

# ANALYSIS OF PREPARATION FOR IMPLEMENTATION OF POSYANDU TODDLERS IN NEW NORMAL CONDITION

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## ABSTRACT

With the Covid-19 outbreak hitting many countries in the world, including Indonesia, it has an impact on the implementation of posyandu, Posyandu is a form of social life in the community which is one form of community-sourced effort. The purpose of the study was to obtain a description of the behavior of mothers of children under five in preparing for the implementation of posyandu in new normal conditions.

The qualitative research design aims to obtain an overview of the preparation for the implementation of posyandu in new normal conditions in Solok City. The research was carried out in Solok City in 2021. Data were collected using in-depth interviews with informants of mothers of toddlers, cadres, people in charge of posyandu, Head of PPSDK, and Heads of The Department of Health then processed and analyzed the data

The results showed that most mothers of children under five did not know that the delivery person must be in good health to come to the posyandu. All mothers of toddlers said that they had prepared their masks to come to the posyandu, while the health officers and cadres were prepared by the health office. Almost all mothers said that one person brought their toddlers to the posyandu.

It is suggested that the results of this study can be used as input for making a policy regarding the importance of carrying out health protocols at every posyandu visit

*Keywords: Posyandu, toddlers, new normal*

## Introduction

Posyandu is seen as very beneficial for the community, so the government held a Posyandu revitalization program. The target of this Posyandu revitalization activity is all Posyandu with the main priority being Primary and Madya Posyandu. Toddlers' visits to the Posyandu are related to the mother's role as the person most responsible for the health of toddlers because toddlers are very dependent on their mothers. The main reason mothers bring toddlers to Posyandu is because they want their children to get maximum health services. Therefore, a mother's motivation in using Posyandu for toddlers has a big role in improving the health of her toddler (Palupi et al., 2013).

Based on PMK Number 43 of 2016 concerning Minimum Service Standards in the health sector, it is stated that every toddler gets standard services which include weighing at least 8 times a year, measuring length/height at least 2 times a year, giving vitamin A capsules 2 times a year, and giving immunizations. complete base. In Riskesdas 2018, weighing and measuring length/height are counted as 1 (one) if there is at least 1 weighing in the same month. If in a month there are 2 or more weighings, only 1 weighing is counted. Weighing does not include weighing carried out at the time the Riskesdas data collection was carried out (Ministry of Health, 2018).

Weighing is one of the main activities of a nutrition improvement program that focuses on preventing and improving children's nutritional status. Weighing infants and toddlers is an effort by the community to monitor their growth and development. Community participation in the weighing is described in the comparison of the number of children under five who are weighed (D) with the total number of children under five (S). The higher the community participation in weighing, the more data that can describe the nutritional status of toddlers (Yuliana, 2019).

Monitoring the weight of toddlers can be successful if there is active participation from the community which is marked by the presence of mothers weighing their children at the Posyandu. Age between 0-59 months is a very important period for child growth, so children need to be weighed regularly and growth can be followed her weight. Healthy children will grow rapidly, get older and gain weight. The results of the Basic Health Research show the prevalence of undernutrition and malnutrition is 17.7%, very short and short nutrition is (30.8%). The Posyandu program will be beneficial if toddlers visit the Posyandu actively and regularly. The regularity and activeness of visiting the Posyandu is very necessary for the participation of mothers (Ministry of Health, 2018) .

With the Covid-19 outbreak hitting many countries in the world, including Indonesia. The Covid-19 outbreak is not only a national problem in a country, but has become a global problem. The spread of Covid-19 is so fast and deadly, transmission through physical contact is transmitted through the mouth, eyes, and nose. Covid-19 has an impact on people's social life. The death rate due to the coronavirus in Indonesia is the highest in Asia after China, 181 people died, the percentage of deaths was 9.11%, the number of coronavirus cases was 1,986 cases, 134 people recovered. 164 people and 198 people died (Syafri, 2020).

