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The Relationship between Participation in the Prolanis Program for Managing Chronic Diseases and the Level of Self-Efficacy in Hypertensive Patients at the Depok Jaya Health Center, Indonesia

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ABSTRACT

Background: Hypertension is one of the leading causes of death in the world, ranking third across several continents, with a prevalence rate of 25%. Hypertension, if not immediately treated, can cause premature death. In handling it, the Indonesian Government uses Badan Penyelenggara Jaminan Sosial Health to establish the Chronic Disease Management Programme Program (Pengelolaan Penyakit Kronis, Prolanis). It is hoped that Prolanis will be able to increase self-efficacy in hypertensive patients at the Depok Jaya Community Health Centre. **Objective:** This research aims to determine the relationship between participation in chronic disease management programmes and the level of self-efficacy in hypertensive patients at the Depok Jaya Community Health Centre. **Methods:** This research is quantitative research with a cross-sectional approach. The sample in this research is people with disabilities and hypertension who took part in the Prolanis programme activities, as many as 30 people selected using the total sampling technique. Data were analysed using Pearson Chi-Square with Fisher Exact Test results. **Results:** Results show that there is a significant relationship between participation in the Chronic Disease Management Programme and the level of self-efficacy in hypertensive patients at the Depok Jaya Community Health Centre (p value = 0.014). **Conclusion:** The conclusion in this study is that there is a relationship between participation in chronic disease management programmes and the level of self-efficacy in hypertensive patients (p value = 0.014) with the incidence of hypertension. Expected results in this study, hypertensive patients increased their self-efficacy.

Keywords: Cardiovascular Disease; Hypertension; Prolanis Program Participation; Self-Efficacy

INTRODUCTION

The most frequently encountered health problems today are non-communicable diseases. This disease is also the centre of attention because of its numbers, which continue to increase. One of the non-communicable diseases that is currently becoming the main concern is hypertension. Hypertension is said to be a measurement of pressure. Blood tests are performed within five minutes, and systolic blood pressure is obtained at 140mmHg with a diastolic pressure of 90mmHg (WHO, 2021).

Health development requires health efforts, resources, and management in order to create quality human resources that are useful, reduce disparities, strengthen welfare services quality, expand the diversity of welfare, ensure a balanced healthy life, and promote prosperity for the entire community and the entire country to achieve better public health development goals (Nappoe, Djasri & Kurniawan, 2023; Ginter, Duncan & Swayne, 2018). The prevalence of hypertension in Indonesia is among the highest in the five largest provinces. This includes West Java, which has the highest prevalence rate of hypertension, namely as many as 48,161 cases (29.4%) spread across 29 districts/cities within the age range of 18 years and over.

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According to WHO (2021), hypertension is a condition where blood vessels experience a persistent increase in pressure constantly. Blood is carried from the heart to all parts of the body in vessels. Every time the heart beats, it pumps blood into the vessels. Blood pressure is created by the force of the blood pushing against the walls of the blood vessels (arteries) as it is pumped by the heart. The higher the pressure, the harder the heart must pump. Hypertension is a serious medical condition and can increase the risk of heart, brain, kidney, and other diseases. Hypertension is a systolic blood pressure equal to or above 140 mmHg and/or diastolic blood pressure equal to or above 90 mmHg. From these definitions, it can be concluded that hypertension is a condition where systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg due to vascular disorders, which result in the supply of oxygen and nutrients carried by the blood being obstructed to the body tissues that need it. Self-care for people with hypertension includes controlling blood pressure, consuming medication, adopting a healthy lifestyle, and undergoing health screening for disease prevention (Sakinah & Amran, 2019; Carey, Moran & Whelton, 2022).

Self-efficacy is a psychosocial concept that is commonly used as a belief in the ability to manage beliefs, especially in medication adherence in managing chronic disease. Self-efficacy focuses on how much confidence the patient has in changing behaviour in order to support and develop health status in self-care management, for example, regulating diet, exercise, medication, and controlling blood pressure for life sustainability. Measuring self-efficacy includes several aspects, such as: magnitude (level of difficulty/size), strength, and generality. The level of self-confidence in individuals with hypertension can be assessed from patient consistency in compliance with physical activity and blood pressure monitoring. The role of efficacy is very influential on survival in the management of hypertension. This can have an impact on hypertension sufferers by improving their way of life (Huseini, 2021; Valenzuela *et al*., 2021).

Based on data obtained from preliminary studies at Unit Pelaksana Teknis Daerah (UPTD) (Regional Technical Implementation Unit), Depok Jaya Health Centre, there are only 30 hypertension sufferers who take Prolanis. The low number of Prolanis participants is inversely proportional to the high number of cases. Further appropriate research needs to be carried out to find out whether there is a relationship between Prolanis participation and the level of self-efficacy in hypertensive patients to reduce the high prevalence rates of hypertension and increase public awareness of the importance of Prolanis participation in programme activities. Based on research by Widianingtyas *et al*. (2021), there is a relationship between type 2 diabetes patients at Kembaran 1 Community Health Centre who participated in the Programme Management of Chronic Diseases and the level of self-efficacy, with analysis Spearman Rank correlation test *p* Value 0.000 ($P < 0.05$). The research results show that type 2 DM patients who took part in the Prolanis programme activities had levels of low self-efficacy (7%), moderate levels of self-efficacy (7%), and high levels of self-efficacy (86%).

