



THE RELATIONSHIP OF ACTIVITY IN PARTICIPATING IN CHRONIC DISEASE MANAGEMENT PROGRAM ACTIVITIES (PROLANIS) WITH THE QUALITY OF LIFE OF DIABETES MELLITUS PATIENTS IN THE ONAN HASANG COMMUNITY HEALTH CENTER WORKING AREA, NORTH TAPANULI DISTRICT YEAR 2024

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ABSTRACT

Non-Communicable Diseases (NCDs), which are the highest cause of death in Indonesia, include Diabetes Mellitus (DM). The aim of the research is to analyze the relationship between activeness in participating in Prolanis activities and the quality of life of DM sufferers. The type of research is quantitative research with a cross-sectional research design approach. The research was conducted in the Onan Hasang Community Health Center working area, North Tapanuli Regency from December 2023 to March 2024. The research population was all Prolanis Program participants who suffered from DM in the Onan Hasang Community Health Center working area, North Tapanuli Regency, namely 103 people. The number of samples was determined using the Slovin formula and the accidental sampling method as many as 82 people. Primary data collection was carried out directly through questionnaires and secondary data was obtained from the Onan Hasang Community Health Center, North Tapanuli Regency. Data analysis was carried out univariate and bivariate. Univariate analysis was carried out to obtain a description of the research variables and bivariate analysis was carried out to test the hypothesis of the relationship between activeness in participating in Prolanis activities and the quality of life of DM sufferers. Hypothesis testing uses the Chi-square statistical test. The research results showed that the activeness in participating in Prolanis activities in the Onan Hasang Community Health Center working area, North Tapanuli Regency was 47.6% not good, 30.5% not good, and 22.0% good. The quality of life of DM sufferers was 67.1% poor and only 32.9% good. The results of hypothesis testing show that there is a relationship between activeness in participating in Prolanis activities and the quality of life of DM sufferers in the Onan Hasang Community Health Center working area, North Tapanuli Regency. This research provides recommendations to further increase participants' active motivation in participating in prolanis activities.

Keywords: *Prolanis, Diabetes Mellitus, Activeness, Quality of Life*

INTRODUCTION

Indonesia is experiencing an increase in the prevalence of non-communicable diseases (NCDs), which are the highest cause of death in Indonesia, one of which is diabetes mellitus (DM). The

prevalence of Diabetes Mellitus (DM) sufferers in Indonesia is ranked 7th out of 10 countries with the highest number of DM sufferers.



The World Health Organization (WHO) estimates that the high number of DM sufferers in Indonesia was 8.4 million in 2000 and will experience a spike of around 21.3 million in 2030. Likewise, according to the World Diabetes Association, there will be an increase in the prevalence of DM in Indonesia, namely 9.1 million in 2014 to 14.1 million in 2035 (Situmeang, 2019).

According to Basic Health Research (Riskesdas) in 2013, the prevalence of DM in Indonesia was 1.5%, while Riskesdas in 2018 reached 2.0%, meaning that the prevalence of DM in Indonesia increased by 0.5%. This was followed by an increase in the prevalence of DM in Indonesia based on blood tests in the population aged >15 years, namely 6.9% to 8.5% in 2018. This figure shows that there are new cases of around 25% of DM sufferers (Ministry of Health, 2019).

Based on the Health Profile of North Sumatra Province in 2019, the prevalence of Diabetes Mellitus sufferers was 249,519 sufferers and those receiving health services were 144,521 sufferers or 57.92%. The remaining 104,998 did not go to health services.

Based on the 2022 North Tapanuli District Health Service PTM Annual Report, it shows that the number of Diabetes Mellitus sufferers from 15 sub-districts and 21 Community Health Centers is 1,719 sufferers. From this data, the working area of the Onan Hasang Community Health Center, Pahae Julu District, has a total of 103 DM sufferers.

In order to improve the health status of the community and make social programs in the health sector a success, in accordance with Presidential Regulation Number 12 of 2013 concerning Health Insurance Article 21 Paragraph 1, one of the benefits obtained by participants of the Health Social Security Administering Agency (BPJS) is promotive health services and preventive measures, one of which is the Chronic Disease Management Program (Prolanis).

