

## The Effect of Providing Psychoeducation on Stress Levels of Patients with Type II Diabetes Mellitus

Fatmawati<sup>1\*</sup>, Haryanti Haris<sup>2</sup>, Jusniati<sup>3</sup>

Departement Psychiatry, Stikes Panrita Husada Bulukumba, Indonesia<sup>1</sup>

Departement Surgical Medical Nursing, Stikes Panrita Husada Bulukumba, Indonesia<sup>2</sup>

S1 Nursing Study Program Stikes Panrita Husada Bulukumba, Indonesia<sup>3</sup>

### ABSTRACT

#### Article Info

Article History:

Received: 9 January 2023

Revised: 1 April 2023

Accepted: 4 April 2023

**\*Corresponding Author :**

[nengfatma80@gmail.com](mailto:nengfatma80@gmail.com)

**DOI**

<https://doi.org/10.37362/jch.v7i1.985>

P- ISSN : [2722-1563](#)

E-ISSN : [2580-7137](#)



This is an Open Access article distributed under the terms of the creative Commons Attribution-NonCommercial4.0

International License, which allows others to remix, tweak, and build upon the work non-commercially as long as the original work is properly cited. The new creations are not necessarily licensed under the identical terms

Psychoeducation is an action that is given to individuals and families as a way to deal with difficulties in mental changes through the provision of information related to simple psychology or other information that affects people's welfare. This study aims to determine the effect of psychoeducation on the stress level of type II DM patients in the Working Area of the Caile Public Health Center, Bulukumba Regency. This type of research is a type of quantitative research. The design of this study used the "Pre Experiment One Group Pretest-Posttest design." Sampling was carried out by purposive sampling method with a total sampling technique. The research sample taken was 30 people from the total population of type II DM patients who experienced stress in the Work Area of the Caile Public Health Center, Bulukumba Regency. The measuring tool used is a questionnaire. The results of this study found that out of 30 type II DM patients who experienced stress levels before being given psychoeducation, the stress level of type II DM patients was in the moderate category, namely 28 people (93.3%), and after being given psychoeducation the stress level was in the moderate category. decreased to 16 people (53.3%). From the results of the Wilcoxon test, it was found that the value of  $p(0.001) < \alpha(0.05)$ , the result was that "There is an effect of providing psychoeducation on the stress level of type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency. Researchers hope that health workers can create a psychoeducation program as a tool to reduce stress levels in type II DM patients in the working area of the Caile Public Health Center, Bulukumba Regency.

**Keywords:** Psikoedukasi; Tingkat Stres; DM Tipe II

### INTRODUCTION

According to the World Health Organization (WHO, 2018) Diabetes Mellitus has become a health problem in the world. The prevalence and incidence of this disease has increased dramatically in industrialized countries and is one of the leading causes of death and disability in the world. The International Diabetes Federation (IDF) estimates that in 2017, there are 451 million people aged 18-99 years suffering from DM

worldwide, this number will continue to increase to 693 million in 2045 (Choddk,2018). Currently, almost 70% of DM patients live in poor countries and growing, and it is estimated that in the next 20 years the number will double (Moradi dkk 2018). In Indonesia, based on the results of Riskesdas, from 2013 to 2018 the prevalence of DM has increased from 6.9% to 8.5%, which means that  $\leq 22.9$  million Indonesians suffer from DM. Meanwhile, the highest number of people with diabetes are type II diabetics (Fatmawati, 2021).

From a number of studies conducted on depression and diabetes-related distress, it was found that those included as risk factors were female gender, age over 64 years, low education, presence of complications, major life events, poor glycemic control, and insulin treatment. (Fiber- Wildeboer, dkk., 2012 dalam (Kusristanti & Utoyo Lubis, 2019) . The prevalence of DM in South Sulawesi based on a doctor's diagnosis in people of all ages is 1.3%, based on a doctor's diagnosis at the age of  $\geq 15$  years is 1.83% and based on the results of blood sugar examination is 1.45%. Based on data from the Bulukumba District Health Office, it shows that there were 5,520 DM sufferers in 2018 and an increase in 2019 of 6,221 people, DM sufferers in 2020 decreased by 5,213 people, and there was an increase in 2021 by 5,477 people.

Based on observations made at the Caile Health Center, Bulukumba Regency, the incidence of type II DM from 2018 was 978 people, it decreased in 2019 by 711 people, and in 2020 the number of type II DM sufferers has increased by 988 people. The results of an interview with one of the officers at the Caile Health Center, Bulukumba Regency, said that the total number of type II DM patients in 2021 was 1,000 people, of which there were 288 male type II DM patients, and 712 female type II DM patients. Based on the results of interviews with several type II DM patients at the Caile Health Center, these patients experienced stress. Where one of the answers was that it was difficult to relax or relax because they thought about their illness.

