

# The Effect of Pandemic-Related Anxiety Education on Blood Sugar Level Management in Individuals with Diabetes Mellitus

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## ABSTRACT

Anxiety is a feeling of worry, an unpleasant emotional state, and a feeling of apprehension. This study aims to find out "The Effect of Anxiety of Militus Diabetic Patients on Blood Sugar Control during the Pandemic. This research method reveals the causal relationship by involving a group of objects. Based on the results of the research from 6 respondents had an anxiety value of 49. The anxiety felt by 6 respondents can be identified from the indicators according to HARS, including many people who feel that they have a bad premonition as many as 6 people, tension 6 people, fear 6 people, sleep disorders 6 people, intelligence disorders 6 people, feelings of depression 6 people, somatic symptoms 6 people, sensory symptoms 6 people, cardiovascular symptoms 6 people.

**Keywords:** Ansietas, Diabetes Mellitus, Education

## BACKGROUND

An unpleasant emotional condition, a sense of fear, and worry are all components of anxiety. Fear and negativity are two distinct emotions that are associated with fear. The reaction to a known, external, explicit, or non-conflicting threat is fear. Some psychologists believe that anxiety is an emotional reaction to judgment, whereas fear is one of the fundamental human emotions. Dealing with negative circumstances frequently causes anxiety (Suryaatmaja & Wulandari, 2020). People who suffer from anxiety disorders typically feel tense, restless, anxious, fearful, and not free (Direja, 2011). An ongoing stress reaction is one of the first indications of anxiety. Blood sugar levels may rise as a result of an anticipated spike in stress hormones.

According to Soegondo (2011), diabetes mellitus (DM) is a group of symptoms that develop in a person when their blood glucose levels rise as a result of a gradual decline in insulin secretion brought on by insulin resistance.

Because the hormone insulin controls blood sugar balance, a decrease in insulin hormone synthesis will cause blood sugar levels to rise above the usual range. Uncontrolled diabetes mellitus frequently results in hyperglycemia, or elevated blood sugar levels, if it lasts for an extended period of time (WHO, 2008).

After eating or drinking, an increase in blood glucose levels triggers the pancreas to create insulin, which stops additional glucose level increases and causes blood glucose levels to gradually drop.

Factors that can affect blood glucose levels include an increase in the amount of food consumed, increased stress and emotional factors, weight gain and age, and exercise (Yunan Jiwintarum, 2019).

Anxiety and depression are problems in people with Diabetes Mellitus because they are related to reduced control of blood glucose levels (Wiyadi et al., 2013).

## METHODS

One type of design that is employed when carrying out research procedures is research design (Hidayat, 2009). This study is a pre-experimental study using a one-group pre-experimental research design with pretest and posttest.

This research approach uses a collection of objects to show the causal relationship. This approach involves observing the group of individuals both before and after the intervention (Nursalam, 2009).

Subject	Pre	Treatment	Post-test
KA	O	I	OI
KB	Time 1	Time 2	Time 3

Information:

K : Subject (Patient)

O : observation of anxiety before being given education

I: Intervention (anxiety management with education)

OI: Observation of anxiety after education.

## RESULTS

This chapter presents the findings of a study conducted at the Mangaran Health Center titled The Effect of Anxiety Education for Diabetic Mellitus Patients on Blood Sugar Level Control during the Pandemic. Six respondents were randomly selected for this study, which was conducted on June 13 and 20, 2022. During the pandemic, questionnaires were used to gather study data from the six responders. After then, the gathered data is shown in order to draw conclusions.

### Characteristics of respondents by age

From the results of the research, data on the age of respondents at the mangaran health center were obtained as follows:

**Table 1.** Distribution of respondents by age

NO.	AGE	SUM
1	50 years	1
2	61 years	1
3	57 years	1
4	63 years	1
5	66 years	1
6	54 years	1
		6

Source :d primary research questionnaire in 2022

Based on table 1 above, it is found that the age affected by diabetes mellitus is >45 years old.

Respondent characteristics by gender

From the results of the study, data on the gender of respondents

**Table 2.** Distribution of respondents by gender

No.	Gender	Frequency
1	Woman	4
2	Man	2
	Sum	6

Source : 2022 research questionnaire data

Based on table 2 above, it was found that the majority of genders were females as many as 4 people.

### Special Data

Identify anxiety levels before conducting anxiety education

**Table 3.** Frequency distribution of anxiety levels before being given anxiety education

No.	Respond	Before being given anxiety education
1	S	32
2	I	35
3	In	38
4	S	39
5	H	49
6	B	40

Data sources for the 2022 research questionnaire primary data

Based on the table 3 above, the results of the anxiety level before being given anxiety education were obtained with the highest score of 49 while the lowest was 32

Identify the level of anxiety after anxiety education

**Table 4.** Distribution of anxiety level frequencies according to anxiety education

No.	Respond	After being given anxiety education
1	S	8
2	I	8
3	In	9
4	S	8
5	H	11
6	B	9

Source : 2022 research questionnaire data

Based on table 4 above, the results of anxiety level after being given anxiety education with the highest nilai were 11 while the lowest was 8.