Prolanis is one of the preventive and promotive strategies of BPJS Health which is carried out to reduce or prevent complications of chronic diseases suffered by participants while minimizing the cost of health services. The target of this program is all BPJS Health participants with chronic diseases with the aim of encouraging participants to achieve optimal quality of life with an indicator that 75% of registered participants who visit FKTP have "good" results on specific examinations for Diabetes Mellitus and Hypertension.

BPJS Health as the Implementing Agency is a public legal entity formed to administer health insurance programs for all Indonesian people. BPJS Health creates programs, one of which is health care for participants who suffer from chronic diseases such as hypertension and diabetes mellitus, diseases that are often found in society. The Chronic Disease Management Program (Prolanis) is an integrated health service and proactive approach that involves BPJS health facility participants

who suffer from chronic diseases to achieve optimal quality of life (BPJS Health, 2014).

Prolanis' activities prioritize patient independence and serve as promotive and preventive efforts in dealing with chronic diseases. Prolanis' goal is to encourage participants with chronic diseases to achieve optimal quality of life and 75% of participants have "good" results on specific examinations for hypertension so that they can prevent disease complications (Idris, 2014).

Prolanis activities at the Onan Hasang Community Health Center, North Tapanuli Regency are routinely carried out every month. Based on data received by researchers, of the 103 registered participants suffering from DM, most were still less active in participating in prolanis activities. From the series of Prolanis activities that have been carried out by health workers at the Onan Hasang Community Health Center, it is necessary to evaluate the success of these activities. One evaluation is regarding participants' activeness in participating in prolanis activities and their quality of life, so that it can be seen whether the prolanis activities carried out have an impact on the participants' quality of life.

Therefore, this research aims to analyze the relationship between activeness in participating in chronic disease management program activities (prolanis) and the quality of life of diabetes mellitus sufferers in the Onan Hasang Community Health Center working area, North Tapanuli Regency in 2024.

METHOD

This type of research is quantitative research with the research design being cross-sectional with independent and dependent variables only one time at a time.

This research was conducted in the Onan Hasang Community Health Center working area, North Tapanuli Regency, starting from January to February 2024.

The population is all Prolanis participants who suffer from Diabetes Mellitus, totaling 103 people. Based on the results of calculating the number of samples using the Slovin formula, a sample size of 82 people was obtained using the accidental sampling technique.

Data was collected through interviews with the help of questionnaires and observations. Data analysis was carried out univariately to describe the frequency distribution of each variable. Bivariate analysis was carried out using the Pearson Chi-Square test at a confidence level of 95% with $\alpha < 0.05$.

RESULTS AND DISCUSSION

Respondent Characteristics

Respondent characteristics collected in this study include: Gender, age, length of time suffering from DM, marital status, highest level of education.

Gender

The results of research on gender are presented in table 1.

Table 1 Frequency Distribution of Respondents by Gender

No	Gender	Number (n)	Percentage (%)
1	Man	37	45.1
2	Woman	45	54.9
Amount		82	100.0

In table 1 it can be seen that the majority (54.9%) of the respondents in this study were female, the remainder (45.1%) were male. The results of this study are in accordance with research conducted in America, namely that women suffer from DM more than men, but in Augsburg it is 5.8 per 1,000/person/year in men and 4.0 per 1,000/person/year in women. . The results of this study prove that men and women have the same risk of developing DM. The results of this research are

supported by research in Indonesia conducted by Riskesdas in 2007, namely that the prevalence of diabetes mellitus does not differ according to gender. From the results of the Riskesdas research, it was found that the prevalence of diabetes mellitus for women and men was the same, namely 1.1% (Riskesdas, 2008).

Age

The results of research on age are presented in table 2.

Table 2 Frequency Distribution of Respondents by Age Group

No	Age	Number (n)	Percentage (%)
1	< 70 years	48	58.5
2	70 – 79 years old	24	29.3
3	> 79 years old	10	12.2
Amount		82	100.0

Based on the age groups as in table 2, the majority of respondents in this study were in the age group under 70 years (58.5%), followed by the age group 70 - 79 years (29.3%), the remainder were in the age group over 79 years (12.2%). The results of this study are in accordance with the opinion of Herdianti (2020) which states that as people get older, DM sufferers will experience physiological, anatomical and biochemical changes. This condition

will affect the ability to care for oneself, especially in managing the illness suffered, thereby impacting the quality of life (Kalyani R et al. 2020).