One of DM patient education is psychoeducation. Psychoeducation is an education or education with a psychological concept approach that can be given individually or in groups. Based on the phenomenon that occurs, there are more and more people with diabetes mellitus while it is still very rare to research the application of treatment diabetes distress, so researchers are interested in conducting research entitled "The Influence of Psychoeducation on Stress Levels of Diabetes Mellitus Patients at the Caile Health Center, Bulukumba Regency."

## MATERIALS AND METHODS

This research is a quantitative study which uses a pre-experimental design with a one group pre test and post test approach. This research was conducted on 4 – 24 July 2022 in the working area of the Caile Community Health Center, Bulukumba Regency. In this study there were 30 respondents using a purposive sampling technique. The instrument used is a questionnaire sheet. The questions that have been prepared are then consulted with quantitative research experts. This study also uses smartphones and notebooks as research aids. Data analysis techniques in this study used univariate analysis and bivariate analysis by determining the relationship between the independent and dependent variables through the Paired T statistical test.

## RESULTS

**Table 1. Distribution of Respondents Based on Gender, Age, Education, and Occupation of Type II DM Patients**

Variable		Frequency	Percentage
Gender	Male	9	30,0
	Female	21	70,0
Age	40-49 Year	7	23,3
	50-59 year	14	46,7
	≥ 60t Year	9	30,0
Level Of Education	SD	8	26,7
	SMP	7	23,3
	SLTA	10	33,3
	D3	1	3,3
	S1	4	13,3
Work	Farmer	4	13,3
	Trader	2	6,7
	Civil Servants	3	10,0
	Armed Forces	1	3,3
	IRT	20	66,7
	<b>Total</b>	<b>30</b>	<b>100,0</b>

Based on table 1, it can be seen that 30 of the respondents suffering from type II DM in the Working Area of the Caile Public Health Center, Bulukumba Regency, as many as nine respondents (30%) were male, and 21 respondents (70%) were female.

**Table 2. Frequency distribution of stress levels in type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency, before being given psychoeducation.**

Stress Level Pre Test	Frequency	Percentage
Mild	22	6,7
Moderat	8	93,3

<b>Total</b>	<b>30</b>	<b>100,0</b>
--------------	-----------	--------------

Table 2 above shows the stress level of type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency, before being given psychoeducation, where respondents who experienced mild stress levels were two respondents (6.7%), and moderate stress were 28 respondents (93.3%) ).

**Table 3. Frequency distribution of stress levels in type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency, after being given Psychoeducation**

<b>Stress Level Post Test</b>	<b>Frequency</b>	<b>Percentage</b>
Mild	14	46,7
Moderat	16	53,3
<b>Total</b>	<b>30</b>	<b>100,0</b>

Based on the table above, the level of stress experienced by type II DM patients in the working area of the Caile Health Center, Bulukumba Regency, shows that the stress level is dominated by moderate stress, namely 16 respondents (53.3%), and mild stress by 14 respondents (46.7%).

**Table 4. The effect of providing psychoeducation on the stress level of type II Diabetes Mellitus patients**

<b>Stress Level</b>	<b>Pre Test</b>		<b>Post Test</b>		<b>P Value</b>
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	
Mild	2	6,7	14	46,7	0,001
Moderate	28	93,3	16	53,3	
Total	30	100,0	30	100,0	

Based on the Wilcoxon statistical test in the table above, the results obtained from 30 patients with type II DM, it is known that before being given psychoeducation, the stress level of patients with type II DM was in the mild category. Namely two people (6.7%) increased to 14 people (46, 7%) after being given psychoeducation. Vice versa, before being given psychoeducation, the level of stress in the moderate category, namely as many as 28 people (93.3%), decreased to 16 people (53.3%). So that from the Wilcoxon test, it was obtained a p-value ( $0.001 < \alpha (0.05)$ ), so the result was that "There is an effect of giving psychoeducation to type II DM patients in the Work Area of the Caile Health Center Bulukumba Regency.

## DISCUSSION

### 1. Analysis of the stress level of type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency before being given psychoeducation.

Based on the results of the research above, it shows that the stress level of type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency

before being given psychoeducation from 30 respondents, the stress level was in the mild category with a total of 2 people (6.7%), while the number of moderate stress levels namely 28 people (93.3%). Education with the aim of promoting healthy living, should always be carried out as part of prevention efforts and is a very important part of the holistic management of DM. (Aini, 2011 dalam Hati et al., 2021). One of the educational actions of DM patients is psychoeducation.

