



The relationship between self-esteem and diabetes distress in type 2 diabetes mellitus patients at pahandut community health center Palangka Raya City

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ARTICLE INFO

Article history:

Received Nov 15, 2023

Revised Nov 18, 2023

Accepted Nov 26, 2023

Keywords:

Diabetes Distress;
Self-esteem;
Type 2 Diabetes Mellitus.

ABSTRACT

Diabetes Mellitus is a non-communicable metabolic disease characterized by an increase in blood sugar levels >200 mg/dl due to impaired secretion of insulin. Manifestations of Diabetes Mellitus are polyphagia, polydipsi, polyuria and drastic weight loss. This research aims to determine the relationship between Self-Esteem and Diabetes Distress in Type 2 Diabetes Mellitus Patients at the Pahandut Community Health Center, Palangka Raya City. The research design is quantitative with a cross-sectional approach, the number of samples used was 41 respondents using a purposive sampling technique. The data collected in this study is demographic data including age, gender, highest level of education, occupation, income, length of time suffering from DM, visits to health services, Self-Esteem, Diabetes Distress and questionnaires. The results of the study showed that there was a relationship between self-esteem and Diabetes Distress in Type 2 Diabetes Mellitus Patients at the Pahandut Health Center, Palangka Raya City ($p=0.036$).

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1. Introduction

Diabetes mellitus is a disease of impaired insulin secretion characterized by increased blood sugar levels (Silalahi, 2019). Diabetes mellitus can trigger a decrease in secretion of insulin by pancreatic β cells and is called insulin resistance (Rusdi, 2020).

Based on data from the International Diabetes Federation, Diabetes Atlas 2021, said that since the beginning of 2000, the prevalence of diabetes in adults has increased more than 3 times with an average age of 20 to 79 years. With the number of Diabetes Mellitus patients totaling 537 million adults. If left untreated and becomes an unchangeable lifestyle, the number of diabetics will increase by 2045 to a total of 783 million (12.2% of the total population). Indonesia occupies the fifth position with the largest number of Diabetes Mellitus patients, totaling 19.47 million people (Webber, 2021).

Through data compiled in Riskesdas, 2013, it was explained that the proportion of diabetes mellitus in productive age diagnosed by doctors was around 19,299 people or 1.2% who had characteristics such as polydipsi, polygyny, and polyuria. In 2018 there was an increase in the proportion of diabetes patients with a total of 14 districts / cities in Central Kalimantan, namely 22,092 people recorded by Riskesdas in 2018. Based on the presentation of data from the Palangka Raya City Health Office, since 2020 there has been a very significant increase with 7,615 cases of diabetes, which

previously in 2019 reached 2,732. Apart from causing an impact on the body, Diabetes Mellitus can also cause psychosocial problems (Putra et al., 2020).

Changes in life that are felt in Diabetes Mellitus patients can unwittingly trigger a negative psychological response (Tjok & Made, 2020). This was expressed by people with Diabetes Mellitus that they often have difficulty accepting themselves. Especially when knowing that he is designed to consume drugs to a planned diet called DM management (Putra et al., 2020).

The universal prevalence of cognitive comorbidities among diabetes patients is high, with almost a quarter of them suffering from symptoms of depression or Stress in Diabetes Patients, which can affect diabetes management and medication adherence, which can result in poor blood sugar monitoring that affects disease management (Chukwuemeka et al., 2017). Diabetes Distress refers to the specific psychological distress experienced by someone with Diabetes Mellitus and can include a wide range of emotional states (Alfalsah & Sutawardana, 2021).

Diabetes Distress is a condition where patients are concerned about, self-management, encouragement from family, emotional tension, channels for care (Rahmi et al., 2020). A person's level of distress can be influenced by various personalities, such as personality type, locus of control, and self-esteem. (Cho et al, 2015 in (Ahmad, 2018)).

Self-esteem felt by people with Diabetes Mellitus refers to a negative sense that leads to self, so that it can reduce self-confidence, feel lower than other individuals. People who have low self-esteem believe and see themselves as weak, unable to do things that others can do, helpless, disappointing others, inferior to others, not interested in living life and incompetent in performing their duties as individuals. This can lead to sleep disturbances, introvert, and lack of motivation (Putra et al., 2020). Self-esteem is an important aspect to be able to overcome distress related to self-adaptation regarding the disease suffered, medical treatment to self-maintenance for Diabetes Mellitus patients (Ahmad, 2018).