Suffering from DM for a long time

The results of research on the duration of suffering from DM are presented in table 3.

Table 3 Frequency Distribution of Respondents based on Length of Suffering from DM

No	Long Suffering	Number (n)	Percentage (%)
1	Under 1 year	27	32.9
2	Above or equal to 1 year	55	67.1
	Amount	82	100.0

Based on table 3, it can be seen that the majority (67.1%) of the respondents in this study had suffered from DM for more than or equal to 1 year, and the remainder (32.9%) had suffered from DM for more than or equal to 1 year.

The duration of suffering is also a factor that influences the quality of life of DM sufferers. Where, respondents whose duration of suffering from DM was ≥ 24 months were more at risk of having a poorer quality of life than those < 24 months. In line with previous research, sufferers who

have suffered from DM for a longer time, especially among the elderly, have poor quality of life scores, especially in physical aspects, independence and social participation, due to weakness resulting from the disease (Lima et al. 2018).

Marital status

The results of the marital status research are presented in table 4.

Table 4 Frequency Distribution of Respondents based on Marital Status

No	Marital status	Number (n)	Percentage (%)
1	Marry	30	36.6
2	Widow widower	52	63.4
	Amount	82	100.0

Based on marital status as in table 4 above, the majority (63.4%) of respondents are widows/widowers, the remainder (36.6%) are married.

The results of this study are in accordance with the opinion of Irawan D (2018), stating that individuals who are widows/widowers are more at risk of developing diabetes mellitus than unmarried individuals. The presence of a partner who always supports and

accompanies the patient when they are having difficulties regarding their health condition and needs help, the patient will feel more enthusiastic about living their life (Mikailiukštieņe et al. 2019)

Last Education Level

The results of the latest education level research are presented in table 5.

Table 5 Frequency Distribution of Respondents based on Last Level of Education

No	Last Education Level	Number (n)	Percentage (%)
1	basic education	76	92.7
2	Middle education	6	7.3
	Amount	82	100.0

Based on table 5, it is known that the majority (92.7%) of the respondents' final education level in this study was primary education, the remainder (7.3%) had secondary education.

The results of this research are in accordance with the opinion of Notoatmodjo (2018), stating that the level of knowledge will shape a person's way of thinking and ability to understand factors related to disease and use knowledge to maintain their health. Increasing the level of education will increase a person's awareness of living healthily by paying

attention to lifestyle and eating patterns. The level of education influences a person's diabetes mellitus. A person with a high level of education will generally have a lot of knowledge about health, so they will have more awareness in maintaining their health (Emawati F, et al. 2019).

Univariate Analysis

Univariate analysis is the result of analysis of each variable, both the independent variable (activeness in participating in Prolanis activities) and the dependent variable (quality of life of DM sufferers).

Table 6 Frequency Distribution of Activeness in Participating in Prolanis Activities in the Onan Hasang Community Health Center Working Area, North Tapanuli Regency in 2024

No	Activeness	Number (n)	Percentage (%)
1	Active	18	22.0
2	Less Active	25	30.5
3	Not Active	39	47.6
	Amount	82	100.0

Based on Table 6, it can be seen that the majority of respondents' activeness in participating in Prolanis activities in the Onan Hasang Health Center Working Area, North Tapanuli Regency (47.6%) is in the not active category, 30.5% is in the less

active category, and only 22.0% is in the bad category active.

From the results of this research, all respondents who did not actively participate in Prolanis activities said that they did not benefit from Prolanis activities.

Meanwhile, active respondents said that since taking part in Prolanis activities they are healthier, can monitor their health status, rarely feel body aches, and can become a place for friendship between fellow Prolanis members.

This is in accordance with research conducted by Ariana R, Sari CWM, Kurniawan T (2020) that actively participating in Prolanis activities can reduce complications from the disease suffered and can control the condition of the disease. On the other hand, inactivity in participating in Prolanis activities cannot control the condition of the disease and can

even increase complications from the disease suffered.