Psychoeducation is a form of education that can be carried out in individuals, families, and groups that focus on educating their respondents about significant challenges in life, helping respondents to develop social and support resources in dealing with these challenges, and developing coping skills to deal with these challenges. (Griffit, 2006 dalam Huzaimah, 2018). Psychoeducation is a therapy that is very easy to do, more efficient in cost and time, and is well received by patients. The application of psychoeducation for type 2 DM sufferers in Indonesia is still limited. So far, psychoeducation has focused more on intervening in psychological problems (Huzaimah, 2018). Psychoeducation is one element of the psychiatric nursing program that providing information and education through therapeutic communication. The psychoeducation program is an educational and pragmatic approach (Stuart & Suddeen, 2005) (Sari & Wardani, 2017).

This is consistent with the results of the study (Alfianto et al., 2021), that prior to psychoeducational activities (pte-test), 106 respondents (71.1%) had a level of stress due to emotional burden equivalent to moderate stress, due to health workers as many as 89 people (59.7%), due to treatment as many as 76 people (51.0%), and due to interpersonal as many as 88 people (59.1%). The researcher's assumption was that type II DM patients whose stress levels were moderate before being given psychoeducation said they had never been given information about how to reduce stress levels, either from the health workers or family, while type II DM patients whose stress levels were quite good said information about reducing stress levels. mostly from his family and himself.

## **2. Analysis of the stress level of type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba Regency after being given psychoeducation**

Based on the results of the above study, it shows that the stress level of type II DM patients in the Caile Health Center Work Area, Bulukumba Regency, after being given psychoeducation from 30 respondents, most of the stress levels were in the medium

category with a total of 16 people (53.3%), but there was an increase in stress levels mild, namely 14 people (46.7%). Psychoeducation is a form of modality therapy that provides information and education using therapeutic communication skills as a coping strategy in overcoming problems that are felt by both families and individuals (Desianti et al., 2020).

Psychoeducational therapy can be used to deal with problems of lack or deficit of knowledge and reduce stress and anxiety levels for individuals, families, and groups with mental disorders (Sari & Wardani, 2017). Referring to research by Alfianto et al., (2021) Stress Levels of Type 2 Diabetes Mellitus Patients in Rural Areas During the Covid-19 Pandemic in Carrying Out Self-Care Management. It is known that the stress level after being given psychoeducation is an indicator for reducing stress levels, where the stress level is due to emotional burden (2.31%), due to health workers (2.61%), due to treatment (2.00%), and due to interpersonal distress (2.03%).

Based on this (Rochmawati, 2018) suggests that the implementation of psychoeducational therapy gives positive results to patients, where patients get good and appropriate treatment so that their condition is controlled and increases their independence in fulfilling their needs and reduces the degree of relapse.

The researcher's assumption is that the decrease in the stress level of type II DM patients is due to the provision of psychoeducation to type II DM patients by researchers to respondents which is done 1 time so that when measuring stress levels after providing psychoeducation to type II DM patients, the respondent experiences a decrease in stress levels that were previously before being given psychoeducation, respondents who experienced moderate levels of stress then at the time of measurement after giving psychoeducation most of the stress levels of type II DM patients were in the mild category.

### **3. The effect of providing psychoeducation on the stress level of type II DM patients in the Working Area of the Caille Public Health Center, Bulukumba Regency**

Based on the results of the study, it was known that of the 30 respondents who experienced stress, 21 respondents (70.0%) were dominated female gender and those who experienced mild stress (6.7%) and moderate stress (93.3%). This was reinforced by a number of studies conducted on depression and diabetes-realized distress, which found that those included as risk factors were female gender, age over 64 years, low education, presence of complications, major life events, poor glycemic control, and

insulin treatment (Fiber-Wildeboer, dkk., 2012 dalam (Kusristanti & Utoyo Lubis, 2019)).

This research is also reinforced by recent research showing that mood changes can cause greater fluctuations in metabolic disorders, especially in diabetic clients. Prolonged mood swings affect the control of blood sugar levels. In clinical terms, as many as 30-50% of diabetic clients suffer from mental disorders. Clients with moods such as anxiety, frustration, depression, irritability, diabetes can worsen. Preliminary data obtained from interviews with 15 people with Diabetes Mellitus and their families found feelings of anger (47%), frustration (13%), anxiety/fear of not being able to recover (33%) and resignation (7%). This shows a negative emotional response to Diabetes Mellitus clients (Aini, 2019).