METHEDOLOGY

The research uses a quantitative cross-sectional research approach. A cross-sectional study is defined as a type of observational research that analyses variable data collected at a specific point in time across a sample population or a predetermined subset. This cross-sectional research will emphasise time measurement or observation of independent and dependent variable data only happening at one time. Cross-Sectional is research to study the dynamics of the correlation between risk factors and effects, by an approach, observation, or data collection all at once at one time (point-in-time approach). That is, each subject in the study was only observed once, and measurements were taken on the character status or subject variables at the time of examination (Sugiyono, 2017). Researchers can analyse relationships between participation in the Chronic Disease Management Programme (Prolanis) and the level of self-efficacy in people with hypertension in the UPTD working area of Depok Jaya Community Health Centre. Prolanis programme participation variables and levels of data on self-efficacy in people with hypertension were taken at one time simultaneously.

The population in this study were all patients who suffered from diabetic wounds from 21st November 2023 to 21st January 2024 in the UPTD working area of Depok Jaya Community Health Centre. The sampling technique in this study is the non-probability sampling technique with Total Sampling, where the determination of the sample is based on the number of all respondents in the population to be used as a sample. The samples obtained in this study were 30 respondents. This research was carried out in the working area of the UPTD Puskesmas Depok Jaya, West Java Regency.

In this study, a questionnaire was used as the research instrument, which was distributed to respondents who fulfilled the specified criteria. The questionnaire to measure the Prolanis programme consists of 9 questions with positive alternative answer questions: always (4), often (3), sometimes (2), and never (1). For negative questions: always (1), often (2), sometimes (3), never (4). The questionnaire to measure the level of self-efficacy used the General Self-Efficacy Scale questionnaire, consisting of 10 questions with three answer choices, namely: feeling unable to do it, sometimes able to do it, and sure enough to be able to do it. The self-efficacy assessment scores range from a minimum score of 10 to a maximum score of 30. This research conducted a validity test in the Duren Seribu Community Health Centre area, Bojong Sari District. The validity of the self-efficacy questionnaire was tested using SPSS 26 with the Pearson Correlation method by comparing r calculated with r table with a 95% confidence level or 5% significance level. The Pearson product-moment correlation coefficient (Pearson's correlation, for short) is a measure of the strength and direction of association that exists between two variables measured on at least an interval scale. Instrument items are considered valid or relevant if r count > r table (0.707) as determined.

Ethical Consideration

The study has been ethically approved by the Research Ethics Committee of East Jakarta City Government Hospital, Indonesia with reference number 3874/DL.01 on 30th November 2023.

RESULTS

Demographic Data of Participants

Table 1: Distribution of Frequency Characteristics of Respondents Based on Gender

Gender	Frequency	Percentage (%)
Male	11	36.7
Female	19	63.3
Total	**30**	**100.0**

Table 1 shows that most of the respondents' gender is female, with 19 respondents (63.3%), and the rest are male, with a frequency of 11 respondents (36.7%).

Table 2: Distribution of Frequency Characteristics of Respondents Based on Age

Age	Frequency	Percentage (%)
40-50 year	5	16.7
51-60 year	10	33.3
61-70 year	5	16.7
71-80 year	7	23.2
81-90 year	3	10.0
Total	**30**	**100.0**

Table 2 shows that the most common age group is 51-60 years, with 10 respondents (33.3%), followed by 71-80 years with 7 respondents (23.3%), 40-50 years and 61-70 years with 5 respondents each (16.7%), and 81-90 years with 3 respondents (10.0%).

Table 3: Distribution of Frequency Characteristics of Respondents Based on Education

Education	Frequency	Percentage (%)
College	11	36.7
High School	12	40.0
Middle School	5	16.7
Elementary School	2	6.7
Total	**30**	**100.0**

Table 3 shows that most of the respondents' education levels are at the high school level, with 12 respondents (40.0%), followed by college with 11 respondents (36.7%), junior high school with 5 respondents (16.7%), and elementary school with 2 respondents (6.7%).

Table 4: Distribution of Frequency Characteristics of Respondents Based on Work

Work	Frequency	Percentage
Civil Servants	11	36.7
Sel-Employed	5	16.7
Housewife	14	46.6
Total	**30**	**100.0**

Table 4 shows that most of the respondents are housewives, with 14 respondents (46.6%), followed by civil servants with 11 respondents (36.7%), and self-employed individuals with 5 respondents (16.7%).

