



## THE ROLE OF CROSS-SECTORAL COOPERATION, FAMILY SUPPORT, AND KNOWLEDGE ON THE ACTIVENESS OF PROLANIS PARTICIPANTS

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### ABSTRACT

Prolanis is a proactive health service system and an integrated approach involving the community in health maintenance to achieve optimal quality of life with effective and efficient healthcare costs. Objective: The aim of this research is to analyze the cross-sectoral role, family support, and knowledge concerning the activity level of participants in the Prolanis program at the Cempaka Putih District Community Health Center. Method: This study was conducted at the Cempaka Putih District Community Health Center from November 2022 to July 2023 with 65 respondents based on total sampling. Data collection was done using questionnaires and interviews with three types of instruments, covering demographic data, Prolanis information and family support, and cross-sectoral roles. Data analysis employed Multiple Logistic Regression. The research revealed six variables with p-values < 0.05 in non-parametric tests: age, education, occupation, cross-sectoral roles, family support, and knowledge. Results: Logistic regression analysis resulted in p-values < 0.25 with odds ratios: age OR: 2.113; education OR: 2.695; occupation OR: 3.091; cross-sectoral roles OR: 1.431; knowledge OR: 2.179. Conclusions: There is a relationship between age, education, occupation, cross-sectoral roles, and knowledge factors with the activity level of Prolanis participants at the Cempaka Putih District Community Health Center.

Keywords: cross-sectoral role; diabetes; family support; hypertension; knowledge; prolanis

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### INTRODUCTION

Chronic diseases, according to the World Health Organization (WHO), are characterized by long duration, slow progression, and are influenced by genetic, physiological, environmental, and behavioral factors. Chronic diseases threaten progress towards the 2030 Sustainable Development Agenda, which includes the target of reducing by one-third the likelihood of death from one of the four major chronic diseases between the ages of 30 and 70 by 2030 (WHO, 2023). Data from the 2018 Basic Health Research (Riskesdas) indicates an increase in the prevalence of Non-Communicable Diseases (NCDs) in Indonesia, particularly in cases of hypertension and diabetes mellitus (DM). The prevalence of hypertension increased from 25.8% to 34.1%, while DM increased from 6.9% to 8.5%. Factors such as lifestyle, smoking, alcohol consumption, physical activity, and intake of fruits and vegetables are related to this rise (Kemenkes RI, 2019).

In 2019, DKI Jakarta recorded 260,663 DM sufferers and 2,655,351 hypertension sufferers. Chronic diseases are the leading cause of death and account for 60% of Indonesia's total public health expenditure (Dinkes Provinsi DKI Jakarta, 2020). In this context, the Chronic

Disease Management Program (Prolanis) becomes important with its preventive, promotive, curative, and rehabilitative approaches. Prolanis is an integrated healthcare system involving participants, healthcare facilities, and BPJS Health for maintaining the health of BPJS participants with chronic diseases (BPJS, 2022). However, challenges in its implementation are evident from the low participation rates, illustrated by the declining number of active Prolanis participants over time.

Knowledge, family support, and cross-sectoral roles are crucial factors in the success of this program. Good knowledge about the benefits of the Prolanis program has been shown to influence participation (Hutagalung et al., 2020; Khairatunnisa, 2022). Additionally, family support, as supported by related research, plays a significant role in the activeness of Prolanis participants (Parinussa et al., 2022; Putri et al., 2020). Cross-sectoral cooperation has also been proven to motivate the community to participate in this program (Estiani Ningsih, 2020). However, the COVID-19 pandemic has had a significant impact on the implementation of this program. The enforcement of Community Activity Restrictions (PPKM) led to the cessation of Prolanis activities, resulting in a decline in active participation. Therefore, increasing knowledge, family support, and cross-sectoral roles are key aspects that need to be considered in efforts to enhance Prolanis participant participation in the future.

Preliminary study data shows that knowledge about Prolanis among members at Puskesmas Kecamatan Cempaka Putih is still low, only 20%. Additionally, the challenges in Prolanis implementation are also reflected in the fact that active participant participation decreased during the pandemic, even after the program was reactivated in 2022 (Puskesmas Kecamatan Cempaka Putih, 2022). The aim of this research is to analyze the role of cross-sectoral cooperation, family support, and knowledge on the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih.