Analyze the effect of anxiety education on blood sugar level control

**Table 5.** Results of data normality before and after being given anxiety education

No.	Respond	Before being given anxiety education	After being given anxiety education
1	S	32	8
2	I	35	8
3	In	38	9
4	S	39	8

5	H	49	11
6	B	40	9

Source : primary data of the 2022 research questionnaire

Based on table 5, the results of the data normality test before being given anxiety education are  $> 14$  and the results of the data normality test after being given anxiety education are  $< 14$  which is stated to be normal data distribution because the p value result is  $> 14$ .

**Table 6.** Analysis of the pre-test test effect of anxiety education for people with diabetes mellitus on blood sugar level control during the pandemic

	Mean	Normal values	statistics
Pre-test	32-49	$< 14$	18-35
Post-test	8-11	$< 14$	Usual

Source : primary data of the 2022 research questionnaire

Based on table 6 above, the results were obtained that from 6 people who had anxiety levels before and after anxiety education, the results of the statistical test using HARS were obtained a score of 8. From the results of the analysis, it can be concluded that there is an effect of anxiety education on anxiety reduction in 6 respondents.

## DISCUSSION

Based on the results of the research from 6 respondents had an anxiety value of 49. The anxiety felt by 6 respondents can be identified from the indicators according to HARS, including many people who feel that they have a bad premonition as many as 6 people, tension 6 people, fear 6 people, sleep disorders 6 people, intelligence disorders 6 people, feelings of depression 6 people, somatic symptoms 6 people, sensory symptoms 6 people, cardiovascular symptoms 6 people. Anxiety and depression are problems in people with Diabetes Mellitus because they are related to reduced control of blood glucose levels (Wiyadi et al., 2013).

Covid-19 is a problem related to Diabetes Militus patients experiencing anxiety, therefore the anxiety that arises is due to several factors that cause anxiety during the covid-19 pandemic in the form of a lack of patient knowledge about covid-19 and a lack of knowledge about controlling stress.

Anxiety is a manipulation of mixed emotional processes, which occurs when people are experiencing emotional stress (frustration) and inner conflict (conflict). This anxiety has a conscious aspect, such as fear, shock, disbelief, guilt, guilt, threat, and so on. This anxiety is present in all mental disorders (Vide Beck, 2016).

Based on the results, the researcher gave a HARS (Hamilton Anxiety Rating Scale) questionnaire to 6 respondents who had received anxiety education, the results of the post test had an anxiety value of 8-10. The effectiveness of an anxiety education therapy felt by 6 respondents at the mangaran health center can be identified from indicators according to HARS, including feeling that they have a bad premonition as many as 2 people, tension 2 people, fear 1 person, sleep disorders 1 person, feelings of depression 1 person, somatic symptoms 1 person, sensory symptoms 1 person, cardiovascular symptoms 1 person, respiratory symptoms 1 person, gastrointestinal symptoms 2 people, urogenital symptoms 1 person, vegetatiof symptoms 1 person, and autonomic symptoms 1 person.

Unpleasant feelings generally cause physiological symptoms (such as shaking, sweating, increased heart rate, etc.) and psychological symptoms such as panic, tension, confusion, inability to concentrate, and so on (Suardana & Simarmata, 2013).

By providing anxiety education as a medium to solve anxiety problems in 6 respondents at the Mangaran Health Center, patients can control their stress. So that all thoughts and emotions that face it will disappear.

## **CONCLUSION**

Based on the objectives and results of the research on the effect of anxiety education for people with diabetes mellitus on blood sugar level control during the pandemic at the Mangaran Health Center, it was stated:

1. Anxiety before anxiety education was obtained as a result of the anxiety level before the action with the highest score of 49 and the lowest anxiety level of 32
2. Anxiety after anxiety education was obtained the lowest result was 8 and the highest anxiety level was 11.
3. The results of the statistical test using HARS can be concluded that there is an effect of anxiety education for people with diabetes mellitus on blood sugar level control during the pandemic at the Mangaran Health Center.

### **For Institutions**

The researcher's suggestion is expected to pay attention to the patient's psychological problems that can hinder the patient's healing process, the researcher suggests that the application of anxiety education in overcoming the patient's psychological disorders should be further developed.

### **For the Nursing Profession**

Research can be applied in nursing interventions in helping to overcome psychological problems.

### **Allocation of Research Land**

The suggestion from the researcher is expected so that anxiety education can be used as a counseling activity at the Mangaran Health Center. Because the results of the study show that anxiety education is very effective in overcoming psychological disorders in patients who visit the health center.

### **For Respondents**

Researchers suggest using health service facilities for consultation to reduce anxiety and get the right treatment.

### **For Researchers**

1. Increase understanding of the effect of anxiety education for people with diabetes mellitus on blood sugar level control during the pandemic at the Mangaran Health Center.
2. Gain practical experience and knowledge that supports the theoretical knowledge gained through research.

### **For future researchers**

Further research is needed with anxiety education that does not only focus on anxiety problems, especially on psychological disorders to motivate patients to recover. He also hopes that his follow-up researchers can use anxiety education to overcome other psychological problems as well as self-esteem, depression and stress.

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