The COVID-19 outbreak also has an impact on the implementation of Posyandu, Posyandu is a form of social life in the community which is a form of community resourced effort whose health services are provided from, by, and for the community to empower and provide convenience to the community in obtaining basic health services to accelerate the reduction in maternal and infant mortality. A toddler's visit to the Posyandu is the arrival of a toddler to the Posyandu to get health services such as weighing, anthropometric measurements, immunization, nutrition counseling, and so on so that they have to leave the house (Community & Gumayesty, 2017).

In the city of Solok, before the COVID-19 pandemic outbreak hit, Posyandu activities were held simultaneously every second Sunday, Wednesday, and Thursday every month. With the Covid-19 pandemic, the Posyandu implementation can no longer run as usual. From the results of interviews with health workers who are in charge of one of the Posyandu in Solok City, it was said that in March, May 2020 Posyandu in Solok City was carried out in health centers against targets that were immunized only. So that when viewed from the achievement of indicators of community participation, it is very low as measured by the number of targets compared to those who come.

With the end of the emergency response to the COVID-19 pandemic in Indonesia on May 29, 2020, at the beginning of June, the New Normal period was implemented in Indonesia, even though the curve of the corona case had not been sloping, the government continued to prepare for the implementation of New Normal or a new normal during the covid pandemic. People can return to their activities but still comply with health protocols, including activities at the Posyandu.

According to (Blum, 1982) the degree of health is influenced by four factors. These four factors are the determinants of the emergence of health problems, the four factors consist of behavioral/lifestyle factors (lifestyle), environmental factors (social, economic, political, cultural), health service factors (type of coverage and quality), and genetic factors (

descendants). Among these factors, human behavior is the biggest determinant and the most difficult to handle, followed by environmental factors.

To realize activities at the Posyandu which are accompanied by changes in community behavior, Green's theory (1980) explains that public health is influenced by *behavioralfactors* and non-behavioral factors. *behavioral factors* ). Behavioral factors are influenced by 3 main factors, namely: 1) Predisposing factors ( *predisposing factors*) are factors that facilitate or predispose to the occurrence of a person's behavior, including knowledge, attitudes, beliefs, beliefs, values, traditions, and so on. 2) *Enabling factors* manifested in the physical environment (availability of facilities, health facilities). 3) The driving factors ( *reinforcing factors* ) are manifested in the attitudes and behavior of officers. The occurrence of changes in health behavior (health *behavior* ) is not just knowing (*knowledge* ) and acting ( *attitude* ), but must be done in everyday life ( *Practice* ). The ultimate goal is for people to be able to live a healthy lifestyle (healthy *lifestyle*).

The results of the study (Komunitas & Gumayesty, 2017) show that education, work, the role of cadres, are related to toddlers' visits to Posyandu. Meanwhile, age, income, health facilities have no relationship with toddler visits to Posyandu. In line with research (Sukfitriyanti et al., 2018) Mother' knowledge about Posyandu for toddlers is quite good although there are still those who do not understand the lines in the Posyandu services for toddlers because they rarely go to Posyandu, but they understand and know the benefits. Mother's attitude towards the use of Posyandu for toddlers is generally very good, where the mother considers Posyandu very helpful because it is easier to reach and does not take too long and when there is counseling mothers need to set an example or practice it at home and it is very beneficial for family health. The actions of mothers or families towards the use of Posyandu for toddlers are generally very lacking, where mothers of toddlers do not have their initiative to come to Posyandu without being called by cadres or officers, they prefer to finish their work or wait for their children to wake up and they are even more enthusiastic about going to the Posyandu. Posyandu if there is the provision of vitamin A, PMT, and drugs.

## **Methods**

The qualitative research design aims to obtain an overview of the preparation for the implementation of posyandu in new normal conditions in Solok City. The research was carried out in Solok City in 2021. Data were collected using in-depth interviews with informants of mothers of toddlers, cadres, people in charge of posyandu, Head of PPSDK, and Heads of Department of Health. All qualitative data collection processes are recorded and then transferred into a written format (transcription). and analyzed.