## **METHOD**

This research is a quantitative study with a comparative design. The variables in this study consist of respondent characteristics, including age, gender, education, occupation, cross-sectoral involvement, family support, and knowledge as independent variables. The dependent variable is the activeness in participating in the Prolanis program. It was conducted at Puskesmas Kecamatan Cempaka Putih from November 2022 to July 2023, with a total of 65 active Prolanis participants, selected through total sampling. The inclusion criteria for this study include Prolanis participants registered at Puskesmas Cempaka Putih who still reside or have an address in the Cempaka Putih area and Prolanis participants registered at Puskesmas Cempaka Putih who are in a cooperative condition. The exclusion criteria include Prolanis participants registered at Puskesmas Cempaka Putih who are currently hospitalized and Prolanis participants registered at Puskesmas Cempaka Putih who are currently outside of Cempaka Putih.

The data collection tools included questionnaires and interviews with three types of instruments covering demographic data, Prolanis information and family support, as well as cross-sectoral roles. The collected data was processed using SPSS for univariate and bivariate analysis with the Chi-Square test (significance level 5% and confidence interval 95%), and multivariate analysis with multiple logistic regression tests. Validity and reliability tests of the instruments were also conducted to ensure the accuracy of the data used in the study. The data analysis involved univariate analysis, bivariate analysis using the Chi-Square test with a significance level of 5% and a confidence interval of 95%, and multivariate analysis using multiple logistic regression tests. This study received ethical approval from the Nursing

Research Ethics Committee of the Faculty of Nursing, Universitas Muhammadiyah Jakarta, with number 0496/F.9-UMJ/IV/2023. Participants provided informed consent. The authors ensured that all procedures adhered to the appropriate guidelines and regulations.

## RESULTS

Puskesmas Cempaka Putih is a health center in the Cempaka Putih area and is one of the eight sub-district health implementing units under the supervision of the Central Jakarta City Health Office. Puskesmas Cempaka Putih has a vision of "Realizing a healthy and self-reliant Cempaka Putih community with quality and sustainable services." Its mission includes: 1) Continuously improving high-quality and competent human resources; 2) Enhancing the overall quality of services oriented towards customer needs; 3) Improving safe, comfortable, and quality facilities and infrastructure; 4) Increasing community empowerment in the health sector; 5) Enhancing cooperation and coordination with cross-sectoral entities. Prolanis is one of the control programs for non-communicable diseases and their risk factors in the national priority program at Puskesmas Cempaka Putih (Puskesmas Kecamatan Cempaka Putih, 2022).

Table 1.  
Distribution of Respondent Characteristics (n=65)

Characteristics	f	%
Age		
- Adult	52	80.0
- Elderly	13	20.0
Gender		
- Male	56	86.2
- Female	9	13.8
Education		
- Primary-Junior High School	29	44.6
- Senior High School-College	36	55.4
Occupation		
- Employed	35	53.8
- Unemployed	30	46.2
Cross-Sectoral Role		
- Not Involved	48	73.8
- Involved	17	26.2
Family Support		
- Not Supportive	44	67.7
- Supportive	21	32.3
Knowledge		
- Poor	51	78.5
- Good	14	21.5
Prolanis Activity		
- Inactive	16	24.6
- Active	49	75.4

Table 1 above, the majority of Prolanis participants at Puskesmas Kecamatan Cempaka Putih are elderly, with a total of 52 people (80.0%). Most participants are female, totaling 56 people (86.2%), and have primary to junior high school education, totaling 36 people (55.4%). A majority are unemployed, totaling 35 people (53.8%). Cross-sectoral involvement is noted by 48 people (73.8%). Respondents indicate family support by 44 people (67.7%), and knowledge is rated as good by 51 people (78.5%). Furthermore, the majority of respondents are active in Prolanis activities, with 49 people (75.4%).

**Table 2.**  
Relationship between cross-sectoral roles, family support, and knowledge with active participation in Prolanis

Characteristics	Prolanis Activity				p-value	Odd Ratio
	Inactive		Active			
	f	%	f	%		
Age					0.006	7.482
- Adult	43	66,2	9	13.8		
- Elderly	6	9.2	7	10.8		
Gender					0.857	0.032
- Male	42	64.6	14	21.5		
- Female	7	10.8	2	3.1		
Education					0.017	5.746
- Primary-Junior High School	26	40.0	3	4.6		
- Senior High School-College	23	35.4	13	20.0		
Occupation					<0.001	14.600
- Employed	33	50.8	2	3.1		
- Unemployed	16	24.6	14	21.5		
Cross-Sectoral Role					0.012	6.249
- Not Involved	40	61.5	8	12.3		
- Involved	9	13.8	8	12.3		
Family Support					0.018	5.563
- Not Supportive	37	56.9	7	10.8		
- Supportive	12	18.5	9	13.8		
Knowledge					0.013	6.196
- Poor	42	64.6	9	13.8		
- Good	7	10.8	7	10.8		

Respondent characteristics related to Prolanis activity using the chi-square test are age, education, occupation, cross-sectoral role, family support, and knowledge (p-value < 0.05). In contrast, gender is not related to Prolanis activity (p-value > 0.05) (Table 2).