Self-management in diabetic patients requires qualities with high self-esteem in order to make lifestyle transformations and improve quality of life. Conversely, individuals with high self-esteem have a positive outlook and high quality of self-belief in their ability to regain consciousness by avoiding the stress they experience (Kumalasari & Asriyadi, 2020).

(Ahmad, 2018) said there was a significant relationship between self-esteem and diabetes distress in type 2 DM patients. Patients with good self-esteem conditions will be able to accept themselves and can manage their disease well so as to reduce the Diabetes Distress they experience. Patients with this condition are expected to be able to adapt to their disease in order to succeed in managing the chronic disease.

This research will be useful in improving the management of nursing care for type 2 DM patients who have problems regarding Self-Esteem with Diabetes Distress thereby improving health services for type 2 DM patients.

2. Research Methods

The design of this research is a cross-sectional approach with a quantitative research type. This study aims to determine the relationship between Self-Esteem and Diabetes Distress in Patients with Type 2 Diabetes Mellitus. The sampling method used in this study was non-probability sampling with a random sampling technique. Data collection tools consisted of a demographic data questionnaire, the Rosenberg Self Esteem Scale (RSES) self-esteem questionnaire and the Diabetes Distress Scale (DDS) questionnaire.

3. Results and Discussion

The results of this research were carried out using univariate analysis to describe the frequency distribution of the demographic characteristics of respondents which include age, gender, education, employment, income, duration of suffering from diabetes, and visits to health services, while bivariate analysis was used to explain the relationship between self-esteem and diabetes distress. type 2 DM patients as in table 1 and table 2 as follows:

3.1 Results

Tabel 1
Frequency distribution of demographic characteristics of type 2 DM respondents at pahandut health center, palangka raya city (n = 41).

Variable	Frequency (f)	Percentage (%)
Age		
Early adult age 26-35 years	1	2,4%
Late adult age 36-45 years old	8	19,5%
Early elderly age 46-55 years old	11	25,8%
Late elderly 56-65 years old	15	36,6%
Elderly age >65 years old	6	14,6%
Gender		
Male	19	46,3%
Female	22	53,7%
Education		
Elementary	16	39%
Junior High	11	26,8%
High School	10	24,4%
PT	14	9,8%
Occupation		
Not Working	18	43,9%
Public Servant	1	2,4%
Private Employee	1	2,9%
Self-employed	12	29,3%
Housewife	9	22,0%
Income		
> Rp. 2.299.516.-	7	17,1%
< Rp. 2.299.516.-	34	82,9%
Duration of DM		
> 3 Months	36	87,8%
< 3 months	5	12,2%
Visit To Health Services		
>1 x in 1 month	25	61%
1 x in 1 month	16	39%

Table 4.1 shows that the majority of Type 2 Diabetes Mellitus respondents in the Pahandut Health Center work area, Palangka Raya City, are predominantly in the late elderly with an age range of 15 respondents (36.6%) (56-65 years) and the majority are female, namely as many as 22 people (53.7%) out of a total of 41 respondents. The education level of the respondents was mostly elementary school, namely 16 people (39%). In this study, it was found that 18 respondents did not work (43%) and the majority of respondents had a monthly income of <Rp. 2,299,516, namely 34 people (82.9%). Apart from that, it was also found that 36 respondents (87.9%), the majority of respondents had suffered from Type 2 DM for more than 3 months and 25 respondents (61%) underwent examinations at the nearest health service > 1 x in 1 month.

Tabel 2
relationship between self-esteem and diabetes distress in patients with type 2 diabetes mellitus at the pahandut community health center, Palangka Raya City in March 2023.