## **Results and Discussion**

### **A. Result**

1. Toddlers and toddler carriers are in good health.

The day before the implementation of the posyandu, what mothers or toddlers who introduce to the posyandu must know is to make sure the condition of the child and the delivery person are in good health. This is very important to avoid disease transmission during posyandu implementation. Based on the results of interviews with respondents, it is known that most mothers of toddlers do not know that the introduction must be in a healthy condition, there are no symptoms related to Covid 19.

*"As far as we know, a hot child should not be brought to the posyandu, but if you are now a little afraid to take your child to the posyandu, especially if the child has a fever, it is not possible to bring it"*

The results of interviews with cadre informants found that some cadres said that they had informed the introduction and toddlers who came to the posyandu were in good health but had not explained the symptoms that were related to covid 19.

*"In the mosque it was announced that tomorrow there will be posyandu activities, mothers with toddlers are expected to come to the posyandu complying with health protocols, if fever is not allowed to come"*

**Table 1 . Construction of interview results for toddlers and introduction to healthy toddlers**

informant	Meaning Unit	Conclusion	Indicator
Inf , 2, 3, 5,6,7,8,10	Condition healthy if no fever	Mother toddler need knowing condition healthy without symptom covid 19	Knowledge mother
Inf,1, 2,4	Condition healthy arrived right use Protocol Health	Informed _ condition healthy that can come to Integrated Healthcare Center	Role cadre

#### 1. Prepare masks to come to the posyandu

Preparing masks to come to the posyandu is very important, to avoid the transmission of covid 19. if you have to leave the house or interact with other people whose health status is unknown (who may be able to transmit COVID-19). For mothers of toddlers, masks must be prepared by themselves. From the results of interviews with respondents, it is known that mothers of toddlers all prepare masks.

*"At home, there are always masks, and they are prepared by themselves. Besides that, if you go anywhere you have to wear a mask, sometimes there are also raids on the use of masks"*

From the results of interviews with cadre informants, mothers of toddlers or caregivers who come to the posyandu must prepare their masks. As for the cadres at the beginning of the COVID-19 pandemic, masks are prepared

*"The masks for us cadres were prepared at the beginning by the Health Service but lately no one has come again"*

The results of the interview with the informant in charge of the Posyandu that at the beginning of the COVID-19 pandemic all PPE for health workers and cadres were prepared

*"In the beginning, the cadres were assisted by being given PPE in the form of cloth masks, that was at the beginning of the pandemic, then the officers with full clothes, fashion, masks"*

Then it was also conveyed by the informant from the Head of the PPSDK that for health workers masks were prepared, including for cadres, but mothers of toddlers prepared their masks.

*"If the procurement of masks is indeed once a year according to the existing budget, it is held in the PPSDK field, precisely in the SDK Session, masks are only for officers, not for the mother."*

*"We always provide for the health workers, but for the cadres, it is according to the request of the puskesmas. "*

**Table 2 . Construction of Interview Results preparing masks to come to the posyandu**

<b>informant</b>	<b>Meaning Unit</b>	<b>Conclusion</b>	<b>Indicator</b>
Inf , 1,2,3,4,5,6,7,8,9,10	Prepare masks for come posyandu	Mother toddler will prepare your own mask	attitude mother
Inf , 1,2,4	in the beginning, before there is prepared by service Health	PPE preparations run out Prepare alone when	Role cadre
Inf , 17	PPE for officer health and cadre	Provision PPE procurement	Policy
Inf , 16	Procurement of masks is once a year	Policy Procurement of PPE in Solok City	Policy

## 2. Restrictions on introduction of 1 person to Posyandu

Interview results with the informant mother of toddlers, it was found that almost all of them said that the condition of the COVID-19 pandemic and gatherings were not allowed, so those who delivered toddlers to the Posyandu were only allowed 1 person

*"I usually go to the posyandu with my sister but because of covid 19 I came alone, I was afraid to bring my brother while his sister had to be immunized,*

According to several cadre informants, this was also conveyed to mothers of toddlers that due to the COVID-19 pandemic conditions and gatherings were not allowed, one person brought the toddlers to the posyandu.