**Table 3.**  
Multiple Logistic Regression Test Results

Variable	p-value	Odd Ratio	95% C.I.	
			Lower	Upper
Age	0.049	8.270	1.012	67.552
Education	0.007	14.805	2.106	104.073
Occupation	0.005	22.009	2.525	191.804
Cross-Sectoral Role	0.173	4.182	0.534	32.731
Knowledge	0.040	8.835	1.104	70.690

The analysis using multiple logistic regression shows that occupation is the dominant factor related to Prolanis activity. Respondents who are unemployed are 22 times more likely to actively participate in the Prolanis program compared to those who are employed.

## DISCUSSION

### Age

This study shows that the majority of those active in Prolanis activities are elderly, accounting for 66.2% of respondents, with a p-value of 0.006, indicating that age is related to the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. A survey revealed that many elderly people are enthusiastic about participating in Prolanis activities organized by Puskesmas Kebonsari Surabaya. According to the elderly who actively participate in Prolanis activities, engaging in health-promoting activities is crucial in old age, as their vulnerability to diseases increases, coupled with chronic conditions they may have.

Therefore, the elderly at Puskesmas Kebonsari reported that they utilize the provided health facilities and thus participate in Prolanis activities (Wardana, 2019). Engaging in health programs is common among the elderly because they require special attention regarding health. Additionally, elderly programs at Puskesmas are now designed to be enjoyable, so they do not feel bored. Elderly people also rely heavily on media such as radio or television for information on medication preferences, especially when choosing between branded and generic drugs. Access to health information is a key factor in health literacy. Research by Santosa (2012) indicates that access to health information is the most closely related factor to health literacy levels. Health information can be obtained from various media such as newspapers, magazines, television, radio, the internet, and directly from healthcare workers. Elderly individuals who can interact socially with neighbors and the community and participate in local activities tend to have better physical and psychological health, impacting their quality of life (Manafe & Berhimpon, 2022). Nurses play a role in improving the quality of life in the community by promoting the importance of Prolanis programs to adults, emphasizing that Prolanis is beneficial not only for the elderly but also for adults.

### **Gender**

The majority of those active in Prolanis activities are female, accounting for 64.6% of respondents, with a p-value of 0.857, indicating that gender does not affect the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. This finding aligns with Purnamasari & Prameswari (2020), who stated that gender does not determine participation in Prolanis programs at Puskesmas, with a p-value of 0.553. Similarly, Putri et al. (2020) found that gender does not significantly influence the utilization of Prolanis. However, female respondents tend to utilize Prolanis more than male respondents. According to Tawakal & Nadjib (2015), female respondents have a higher awareness of their health conditions and are more likely to use Prolanis to prevent the worsening of diseases. Women generally pay more attention to their health than men and are more likely to seek medical care. This may be related to the availability of time and opportunities for women to visit Puskesmas compared to men. However, currently, women may also have limited time due to work commitments (Purnamasari & Prameswari, 2020).

### **Education**

The majority of those active in Prolanis activities have a high school to tertiary education level, accounting for 40% of respondents, with a p-value of 0.017, indicating that education is related to the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. Education involves persuasion or learning to encourage individuals to take actions to maintain and improve their health. Health maintenance and improvement actions resulting from health education are based on knowledge and awareness gained through learning processes (Notoatmodjo, 2003). According to Sary & Puspasari (2018), education enhances community knowledge about health maintenance, impacting the implementation of Puskesmas programs, including the activeness in Prolanis. Education also increases the activeness of community health volunteers, positively influencing community health responses. This study aligns with previous research indicating that education is related to Prolanis utilization (Aodina, 2020; Putri et al., 2020). Higher education levels correlate with better Prolanis utilization compared to lower education levels, as lower education levels result in less information received and poorer understanding (Aswar, 2023).

### **Cross-Sectoral Role**

The study shows that the majority of cross-sectoral roles play a part in the activeness of Prolanis participants, accounting for 64.6% of respondents, with a p-value of 0.012, indicating

that cross-sectoral roles are related to the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. A systematic relationship or identifiable pattern exists between cross-sectoral support and Prolanis activeness, with changes in cross-sectoral support correlating with changes in Prolanis activeness. This indicates a dependency between the two variables. In the journal "National Action Plans to Tackle NCDs: Role of Stakeholder Network Analysis" by Rut F Hunter (2019), it is stated that multi-sectoral roles are essential in addressing non-communicable and chronic diseases, requiring cross-sector partnerships for prevention. Fatmawati et al. (2019) found that cross-sectoral collaboration involves cooperation between various programs to achieve common goals. Active and productive involvement from cross-sector elements is crucial for the success of health programs at the regional level. Therefore, cross-sectoral support and involvement are necessary to support community health programs, including Prolanis. Support from local officials, community leaders, and health volunteers can improve community health quality and assist in promoting the importance of health.

