

## Factors Influencing Active Participation in the Chronic Disease Management Program (Prolanis)

Ika Cahyaningrum<sup>1</sup>, Yanti Rosdiana<sup>2</sup>, Arifen Leihu Pajojang<sup>3</sup>, Erwanto<sup>4</sup>.

<sup>1,2,3</sup> Nursing Department, Faculty of Health Science, Tribhuwana Tunggal University Malang, Indonesia

<sup>4</sup> Nursing Department, Health Science Academy Kenedes Malang, Indonesia

ARTICLE INFO	ABSTRACT
<b>Article history</b> Received: Revised: Accepted: Available Online: 05 July 2024 Published Regularly: July 2024  <b>DOI:</b> <a href="https://dx.doi.org/10.33366/jc.v12i2.5746">https://dx.doi.org/10.33366/jc.v12i2.5746</a>  <b>Keywords:</b> Family support, service quality, Prolanis.  <b>Corresponding author e-mail</b> <a href="mailto:ikacahyaningrum86@unitri.ac.id">ikacahyaningrum86@unitri.ac.id</a>  <b>PUBLISHER:</b> <b>UNITRI PRESS</b> Jl. Telagawarna, Tlogomas-Malang, 65144, Telp/Fax: 0341-565500    This is an open access article under the <b>Creative Commons Attribution-ShareAlike 4.0 International License</b> . Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI. <b>CC-BY-SA</b>	Non-communicable diseases, such as hypertension and diabetes mellitus, are major contributors to high morbidity and mortality rates globally. To address this, the government has initiated the Prolanis program for BPJS Health participants, aiming to improve the health status of individuals with chronic diseases. However, preliminary studies involving Prolanis program coordinators at a Puskesmas revealed that the participation rate for medical consultations was below the target of 80%. This study aims to identify the factors influencing the activeness of Prolanis participants. Utilizing a quantitative approach with an analytic observational design, the research employed a cross-sectional method. The study was conducted at a community health center in Malang City from September to November 2023. The population comprised all Prolanis participants in the area, totaling 90 individuals, with a research sample of 73 participants. The sampling technique used was consecutive sampling. The independent variables investigated were education level, duration of illness, quality of service, and family support, while the dependent variable was the activeness of Prolanis participants. Data collection instruments included questionnaires for the independent variables and an observation sheet to measure participant activeness. The data were analyzed using a multivariate logistic regression test. The results indicated that family support and service quality were significantly related to the activeness of Prolanis participants, with p-values of 0.000 for both variables. Family support emerged as the most influential factor, with an odds ratio (OR) of 48.706. The study concludes that family support and the quality of health center services are significantly associated with the activeness of Prolanis participants, whereas education level and duration of illness are not related.
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## 1. INTRODUCTION

Degenerative diseases are another term for non-communicable diseases (NCDs). Non-communicable diseases are health problems that cause high morbidity and mortality worldwide. These types of diseases develop slowly and occur over a long period of time (Yankes Kemenkes, 2022). Some of the diseases included in NCDs are hypertension and diabetes mellitus. Data from the hospital information system in 2022 showed that hypertension cases accounted for the highest number of NCD cases in East Java at 195,225. This was followed by type 2 diabetes mellitus, which accounted for 172,917 cases (Dinkes Provinsi Jawa Timur, 2021). Similarly, in Malang City, the incidence of hypertension by 2022 reached 228,720 cases, while the prevalence of DM disease was still quite high at 22,227 cases. During the same period, hypertension and type 2 diabetes mellitus were included in the 10 major diseases in Malang City, ranking first and third respectively (Dinas Kesehatan Kota Malang, 2022).

The government has made efforts to improve the health status of people with chronic diseases, one of which is by organising the Prolanis programme for BPJS Health participants. Prolanis is a health service system that is implemented by involving participants, health facilities and BPJS Health to maintain the health of participants with chronic diseases, and improve the health status of participants and with efficient and effective health service financing (BPJS, 2014). One of the Prolanis programmes is medical consultation at primary health facilities. Medical consultations are conducted with the patient consulting a professional, where the consultation plan is mutually agreed upon. Health monitoring includes recording the participant's physical examination and support at each monthly visit, medication prescription for 30 days of treatment, and two health progress reports, namely the medical record at the primary health facility brought by the participant and the book to monitor the participant's health (BPJS, 2014). The existing phenomenon shows that not all Prolanis participants are compliant with carrying out these medical consultations. This phenomenon is in accordance with research conducted by Meiriana et al (2019), patients who adhere to regular health checks in the Prolanis programme are 50-60%.