*"There are posyandu activities, mothers with toddlers are expected to come, comply with health protocols, avoid gatherings for toddlers accompanied by mothers or grandmothers.*

This was also emphasized by the head of the service informant that the implementation of the posyandu refers to the existing rules and regulations such as the Minister of Home Affairs Instruction No. 30 of 2021 and the Regulation of the Minister of Health No.

Hk.01.07/Menkes/382/2020 Health Protocols for the Community in Places and Public Facilities in the Context Prevention and Control of Corona Virus Disease 2019 (Covid-19).

*"The implementation of our first posyandu refers to the instruction of the Minister of Home Affairs No. 30 of 2021 regarding the level of micro PPKM. In addition, in 2020 there will be a regulation from the minister of health that emphasizes the health protocol for the community."*

**Table 3. Construction of Interview Results Limitation of the introduction of 1 person to Posyandu**

<b>informant</b>	<b>Meaning Unit</b>	<b>Conclusion</b>	<b>Indicator</b>
Inf , 1,3,4,6,8	I come alone to Integrated Healthcare Center	Mother toddler/introduction limit come alone to Integrated Healthcare Center	Attitude mother

Inf , 11,13,14	avoid gather together child toddler delivered by mother or grandma .	Notice by cadre	Role cadre
Inf , 15	Implementation Integrated Healthcare Center refers to on instructions interior minister and regulation health minister	Policy Enforcement Restrictions Activity society	Policy

## B. Discussion

Before the implementation of the posyandu there was a New Normal Condition (H-1) There are some things that mothers should know, including a) Ensuring that the mother of toddlers/delivery and children are in good health to come to Posyandu, b) Prepare masks to come to Posyandu c) Limitation of the introduction of 1 person to Posyandu .

Public places and facilities are areas where people carry out social life activities and carry out activities to fulfill their needs. The risk of movement of people and the gathering of people in public places and facilities has a large potential for COVID-19 transmission. (Ministry of Health, 2020)

Health protocol is an effort to prevent and control COVID-19 in public places and facilities by taking into account aspects of individual health protection and critical points in public health protection, involving managers, organizers, or persons in charge of public places and facilities as well as the user community.

results research conducted \_ Afrianti and Cut (2021) , that 163 respondents known that is part large (74.2%) of the public own high knowledge \_ to protocol health. same thing obtained by Wiranti, Ayun, and Wulan (2020) where there is Public own good knowledge \_ to protocol health (55.3%)

## Conclusion and Suggestion

1. Some mothers of toddlers do not know that the delivery person must be in good health to come to the posyandu.
2. All mothers of toddlers said they had prepared their masks to come to the posyandu
3. Almost all mothers said that one person brought their toddlers to the posyandu.

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# **ANALYSIS OF COMPLIANCE WITH DM MANAGEMENT DURING THE COVID-19 PERIOD AT THE SOLOK CITY HEALTH CENTER**

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## **ABSTRACT**

Based on the 2018 Basic Health Research (RISKESDAS), one of the PTM whose prevalence has increased significantly is diabetes mellitus reaching 8.5%. prevalence in West Sumatra was 13,834, while the City of Solok was 1,796 in 2018. Diabetes mellitus can increase the risk of death in Covid-19 patients. The purpose of this study was to determine the compliance of Type-II DM patients in the management of the five pillars of DM (diet, taking medication, physical activity, education, and blood sugar control). This study used a descriptive-analytic cross sectional approach. The population was type 2 DM patients who visited the posbindu). The last 3 months amounted to 65 people. The results showed that adherence to medication, diet, education, and blood sugar control had a significant relationship with blood sugar levels with p value = <0.05. it turns out that the most dominant relationship with blood sugar levels is the regularity of taking medication with (p value 0.002) OR = 72.500. It is hoped that people who suffer from diabetes mellitus can understand the importance of implementing DM management. There is a policy from the Health Office involving family members to care so that the five pillars of DM management can be implemented properly so that DM patients can lead a life without complications.