### **Family Support**

The majority of family support falls into the supportive category for Prolanis participants, accounting for 56.9% of respondents, with a p-value of 0.018, indicating that family support is related to the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. This signifies a significant relationship between family support and Prolanis activeness, indicating that changes in family support correlate with changes in Prolanis activeness. The significant relationship between family support and Prolanis activeness suggests a causal relationship between the two variables. Family support is a process involving relationships between family members and their social environment, enabling the family to function better and improve health, which includes attitudes, actions, and acceptance of family members. The family plays a role as a caregiver, emphasizing the importance of family influence on Prolanis members (Fatimah et al., 2018; Yudha & Hardy, 2020). This study aligns with research by Maryam et al. (2018), which found that family support is a significant factor affecting lifestyle and behavior, influencing health status and quality of life. Parinussa et al. (2022) also found that poor family support results in inactive participation in Prolanis among DM and hypertension patients, with 76.9% inactive. Based on research on the relationship between family support and the activity level of Prolanis Diabetes Mellitus participants at Talaga Bodas Health Center in Bandung, using the correlational method, it was found that there is a relationship between family support and the activity level of DM Prolanis participants (Ananda et al., 2020). Family support includes informational, evaluative, instrumental, and emotional support, providing a supportive environment for family members, reducing the mental health impact and encouraging Prolanis participation.

### **Knowledge**

Based on Table 1, the majority of respondents with good knowledge increase the activeness of Prolanis participants, accounting for 64.6% of respondents, with a p-value of 0.013, indicating that knowledge is related to the activeness of Prolanis participants at Puskesmas Kecamatan Cempaka Putih. A systematic relationship or identifiable pattern exists between knowledge support and Prolanis activeness, indicating a dependency between the two variables. Knowledge is crucial for patients in responding to and acting on health efforts, including participating in Prolanis. Knowledge is gained through observation and hearing. In Prolanis, educational activities are provided to all participants, both male and female, with the same material. This study contrasts with research by Kumullah & Chotimah (2021), which found a relationship between knowledge and hypertension patients' activeness in Prolanis (p-value = 0.035). Another study also found that knowledge level and disease severity perception are the

most influential factors in Prolanis participation (Ahmalia & Desriyenti, 2018; Fadila & Ahmad, 2021; Yudha & Hardy, 2020). Previous research states that active Prolanis participants can encourage those with chronic diseases to achieve a better quality of life and reduce the frequency of referrals to advanced healthcare facilities. Reducing the frequency of referrals to advanced healthcare facilities can make healthcare services more cost-efficient at these facilities (Febriawati et al., 2023). The utilization of Prolanis at the Jatirogo Health Center in Tuban Regency is influenced by the service information received by participants. The better the level of information participants have, the more likely they are to use Prolanis (Rahmawati et al., 2022).

Based on the discussion, the author can assume that older adults are more likely to participate actively in Prolanis due to their increased vulnerability to chronic diseases and the importance they place on health maintenance. Gender does not significantly influence Prolanis participation, though females may be more active due to higher health awareness. Higher education levels are associated with increased Prolanis activity, as educated individuals have better knowledge and understanding of health benefits. Unemployed individuals are more likely to participate actively, possibly due to having more available time. Cross-sectoral involvement significantly enhances Prolanis participation, emphasizing the importance of community support. Strong family support is crucial for active participation, as family encouragement motivates individuals to engage in health-promoting activities. Additionally, good knowledge about health and the Prolanis program significantly influences participation, underscoring the importance of health education and awareness

## **CONCLUSION**

The study concludes that occupation and education are the primary factors influencing Prolanis participation at Puskesmas Kecamatan Cempaka Putih. Individuals with specific occupations and higher educational attainment exhibit higher levels of engagement in the program. To enhance participation, tailored educational initiatives should target diverse educational backgrounds, while outreach efforts should include partnerships with local businesses to accommodate working individuals. Additionally, community engagement strategies should be employed to promote awareness and support among residents, particularly those with lower educational backgrounds. Continuous monitoring, feedback collection, and collaborative efforts with educational institutions are essential for optimizing the effectiveness and inclusivity of the Prolanis program..

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