According to Parinussa et al (2022), there are several factors that influence the compliance of Prolanis participants' visits, including family support, accessibility, and the role of health workers. In addition, the quality of service also affects the return of Prolanis patients to get treatment, because if the quality of service is good it will increase patient satisfaction (Tresna Putri et al., 2022). Employment and level of knowledge are also related to the utilisation of the Prolanis programme (Ilham Rosmin, Sudirman Andi Nuraina, 2023).

The results of preliminary studies with the person in charge of the Prolanis program at the Publik Health Centre, the level of activeness of Prolanis participants to come for medical consultations has not reached 80%. In addition, the results of interviews with 10 Prolanis patients who came to the Publik Health Centre, 4 people said they did not understand the Prolanis service procedures. 5 patients said they routinely came if a family member drove them. This study aims to analyse the factors that influence the activeness of Prolanis participants.

## 2. METHODS

### 2.1 Research design

This type of research is a quantitative study with an analytical observational design using the cross-sectional method, where each subject is observed only once, and observed at the same time.

### 2.2 Setting and Sample/Participants

The study was conducted at one of the Community Health Center (Puskesmas) in Malang City from September to November 2023. The population in this study were all Prolanis participants in the area as many as 90 people, with a research sample of 73 people. The sampling technique was carried out by consecutive sampling within some inclusion criteria including Prolanis participants who participated in the health consultation activities of the Prolanis program at the Puskesmas and respondents who had been Prolanis participants for at least 4 months and willing to become research subjects.

### 2.4 Measurement and Data Collection

The instrument used in the independent variable is a questionnaire to determine the level of education, length of illness, perception of service quality and family support. The service quality questionnaire developed a questionnaire from (Parasuraman, A. Zeithaml & L Berry (1988), which consists of 22 question items including parameters: tangibles, reliability, responsiveness, assurance, empathy. The family support questionnaire uses aspects of family support including indicators of emotional, instrumental, informational, and appraisal support (Friedman, 2010), with a total of 18 questions. The questionnaire has been tested for validity and reliability by the researcher. The instrument to measure the dependent variable on the activeness of Prolanis participants uses an observation sheet by looking at patient visit data in the patient's medical record in the last 4 months, with an active category if the frequency of respondent attendance is  $\geq 75\%$  attendance  $\geq 3$  times, and inactive if the respondent's attendance is  $< 75\%$  attendance  $< 3$  times (Atto'illah et al, 2021).

### 2.5 Data analysis

Data analysis was conducted to identify factors associated with the activeness of Prolanis participants using a multivariate logistic regression test. The purpose of this test was to analyze the predictor variables influencing the activeness of Prolanis participants.

### 2.7 Ethical considerations

The ethical principles applied in this study include respect for person, beneficence, justice, and informed consent. In applying the ethical principle of respect for person, researchers respect the autonomy of respondents, researchers are expected to respect the personal choice of respondents to make decisions independently (self-determination) in deciding to become research respondents. This research also does not pose a risk to the client (principle of beneficence). The principle of justice is applied by researchers at the time of data collection, researchers differentiate between respondents from one another. The researcher also gave an informed consent sheet to the respondent as proof of the respondent's willingness to participate in the study. On the inform consent sheet, the researcher explains the purpose and

benefits of the research, the procedure for data collection, information that the respondent has the right to withdraw during data collection, and guarantees data confidentiality.

### 3. RESULTS

Below is information regarding the characteristics of respondents such as age, gender and education level of respondents.

**Table 1. Frequency Distribution of Respondents' Characteristics**

Classification	f	Percent (%)
<b>Age</b>		
36-37 Years	4	5.5
46-55 Years	6	8.2
56-65 Year	34	46.6
≥ 65 Year	29	39.7
<b>Gender</b>		
Women	25	34.2
Male	48	65.8
<b>Education</b>		
Low	52	71,2
High	21	28,8
Total	73	100

Based on table 1 almost half of the respondents were aged 56-65 years old N = 34 (46.6%), the gender of the respondents was mostly female N = 48 (65.8%), and the respondents' education level were mostly in the low category (elementary and junior high school) of 52 (71.2%).

The following data covers the duration of illness, the quality of service and family support of respondents and the activeness of Prolanis participants.