Keywords: Adherence, DM Clients, Management, Five Pillars of DM

## **INTRODUCTION**

Non-communicable diseases (NCD) are one of the health problems that cause high mortality rates in Indonesia. The main non-communicable diseases that occur in Indonesia include hypertension, diabetes mellitus (DM), cancer, and chronic obstructive pulmonary disease. Based on Basic Health Research<sup>1</sup>. One of the PTM whose prevalence has increased significantly is diabetes mellitus, namely, in 2013 it was 6.9% and in 2018 it increased to 8.5%.<sup>1</sup> The international organization Diabetes Federation (IFD) estimates that there are at least 283 million people aged 20-79 years in the world suffering from diabetes in 2019 or equivalent to a prevalence rate of 9.3% of the total population at the same age. The prevalence of diabetics is 9% female and 9.65% male. It is predicted that this number will continue to increase to reach 587 million in 2030.<sup>2</sup> The results of Riskesdas 2018 show that the prevalence of diabetes mellitus in Indonesia based on a doctor's diagnosis at the age of 15 years is 2%. This figure shows an increase compared to the prevalence of diabetes mellitus in a population of 15 years in the 2013 Riskesdas results of 1.5%. However, the prevalence of diabetes mellitus according to the results of blood sugar examination increased from 6.9% in 2013 to 8.5% in 2018. This figure shows that only about 25% of diabetics know that they have diabetes.<sup>2</sup> The number of Covid-19 cases in Indonesia as of July 13, 2020, was 76,981, recovered cases were 36,689, and cases died were 3,656. Of all the confirmed cases, some patients already had comorbidities or comorbidities. Diabetes mellitus is one of the non-communicable diseases that has been reported to be suffered by some Covid-19 patients.<sup>2</sup> Based on the results of a preliminary study on Non-Communicable



Diseases (NCD) in Indonesia, it is still relatively high, one of which is Diabetes, the prevalence in West Sumatra is 1,396, while the City of Solok is 1,796 in 2018.<sup>6</sup> Diabetes is an important public health problem and is one of the four priority non-communicable diseases targeted for follow-up by world leaders. The number of cases and prevalence of diabetes has continued to increase over the last few decades.<sup>3</sup> Diabetes mellitus (DM) is a common chronic disease in adults that requires continuous medical supervision and patient self-care education. However, depending on the type of DM and the patient's age, the patient's nursing needs and care can be very different.<sup>16</sup> Based on the description above, it is necessary to optimize an approach or modification of the educational model during the pandemic to maintain adherence to diet, take medication, exercise, and control blood sugar and can optimize the implementation of the PTM Posbindu Program which focuses on the interaction system of DM patients to improve DM patient compliance in health management. Therapeutic management of diabetes mellitus management consists of 5 main pillars including education, nutritional therapy, physical activity, blood sugar monitoring, and pharmacological interventions.<sup>7</sup> The purpose of the study was to determine the compliance of Type II DM patients in the management of DM by complying with diet, taking medication, and carrying out physical activities, education, and blood sugar control during the COVID-19 pandemic in the Work Area of the Public Health Center in Solok City.

## Methods

This study uses a descriptive analytic cross sectional approach that is measuring the dependent and independent variables at the same time. The population is type 2 DM sufferers who visit the PTM Posbindu for the period April to June 2021 in the working area of Puskesmas throughout Solok City. Samples were adult patients aged 20–65 years, patients were taking DM medication, had controlled blood sugar in the last three months as many as 65 people. Data were collected by questionnaire. Data analysis in this study used univariate data analysis, bivariate with Chi-Square test, and multivariate with logistic regression.

## Results and Discussion

The results showed that type 2 DM patients were in compliance with DM management such as diet, taking medication, physical activity, education, and blood sugar control.