Variable	Diabetes Distress	
Self-Esteem	R	-0,328
	P value	0,036

The research results in table 2 show that there is a significant relationship between Self-Esteem and Diabetes Distress in Type 2 Diabetes Mellitus Patients at the Pahandut Community Health Center, Palangka Raya City ($P = 0.036$)

3.2. Discussion

Characteristics of Respondents by Age

From the results of the study on the age characteristics of respondents suffering from Type 2 Diabetes Mellitus are the late elderly with a vulnerable age of around (56-65 years) found as many as 15 people (36.6%). The results of this study are in accordance with (Aniska T, 2022) which says that increasing age a person can experience changes in person function and biochemistry. With an age vulnerable above 40 years, there is a high risk of Diabetes Mellitus disease. This is also in line with research (Nasution Fitriani, 2021) that respondents with the incidence of Diabetes Mellitus were 23 respondents and in the age group > 45 years there were 21 respondents. The older a person gets, the greater the risk of developing Diabetes Mellitus. The conclusion from the theory above proves that the age group > 54 years is more at risk of developing Type 2 Diabetes Mellitus because with increasing age, a person has a defense against infection that decreases, so that it becomes more susceptible to various problems and also experiences a decrease in organ function due to the impact of lifestyle when young.

Characteristics of Respondents Based on Gender

Based on table 4.1. above, that the characteristics of respondents based on gender were mostly female, 22 people (53.7%) and 19 male people (46.3%). This research is in line with that conducted by (Arania et al., 2021) and (Sylvia et al., 2019) which showed that women are at greater risk of developing Type 2 Diabetes Mellitus compared to men. Other research conducted by (Rosita et al., 2022) shows that women are more at risk of developing diabetes because physically women's bodies have a greater chance of increasing their BMI. Post-menopausal monthly cycle syndrome (premenstrual syndrome), which causes the distribution of body fat to easily accumulate due to hormonal processes, so that women are at risk of suffering from Type 2 Diabetes Mellitus. In addition, women tend to do less physical activity compared to men, so women are at risk There is a possibility of experiencing an increase in Body Mass Index (BMI).

Characteristics of Respondents Based on Education

From the results of the study on the characteristics of the most education level, namely elementary school as many as 16 respondents (39%) and followed by the 2nd most education level is junior high school (SMP) as many as 11 respondents (26.8%). The results of this study are in accordance with (Ahmad, 2018), that someone who has low education has a lower level of knowledge about health which causes a lack of sensitivity in knowing the disease. The level of education has an influence on the incidence of Diabetes because if an individual has a high level of education then he will have the awareness and knowledge in maintaining his health. This can increase self-awareness in living a healthy life and minimize complications due to diabetes (Permatasari & Suprayitno, 2020 dalam (Aulya S, 2022)).

Characteristics of Respondents Based on Occupation

From the results of the study on the characteristics of the respondents' work, it shows that the most are not working as many as 18 respondents (43.9%). This research is supported (Nasution Fitriani, 2021) that someone who does not do enough physical activity will be at risk of developing Diabetes Mellitus because it can cause a build up of fat and sugar in the body. Lack of physical activity causes glucose levels in the body not to become energy which causes an increase in blood sugar. According to the results of (Rayasari, 2019), it showed that people with low physical activity, such as farming, achieved 7.4%. Someone with low physical activity can have a buildup of lipids in the body, whereas in someone with heavy activity, the process of using glucose in the muscles will increase, so muscle work uses more blood glucose and fat as an energy source (Wati et al., 2023). Individuals who do not work may be at risk of experiencing uncontrolled sugar due to lack of physical activity which has an impact on the state of sugar levels in the body.

Characteristics of Respondents Based on Income

From the results of the study on the characteristics of income earned by respondents each month < Rp. 2,299,516, - as many as 34 respondents (82.9%). Research conducted by (Aji, 2022) shows that there is a relationship between income and the incidence of Type 2 DM due to a person's efforts to get a decent life by improving their health by regularly checking at the nearest health facility. Communities with low incomes will have fewer resources and find it difficult to access treatment in the long term. This can also be related to the ability to process one's lifestyle. Lack of income makes it difficult for someone to undergo therapy as recommended, it is difficult to get medication and have their health checked by health services.