**Table 2. Frequency Distribution of Duration of Illness, Quality of Service and Family Support and Prolanis Participants' Activeness.**

Classification	f	Percent (%)
<b>Duration of Illnes</b>		
≤5 Years	67	91.8
>5 Years	6	8.2
<b>Service quality</b>		
Less	22	30,1
Good enough	39	53,4
Good	12	16.4
<b>Family Support</b>		
Less	32	43.8
Good	41	56.2
<b>Prolanis Participant Activeness</b>		
Inactive	36	49,3
Active	37	50,7
Total	73	100

Table 2 presents the duration of suffering from chronic diseases (diabetes mellitus and hypertension). Almost all respondents had been suffering for less than or equal to 5 years, totaling 67 individuals (91.8%). The quality of health center services, as perceived by respondents, was predominantly rated as adequate by 39 respondents (53.4%). Family support was generally considered good by 41 respondents (56.2%). Additionally, the majority of participants were actively visiting the health center, with 37 individuals (50.7%) being classified as active.

**Table 3. Results of Bivariate Analysis of Factors Affecting the Activeness of Prolanis Participants**

Eating pattern variables	The Activeness of Prolanis						<i>P</i> -value
	Inactive		Active		Total		
	f	%	f	%	f	%	
<b>Education</b>							
Low	28	38.3	24	32.9	52	71.2	0,223
High	8	11	13	17.8	21	28.8	
<b>Total</b>	36	49.3	37	50.7	73	100	
<b>Duration of Illness</b>							
≤5 Years	33	45.2	34	46.6	67	91.8	0,650 (fisher exact test)
>5 Years	3	4.1	3	4.1	6	8.2	
<b>Total</b>	36	49.3	37	50.7	73	100	
<b>Service quality</b>							
Less	22	30.1	0	0.0	22	30,1	0,000
Good enough	12	16.4	27	37	39	53,4	
Good	2	2.7	10	13.7	12	16.4	
<b>Total</b>	36	49.3	37	50,7	73	100	
<b>Family Support</b>							
Less	26	35.6	6	8.2	32	43.8	0,000
Good	10	13.7	31	42.5	41	56.2	
<b>Total</b>	36	49.3	37	50,7	73	100	

Table 3 shows the results of the analysis of factors that influence the activeness of Prolanis participants to come for medical consultation to the Puskesmas, of the four independent variables there are two factors that influence the activeness of Prolanis participants with a p value <0.05, namely service quality and family support with a p value on both variables of 0.000. After bivariate analysis using Pearson's Chi-square test and Fisher exact test (if the conditions are not met). Then it will proceed to the multivariate test if the p-value is less than or equal to 0.25. Table 3 shows the variables that fulfil the requirements, namely the level of education, quality of service and family support.

**Table 4. Results of Multivariate Analysis of Factors Affecting the Activeness of Prolanis Participants**

Variables	Coefficient	Wald	p-value	OR	95%CI	
					Lower	Upper
Service quality	3,699	17,836	0,000	40,412	7,260	224,944
Family Support	3,886	15,980	0,000	48,706	7,247	327,335

Table 4 presents the results of the multivariate analysis using the Backward Conditional Step 2 logistic regression. The results indicate that both service quality and family support have a p-value of less than 0.05. The table also includes the Odds Ratio (OR) data, which represents the likelihood of an event occurring. Service quality has an OR value of 40.412, indicating that patients who perceive the quality of Community Health Center services to be good are 40.4 times more likely to actively attend Prolanis activities at the Puskesmas compared to those who perceive the quality of services to be poor. Similarly, the OR value for family support is 48.706, meaning that patients with good family support are 48.7 times more likely to be active in medical consultation activities at Prolanis compared to those with less family support.

#### 4. DISCUSSION

##### **Level of Education with the Activeness of Prolanis Participants.**

This study did not find a relationship between education level and the activeness of Prolanis participants. The results of this study are similar to the results of Basith & Prameswari (2020), there is no relationship between education level and health service utilisation. The high level of education of the community does not necessarily guarantee that the community will utilise access to health services, but the knowledge and information possessed by the community can influence decisions in using health services. Information about the benefits of Prolanis participation can be obtained by the community from health workers, family members, the internet, and other information media, causing people to use the Prolanis program regularly.

##### **Duration of Disease with Prolanis Participant Activity.**

The results showed that there was no correlation between the duration of illness and the participation of participants in the Prolanis programme. These results are in line with the research of Merlis & Alfiah (2022), there is no correlation between the duration of illness and the treatment compliance of hypertension patients. Patients who take treatment for too long feel bored with the treatment (Ihwatun et al., 2020). Patients who participate in medical consultations in the Prolanis programme received consultation facilities with doctors and prescription treatment for 30 days. If patients do not come regularly, the drugs that participants should take are also irregular, and the health of participants cannot be evaluated regularly.

