem due to their lack of ability to obtain and understand information related to how to manage DM properly, causing non-compliance in DM management. Therefore, it is necessary to routinely assess the respondent's knowledge of DM and the correct DM management mechanism. It was found that there are more women than men, so the possibility of women's self-esteem is lower because they tend to feel like failures, don't like themselves, have no income, experience problems related to a

diabetic diet, and feel hopeless about the disease.

In this study, it is known that there are respondents who have no income and have low incomes and work as farmers. They may experience low self-esteem due to the respondent's financial inability to meet the needs of life and visit health services which becomes an obstacle to diabetes control.

Diabetes Distress in Type 2 DM Patients

In this study, the median value of diabetes distress was 2.0882, with the lowest value being 1.06 and the highest being 3.47. The highest percentage of diabetic distress is in the moderate distress category, with 43 people (51%). This study's results align with Inayah (2017) research, where 42 respondents experienced moderate distress, namely 50.0%. Another study showed that respondents with type 2 DM experienced the most moderate distress, as many as 66 people (60.6%) (Pranata, 2017).

Diabetes distress is a condition of negative emotional burden about the worries of living with diabetes. Diabetes distress is characterized by worry, frustration, and fatigue. The emotional burden is related to proper self-care and effective communication with various health services (Gebel, 2013).

In this study, the results showed that respondents with no income and low incomes were likely to experience distress due to the high cost of DM treatment and the obligation to meet family needs. This study showed that the respondents in this study were mainly married. The involvement of partners can help respondents with type 2 DM reduce emotional problems by sharing the problems experienced and assisting respondents in DM diet management to improve dietary compliance and reasonable glycemic control. However, in reality, married type 2 DM patients experience distress, possibly due to conflict or negative interactions in married life, which can cause problems and high-stress levels and affect DM control. It is necessary to increase the understanding of DM patients, their families, and partners regarding DM disease. The participation of family and partners can help in controlling DM.

The results showed that respondents experienced DM for a long time, so they were likely to experience distress due to concerns about diseases that did not heal quickly, difficulties in managing food and did not know and adapt to their illness, and lack of support from

family and others. The study results indicate that respondents' level of awareness still needs to be higher to visit health services regularly. This can be due to the difficulty accessing health services, financial factors, the unavailability of supporting medical examination tools, and the need for more interaction between patients and health workers, which may cause distress. Healthcare providers must have good interactions with patients to help overcome any problems faced by patients.

Relationship of Self-Esteem with Diabetes Distress in Type 2 DM Patients

Based on the results of research, it was found that there was a significant relationship between self-esteem and diabetes distress in type 2 DM patients in the Puger Public Health Center, Jember Regency, with a correlation value of -0.548. It means that the direction of the correlation is negative with moderate strength. This shows that the higher the self-esteem of type 2 DM patients, the lower the diabetes distress experienced. Many individuals often experience difficulty controlling type 2 DM, triggering fear, stress, and the inability to adjust to the disease. Due to chronic illness, individuals with DM bring problems related to self-

image, self-esteem, and difficulty adapting to family and daily social life (Ribeiro et al., 2017).

Crocker and Park (2004) assumed that self-esteem is a strong construct involved in psychological processes and emotional disturbances (Demeyer et al., 2017). High self-esteem is fundamental to personal well-being, happiness, and adjustment. Individuals with high self-esteem are more satisfied with their lives, have fewer interpersonal problems, obtain exemplary achievements, are more consistent, and are prone to psychological problems and physical illnesses than individuals with low self-esteem. In addition, self-esteem refers to the negative and positive things individuals feel about themselves (Galanakis et al., 2016). Individuals with high self-esteem positively perceive themselves (Saha et al., 2013). High self-esteem makes type 2 DM patients live easily (Alobaylan et al., 2016). Increased self-esteem and a healthy lifestyle are associated with lower diabetes distress (Chukwuemeka et al., 2017). Self-esteem plays an essential role in physical and psychological health, which is associated with life satisfaction and quality of life (Galanakis et al., 2016).

Low self-esteem has a negative impact, such as increased stress and illness

severity in daily life (Juth et al., 2008). Individuals with low self-esteem tend to focus on the negative aspects of their lives and spend time thinking negatively. In patients with type 2 diabetes, lack of life satisfaction, low self-esteem, and poor mental health are associated with negative feelings about the disease they are experiencing. It causes distress because they must adhere to strict treatment to prevent complications associated with diabetes (Okwaraji et al., 2014).

In this study, the diabetes distress experienced by patients with type 2 DM was probably due to their emotional burden regarding their illness, thus affecting their psychological condition and impacting the DM treatment they underwent. Type 2 DM patients also need to visit health services to assist in overcoming psychological problems and optimizing treatment for type 2 DM patients. As for other possible factors that can cause type 2 DM patients to experience diabetes distress, namely age, gender, education level, occupation, income, marital status, duration of DM, complications, and visits to health services.

The existence of routines and additional stressors such as meeting family needs at that age, the tendency of the female sex to find it challenging to manage

DM such as poor glycemic control, lack of support, and excessive stress on DM, in addition to the low level of patient understanding about how to cope with emotional stress. Life with diabetes, working as a farmer, and low-income levels face the high cost of DM treatment. The demands to meet family needs and conflicts between partners can cause problems and high-stress levels that can affect DM control. Long experience with DM triggers concerns about illnesses that do not go away, and complications experienced may trigger diabetes distress. Less routine visiting health services due to financial factors, demanding access to health services, lack of health support facilities tan, and the lack of interaction between patients and health workers will trigger diabetes distress in type 2 DM patients.

5. CONCLUSIONS

There is a significant relationship between self-esteem and diabetes distress in type 2 DM patients in the Puger Public Health Center, Jember Regency. The higher a person's self-esteem, the lower the diabetes distress in type 2 DM patients. Nurses are expected to think about psychological aspects by providing counseling interventions to patients. Patients can exchange ideas with health

workers about the problems experienced by patients so that they can increase their self-esteem to reduce the diabetes distress experienced by patients.

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