Table 1 Compliance with Type 2 DM patients in the management of DM (n=65)

Management of Diabetes Mellitus	f	%
Take medicine		
- Obey	26	40
- Not obey	39	60
Diet		
- Obey	30	45
- Not obey	35	55
Sport		
- Regular	8	12
- Irregular	57	88
Education		
- There is	14	35
- There is not any	51	65
Blood Sugar Control		

- Regular	34	58
- Irregular	31	52
Blood Sugar Level		
- < 200 mg/dL	35	53,8
- > 200 mg/dL	30	46,2

From the table above, it can be seen that more than half (60%) of respondents do not comply with taking medication, more than some (55%) of respondents do not comply with diet management, most (88%) of respondents do not do regular exercise, more than half (65%) respondents did not receive education according to the needs of the five pillars, and more than half (52%) did not regularly control blood sugar. Partial deficiency (46.2%) of the patient's blood sugar level > 200 mh/dl

### Bivariate Analysis

Table 2 The relationship between DM management and blood sugar levels

Variable	Blood Sugar Level						P-Value	OR	95% CI
	< 200mg/dL		>200mg/dL		Total				
	n	%	n	%	n	%			
Take medicine									
- Obey	25	96,2	1	3,8	26	100	0,000	72,50	8,6-606,4
- Not obey	10	25,6	29	74,4	39	100			
Diet									
- Obey	21	70	9	30	30	100	0,024	3,500	1,2-9,8
- Not obey	14	40	21	60	35	100			
Sport									
- Regular	4	50	4	50	8	100	1,000	0,839	0,1-3,6
- Irregular	31	54,4	26	45,6	57	100			
Education									
- There is	12	85,7	2	14,3	14	100	0,013	7,304	1,4-36,0
- There is not any	23	45,1	28	54,9	51	100			
Blood Sugar Level									
- Regular	27	79,4	7	20,6	34	100	0,000	11,08	3,4-35,2
- Irregular	8	25,8	23	74,2	31	100			

From the table above, it can be seen that of the 39 respondents who did not comply with taking medication, 74.4% experienced blood sugar levels > 200 mg/dL, the Chi-Square test results had a significant relationship with a p value of 0.000. Of the 35 people who did not adhere to the diet, 60% experienced an increase in blood sugar levels. Chi-Square test results had a significant relationship with a p value of 0.024. As many as 51 people who did not receive education on the five pillars of DM, 54.9% had high blood sugar levels. Chi-Square test results have a significant relationship with a p value of 0.013. A total of 31 people who did not regularly control blood sugar 74.2% had high blood sugar levels. Chi-Square test results have a significant relationship with a p value of 0.000.

Table 3. Multivariate Analysis Results

NO	Variable	Koef-B	P-Value	OR	95% CI
1.	Take medicine	4,406	0,002	72,500	5,2-1,2
2.	Diet	1,367	0,061	3,500	0,9-16,4
3.	Education	-0,214	0,880	7,304	0,0-13,0
4.	Blood Sugar Level	0,028	0,978	11,089	0,1-7,6

The table above shows that the results of logistic regression analysis using the backward method show that the variable that most influences blood sugar levels is medication adherence with OR = 72,500 (5,2 – 1,2)

## DISCUSSION

Disobedience to taking medicine because of a lack of understanding, according to them, when the body is comfortable, there is no need to take medicine, and they also forget, during this pandemic it is rare to control so you cannot get medicine. Some respondents chose the answer because the reason for not taking medication was also because they felt the side effects of the drug or were afraid of the side effects of the drugs taken every day. Oral diabetes medications such as glimepiride, metformin, and acarbose have some side effects such as stomach discomfort and can cause bloating or diarrhea.<sup>9</sup> This study is in line with<sup>11</sup> that 57% of DM patients have a low level of adherence, where the main reason for non-adherence is 42% of patients forgetting to take their medication. Patient adherence to medication plays an important role in the success of diabetes mellitus treatment.<sup>3</sup> According to research,<sup>12</sup> the factors that cause non-adherence to diabetes mellitus patients in treatment are forgetfulness (38.36%) and several other reasons such as busy activities, not routine control, boredom/ lazy, and tired.<sup>17</sup> Adherence to taking medication is an attitude or obedience to fulfill health recommendations without being forced to take action. A person is said to be obedient to taking medication during treatment if he takes medication according to the rules of the drug package and on time to take medication until completion of treatment. Regular.