Characteristics of Respondents Based on Duration of Diabetes Mellitus

From the results of the study on the characteristics of respondents who suffered from DM for > 3 months as many as 36 respondents (87.8%). This research is in line with research conducted by (Laili, 2019) which shows a significant relationship between the duration of suffering from DM and diabetes distress. A person suffers from Diabetes Mellitus for a long time because this disease is a chronic disease with a long recovery period (Webber, 2021). Long suffering from DM plays a role in the occurrence of distress in type 2 DM sufferers. People who have suffered from DM for a long time tend to have a mild level of distress. This happened because the person already has a better way of coping or adapting mechanisms to the condition of the disease. Patients who suffer from DM for longer will be better able to understand the conditions they feel, both in terms of physical, psychological, social relationships and the environment. According to (Ningrum et al., 2019) that Diabetes Mellitus sufferers who have a longer disease duration have experience in managing their disease with more appropriate self-care behavior. Patients who have suffered from Diabetes Mellitus for a long duration have a better understanding and find it easier to find information about Diabetes care

Characteristics of Respondents Based on Health Service Visits

From the results of research on characteristics 36 respondents had suffered from DM for > 3 months respondents (87.8%). This research is in line with that carried out by (Ahmad, 2018) regarding patient awareness of making regular visits to the nearest community health center. The factors that occur in this situation are the patient's desire to control blood sugar levels and the strategic location of health services. Patients with Type 2 Diabetes Mellitus are advised to check blood sugar levels and administer medication regularly to improve quality of life. Control and management of diabetes complications depends on ongoing interaction between healthcare providers and patients. In this interaction, patients and health care providers share information that can improve care in controlling diabetes. Health service providers also need to pay attention to their role in caring for patients by creating empathetic relationships and improving communication which can increase greater social support for patients where social support is associated with reduced distress. Diabetics' motivation to visit the nearest health facility can increase, encouraging them to control blood sugar and minimize diabetes complications. (Devi Sri M, & Mulia, 2019).

Relationship between Self Esteem and Diabetes Distress in Type 2 Diabetes Mellitus Patients

Based on the results of the above study, it is found that there is a significant relationship between self-esteem and diabetes distress in Type 2 DM patients at the Pahandut Health Center. With a correlation value of -0.328, which means that the higher the self-esteem of diabetes mellitus patients, the lower the diabetes distress experienced by Type 2DM patients with a p value of $0.036 < \alpha (0.05)$. Self-esteem plays an important role in physical and psychological well-being which is associated with satisfaction with life. Low self-esteem can have a negative impact such as increasing stress and the severity of an illness which makes it difficult to carry out daily activities (Putra et al., 2020). Type 2 DM patients feel guilty, stressed, angry, and helpless if they cannot control their disease such as failure to maintain blood glucose levels and poor health behavior so that sufferers will tend to blame themselves. This research is in line with (Ahmad, 2018) that Type 2 DM patients with high self-esteem can reduce Diabetes Distress related to life as a person with Diabetes Mellitus and succeed in self-management with a better quality of life. Other possible factors that can cause Type 2 DM patients to experience Diabetes

Distress are age, gender, education level, occupation, income, and duration of DM. There is a tendency for the female gender to feel difficulties in managing DM such as poor glycemic control, lack of support, and excessive stress towards DM disease, in addition to the low level of understanding of patients regarding how to cope with emotional distress caused by diabetes life, not working with a low level of income faced with high DM treatment costs and demands to meet family needs which can cause problems and high stress levels so that they can affect DM control, long experience of DM so that it triggers concerns about the disease that does not go away and there will be complications experienced. This is likely to trigger Diabetes Distress in Type 2 DM patients.

4. Conclusion

The results of the research show that the characteristics of the most respondents are late elderly, female, primary school education level, not working, monthly income of <Rp. 2,299,516, suffered from DM for more than 3 months and had an examination at the nearest health facility >1x in 1 month. The results of this study also show that there is a significant relationship between self-esteem and diabetes distress in Type 2 DM patients at the Pahandut Community Health Center, Palangka Raya City ($P=0.036$).

To increase the self-esteem of DM patients in order to reduce Diabetes Distress, they are advised to regularly visit health services to obtain new information about Diabetes and its management. Apart from that, it is necessary to increase the supportive role of family and those closest to them to support increasing the self-esteem of DM patients in order to reduce the level of diabetes distress they experience.

The limitation of the research in this study was that the environmental conditions when filling out the questionnaire were not conducive, so another time contract was made to visit the respondent's house to fill in the questionnaire. It is hoped that future research can examine other factors that can influence the occurrence of diabetes distress, so that we can find out the factors that most influence diabetes distress in type 2 DM patients.

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