Prolanis activities are held once a month. The forms of activities include exercise, education, medical consultations or sharing experiences between prolanis participants, health checks by doctors, blood sugar checks and medication, as well as family gatherings twice a year held by BPJS Health at the district level. In this way, interaction between participants is indirectly established, so that the goal of no complications and optimal quality of life can be achieved. (BPJS Health, 2014).

Table 7 Frequency Distribution of Quality of Life for DM Sufferers in Work Areas Onan Hasang Community Health Center, North Tapanuli Regency in 2024

No	Quality of Life	Number (n)	Percentage (%)
1	Good	27	32.9
2	Bad	55	67.1
	Amount	82	100.0

Based on Table 7, it can be seen that the quality of life of respondents or DM sufferers in the Onan Hasang Health Center Working Area, North Tapanuli Regency, the majority (67.1%) is in the poor category, and the remaining 32.9% is in the good category. The longer a person suffers from DM, the higher the risk of other health problems occurring, this will of course lead to a decrease in quality of life (Hariani, et al. 2020).

Based on data obtained by researchers, participants who took part in Prolanis activities had a poor quality of life (Onan Hasang Health Center, 2023). Such

as changes in physical health (dizziness, gait, weight, sugar and salt consumption, sleep disturbances, fatigue, medication consumption, etc.), mental health (accepting criticism and suggestions, satisfaction with current life conditions, making decisions, hopes life), social health (confidence, socializing), spiritual health (grateful), and economic health (living expenses).

Bivariate Analysis

Bivariate analysis in this research is Activeness in Participating in Prolanis Activities as the independent variable and

Quality of Life of DM Sufferers as the dependent variable.

The Relationship between Activeness in Participating in Chronic Disease Management Program Activities (Prolanis) and the Quality of Life of DM Sufferers

The results of statistical tests regarding the relationship between activeness in participating in Chronic Disease Management Program (Prolanis) activities and the quality of life of DM sufferers are presented in table 8.

Table 8 Cross Tabulation of Activeness in Participating in Prolanis Activities with Quality of Life for DM Sufferers in the Onan Hasang Health Center Working Area, North Tapanuli Regency in 2024

		Quality of Life				Amount		p value
		Bad		Good		N	%	
		n	%	n	%			
Activeness in Participating in Prolanis Activities	Active	5	27.8%	13	72.2%	18	100.0%	0,000
	Less Active	19	76.0%	6	24.0%	25	100.0%	
	Not active	31	79.5%	8	20.5%	39	100.0%	
Amount		55		27		82		

Table 8 shows that of the 18 people whose active participation in Prolanis activities was in the good category, the majority (72.2%) had a good quality of life and only 27.8% had a poor quality of life. Apart from that, of the 25 people whose active participation in Prolanis activities was in the poor category, the majority (76.0%) had a poor quality of life and only 24.0% had a good quality of life. Furthermore, of the 39 people whose active participation in Prolanis activities was categorized as not good, the majority (79.5%) had a poor quality of life and only 20.5% had a good quality of life.

Based on the results of statistical tests, it shows that the p value = 0.000 or p value < 0.05, which means that there is a relationship between Activeness in Participating in Prolanis Activities and the Quality of Life of DM Sufferers in the Onan Hasang Health Center Working Area, North Tapanuli Regency.

The results of this research are in accordance with the BPJS Health statement (2014), stating that Prolanis activities are activities within the health service system and a proactive approach implemented in an integrated manner involving participants, health facilities and BPJS Health in order to maintain health for BPJS

Health participants who suffer from chronic diseases. to achieve optimal quality of life with cost-effective and efficient health services.

Prolanis activities encourage participants with chronic diseases to achieve optimal quality of life with an indicator of 75% of registered participants who visit First Level Health Facilities who have "good" results on specific examinations for DM and Hypertension according to the relevant clinical guidelines, so as to prevent the emergence of disease complications.

CONCLUSION

Seeing the relationship between active participation in Chronic Disease Management Program (Prolanis) activities and the quality of life of diabetes mellitus sufferers in the Onan Hasang Community Health Center working area, North Tapanuli Regency, it is necessary to make various efforts to increase their activeness, such as increasing the motivation of DM sufferers to participate in Prolanis activities so as to improve quality. his life.

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