The results of this study were reinforced by previous research where the results of the Wilcoxon test analysis found that  $p < 0.05$  (0.000), which means that  $H_a$  is accepted, namely the effect of the application of psychoeducation on self-efficacy in type 2 DM patients. This is also in accordance with the research conducted by Hati (2014) that providing education can change patient treatment through the information provided to patients. Providing information to patients is a stimulus that can increase knowledge, giving rise to awareness to behave as expected.

Based on this, (Sari & Wardani, 2017) suggests that providing psychoeducation will increase individual independence where the characteristics of an independent individual include: having the freedom to behave, make decisions and not worry, stress, fear or shame if the decisions made taken not in accordance with the choices or beliefs of others. Having the ability to exchange root causes, overcome problems and various other challenges and difficulties without having to get guidance from parents or other adults, and be able to function independently in making decisions and implementing the decisions taken. Able to control himself and his feelings, so that he does not feel afraid, doubtful, anxious, annoyed and excessively angry in dealing with other people. Relying on oneself becomes an judge about what is best for him, and dares to take risks on differences in divinity and values that are believed even though he has to be in disagreement with others.

The researcher's assumption that after giving psychoeducation to DM type II DM patients who experience stress can reduce their stress levels and by providing psychoeducation to type II DM patients can increase knowledge about how to deal with stress, even though the disease is not cured but one must always think positively, giving

rise to the expected behavior.

### CONCLUSIONS

The stress level of type II DM patients in the working area of the Caile Health Center, Bulukumba Regency before being given psychoeducation was in the moderate stress category. After being given psychoeducation to type II DM patients in the Work Area of the Caile Public Health Center, Bulukumba district, the average stress level of type II DM patients was still in the moderate stress category but there was a decrease in stress levels. There is an effect of providing psychoeducation on type II DM patients who experience both mild and moderate stress in the Working Area of the Caile Public Health Center, Bulukumba Regency.

### REFERENCES

- Aini, N. (2019). Hubungan Kadar Gula Darah Dengan Pengendalian Emosi Pada Pasien Diabetes Melitus Rawat Inap.
- Alfianto, A. guntur, Ulfa, M., Kurniyanti, M. A., & Wicaksono, K. E. (2021). Tingkat Stres Penderita Diabetes Melitus Tipe 2 di Wilayah Pedesaan Selama Pandemi covid-19 dalam Melakukan Manajemen Perawatan Diri.
- Damayanti, S. (2016). Diabetes Melitus Dan Penatalaksanaan Keperawatan. Nuha Medika.
- Fatmawati, Stang, Palutturi, S., Amiruddin, R., & Syafari, M. (2019). Perkembangan Aplikasi Terapi Perilaku Kognitif Aplikasi Pada Manajemen Depresi Pada Pasien Diabetes Melitus Tipe II.
- Handayani, U. T. (2021). Studi Fenomenologi Pengalaman Penderita Diabetes Melitus Dalam Menjalani Penatalaksanaan Diabetes Di Wilayah Kerja Puskesmas Caile.
- Harahap, H. S., & Indrayana, Y. (2020). Peran Neuroprotektif Cognitive Reserve Dalam Menghambat Progresivitas Gangguan Kognitif Terkait Diabetes Melitus Tipe 2.
- Hati, Y., Fadillah, F., & Pase, M. (2021). Health Locus of Control Dan Self-Efficacy Pasien Dm Tipe 2 Dengan Penerapan Modifikasi Psikoedukasi. Jurnal Keperawatan Priority
- Hawari, D. (2013). Manajemen Stres, Cemas Dan Depresi. FKUI.
- LeMone, P., Burke, K. M., & Bauldoff, G. (2016). Keperawatan Medikal Bedah. Kedokteran



EGC.

Nugroho, C. (2016). Implementasi Motivasi Terhadap Penurunan HBA1C Pada Pasien Diabetes Melitus.

Nursalam. (2017). Metodologi Penelitian Ilmu Keperawatan. Salemba Medika.

Saam, Z., & Wahyuni, S. (2013). Psikologi Keperawatan. PT Raja Garfindo

Persada.Sugiyono. (2020). Metode Penelitian Kuantitatif, Kualitatif. Alfabeta, cv.

Sumantri, D. H. A. (2013). Metodologi Penelitian Kesehatan. Kencana Prenada Media Group.

Tampa'i, D. D., Lainsamputty, F., & Katiandagho, Y. (2021). Hubungan Stres Dengan Kualitas Hidup Pada Penderita DM Tipe 2 Di Kabupaten Poso.

Wijaya, Duriana, Y. (2014). Pelatihan Pengelolaan Emosi Dengan Teknik Mindfulness Untuk Menurunkan Distres Pada Penyandang Diabetes Melitus Tipe 2 Di Puskesmas Kebon Jeruk Jakarta.