The results showed that most of the Prolanis participants had a disease duration onset <5 years. Of these participants, the percentage of active and inactive participants was almost the same, with 46.6% and 45.2% respectively. This could be due to symptoms, or the severity of the disease. In hypertensive patients, some patients do not feel any symptoms of hypertension, despite high blood pressure. This is in accordance with previous research conducted by researchers that there is no difference in the incidence rate between respondents with stage 1 and stage 2 hypertension in the utilisation of primary health services for hypertensive patients (Cahyaningrum, 2023). This is because patients sometimes do not know their blood pressure is high. Some patients feel they do not need medical help because they do not feel symptoms. According to Souffront et al (2017), almost half of the hypertensive patient respondents in their study were asymptomatic. Similarly, with patients with diabetes mellitus, according to Anggraini & Rahayu (2017), there is no correlation between duration and DM patient compliance in taking medication. In line with research, there is no correlation between the



duration of DM suffering and the compliance of taking medication for type II DM patients in primary health care (Akrom et al., 2019).

### **Quality of Health Centre Services with Prolanis Participants' Activeness**

Table 3 shows that there is a relationship between service quality and the activeness of Prolanis participants in the programme. According to Armada et al (2020) there is a significant correlation between perceptions of service quality and the interest of patients' repeat visits to the Puskesmas. Patients who have a good experience with the services provided by the Puskesmas make patients interested in using these health services when they are sick. This is in line with the results of his research Mendrofa et al (2022), there is a relationship between the dimensions of service quality tangibles, reliability, responsiveness, assurance, empathy and empathy with the interest in patient re-visits to health facilities.

Community Health Center are health service center that provide individual and community special attention to health promotion and prevention activities in their working areas. One of the efforts to achieve these activities is through the implementation of the Prolanis programme in collaboration with BPJS. Puskesmas must also receive feedback from service users to increase user satisfaction and improve service quality. Therefore, many models and instruments exist to measure it. The indicators used by researchers to measure service quality at Puskesmas include tangible, reliability, responsiveness, assurance, and empathy. According to Lahdji et al (2015), tangible evidence is a variable that includes the presence or absence of supporting facilities such as rooms, equipment, staff, patient waiting rooms, service rooms. Realibility is the ability to carry out the promised service with customers and accurately. Responsiveness according to Lahdji et al (2015), is the attitude of medical and non-medical personnel provided by the service. Assurance is the knowledge and courtesy of employees and their ability to inspire and be confident, and empathy is the attention of officers given to their customers (Nursalam, 2014).

### **Family Support with Prolanis Participants' Activeness**

The results of this study are in line with Aodina's research (2020), family support affects the utilisation of the Prolanis program by participants. Family health support is an effort by family members to maintain and improve their health. For people with chronic diseases, family members (especially carers) must interact with health workers and health facilities must be involved in the process of caring for their sick family members and in the process of exchanging information (Kaakinen, 2010). According to Febriana & Mulyono (2022), there is a correlation between family support for hypertensive patients and their health behaviours such as caring for their health and routine control to health services.

### **Analysis of Factors Influencing the Activeness of Prolanis Participants.**

The results showed that family support had the strongest influence on service quality variables. Patients with good family support have a 48.7 times greater chance of actively following medical consultation activities in Prolanis activities, than respondents with less family support. The results of this study are in accordance with research (Ilham Rosmin, Sudirman Andi Nuraina, 2023), there is a correlation between family support and the activeness of Prolanis participants following the programme. Family support that can be provided in the form of material support, family motivation for participants to overcome anxiety when participating in Prolanis activities, and family encouragement for participants to continue to routinely follow the programme.

Family support for individuals with chronic illness can include emotional support, instrumental support, informational support, and appraisal support (Kaakinen, 2010). Research indicates that

family support includes support for undergoing treatment when sick, caring for sick family members, taking family members to therapy, and providing information and reminders about the benefits of attending Prolanis regularly.

## 5. CONCLUSION

The conclusion of this study is that there is a correlation between family support and the quality of Puskesmas services with the activeness of Prolanis participants. The most influential factor on Prolanis activeness is family support. It is suggested that future studies examine other factors that may be associated with the activeness of Prolanis participants. Additionally, it is recommended that nurses working at Community Health Centers educate families and patients about the importance of participating in the Prolanis program. Furthermore, health centers should improve service quality to increase patient interest and active participation.

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