Disobedience to the diet because of the lack of understanding about the importance of regulating eating, the explanation of the size / dosage of the diet that they should not get optimally. Respondents want a family to remind, or provide food according to the size, Dietary regulation adjusts to the calorie needs needed by people with diabetes mellitus, combined with their daily physical activity so that they are fulfilled properly. The settings include the content, quantity and timing of food intake (3 J-Type, Amount, Schedule) so that people with diabetes mellitus have an ideal weight and blood sugar can be well controlled.<sup>12</sup> The recommended diet for clients with type 2 diabetes mellitus is to eat a balanced composition of carbohydrates, protein and fat.<sup>12</sup> Healthy diet management is needed to regulate diet, so that people with diabetes get balanced nutrition, where the energy intake consumed is proportional to the physical activity carried out. Most of the physical activity/sports performed by DM patients (88%) were irregular, most of the patients assumed that their daily routine included exercise, they considered walking at home, gardening as exercise, even though it did not meet the requirements in the management of DM. Research<sup>13</sup> shows that patients with diabetes mellitus who do low physical activity tend not to be able to control their blood sugar levels compared to patients with diabetes mellitus who do

moderate and high physical activity. The ADA recommendation (American Diabetic Association) that physical exercise that can be done by type 2 diabetes mellitus clients is light exercise (regular walking) for 30 minutes, moderate exercise (brisk walking/jogging for 20 minutes and vigorous exercise (aerobic) for 20 minutes. 10 minutes.<sup>7</sup> Physical exercise should be done regularly at least three to five times a week at 30-minute intervals.<sup>4</sup> As many as 51 people who did not receive education on the five pillars of DM, 54.9% had high blood sugar levels. Chi-Square test results have a significant relationship with a p value of 0.013. Research<sup>14</sup> shows the need to continue to educate patients with diabetes mellitus who do not have a good diet in terms of the amount and frequency of eating. The provision of education and counseling is very important because diabetes is a disease that is related to the patient's lifestyle. By providing education and counseling, patients are expected to have sufficient knowledge about diabetes, which in turn can change their attitudes and behavior so that they are expected to control disease conditions and blood sugar levels and can improve their quality of life.<sup>14</sup> Diabetes mellitus patients who do not regularly control blood sugar show an increase in blood sugar, the results of interviews with participants that many still do not control their blood sugar regularly, because every posyandu does not always have blood sugar checks, and the patient's perception is still wrong, namely when the body feels healthy it is not Need for blood sugar control, regular blood sugar control Most sufferers already have a tool for self-examination. Family involvement to encourage people with diabetes to adhere to medication, behave in a healthy life, or modify their lifestyle to be healthier is also the key to the success of people with diabetes mellitus to control their disease.<sup>2</sup> Collaboration with family members is very important.<sup>2</sup>Collaborate with family members when setting goals related to family health to be achieved. Positive cooperative relationships are based on mutual respect and trust. Let the family take control as far as possible.<sup>8</sup>

## Conclusion and Suggestion

Adherence to taking medication, undergoing diet, education and blood sugar control were significantly related to blood sugar levels with p value <0.05 from the results of the multivariate test, it turned out that the most dominantly related to blood sugar levels was the regularity of taking medication with (p value 0.002) OR= 72,500. It is hoped that people who suffer from diabetes mellitus can understand the importance of implementing DM management. There is a policy from the Health Office involving family members to care, so that the five pillars of DM management can be implemented properly, so that DM patients can lead a life without complications.

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