Table 5: Distribution of Frequency Characteristics of Respondents Based on Distance Travelled UPTD Puksesmas Depok Jaya

Distance Travelled	Frequency	Percentage
< 1 KM	0	0.0
1 Km – 3 Km	13	43.3
4 Km – 7 Km	10	10.0
8 Km – 10 Km	14	46.7
Total	**30**	**100.0**

Table 5 shows that the most respondents have a distance of 8 km – 10 km, with 14 respondents (46.7%), followed by a distance of 1 km – 3 km with 13 respondents (43.3%), and the smallest group is those with a distance of 4 km – 7 km, with 3 respondents (10.0%).

Table 6: Distribution of Frequency Characteristics of Respondents Based on Self-Efficacy

Self-Efficacy	Frequency	Percentage (%)
High (≥ 56 %)	28	93.3
Low (≤ 55%)	2	6.7
Total	**30**	**100.0**

Table 6 shows that, of the 30 respondents at the Depok Jaya Community Health Center, 28 respondents (93.3%) had a high level of self-efficacy, while 2 respondents (6.7%) had a low level of self-efficacy.

Table 7: Relationship to Chronic Disease Management Program Participation (Prolanis) with Self-Efficacy Levels in People with Hypertension

	High		Low			Total (%)	*P* Value
Prolanis Participations	*N*	**%**	***N***	**%**	**Total Participants**		
Good	26	100.0	0	0.0	26	100.0	0.014 (<0.05)
Bad	2	50.0	2	50.0	4	100.0	
Total	**28**	**93.3**	**2**	**6.7**	**30**	**100.0**	

Based on the results of Table 7, it shows that there is a relationship between participation in the chronic disease management program and the level of self-efficacy in people with hypertension at the Depok Jaya Community Health Center. Among the respondents with good Prolanis participation, 26 people (100%) had a high level of self-efficacy, while 2 people (50%) with poor Prolanis participation had a high level of self-efficacy. The result of this study shows that the p value = 0.014. This indicates that $p < 0.05$, so Ho is rejected, and Ha is accepted. This means that there is a significant relationship between participation in the chronic

disease management program and the level of self-efficacy in hypertensive patients at the Depok Jaya Community Health Center.

DISCUSSION

This study on the relationship between participation in chronic disease management programs and self-efficacy in hypertensive patients at Depok Jaya Health Center showed a *p*-value of 0.014 using Fisher's Exact Test in SPSS 26. This indicates a statistically significant relationship between the two variables. This specifies that $p < 0.05$, so Ho is rejected, and Ha is accepted, meaning that there is a relationship between participation in chronic disease management programmes and the level of self-efficacy in people with hypertension at the Depok Jaya Community Health Center.

From the results of interviews and questionnaires, it was found that individuals with hypertension who demonstrated good participation also exhibited high levels of self-efficacy. This is because they displayed strong confidence and motivation to recover and manage their condition effectively, with the ultimate goal of achieving freedom from the disease. Individuals with a high level of self-efficacy feel comfortable participating in the Prolanis programme; they can take advantage of existing health facilities, participate in healthy exercises, and meet with many people, which prevents them from staying at home without activities that benefit their health (Ulfa, 2021; Rachmawati, Prihhastuti & Zairina, 2019).

Additionally, some people with hypertension say that they are busy taking care of their grandchildren at home, which may be a consequence of the high level of stress they face. They said that participating in Prolanis activities helps reduce their stress levels at home, and some also say that taking care of their grandchildren is a fun activity that allows them to spend quality time with their family. Meanwhile, people with hypertension who have poor engagement and poor efficacy rates can be influenced by their physical and daily activities (Kurnia *et al.*, 2023; Firdaus & Idris, 2020).

According to the nursing theory, the Goal Attainment Theory is the most applicable framework. It focuses on interactive systems, which can be personal, interpersonal, and social. This conceptual system is a middle-range theory that originates from nursing practice and can be applied in clinical practice. This model emphasises that, as a nursing domain, this conceptual system defines the relationships between personal, interpersonal, and social systems. Human behaviour in various social situations is the unit of analysis in conceptual systems, because each system identifies humans as the core component. The individual, whether a patient or nurse, is an illustration of the conceptual system. To understand humans as individuals, King explores ideas about body image, growth and development, and self-perception.

The majority of Prolanis members suffering from hypertension at the Depok Jaya Community Health Center have a high level of self-efficacy. Disease management takes a long time to change someone's behaviour, but when the Prolanis programme has been implemented well, it has achieved its benefits and objectives. Self-efficacy is greatly influenced by patient commitment regarding compliance. Low levels of self-efficacy are influenced by non-compliance with the Prolanis programme, resulting in decreased patient quality of life and increased morbidity and mortality rates. The data obtained shows that Prolanis activities are able to improve self-efficacy in hypertension sufferers who comply with treating their disease. Regarding the relationship between chronic disease management programme participation and the quality of life of elderly people, the Chi-Square test results show $p = 0.000$. This indicates that $p < 0.05$, showing that there is a relationship between good Prolanis participation and the quality of life of the elderly. Data was obtained from 47 elderly (64.5%) who participated well in Prolanis and 19 elderly (35.5%) with poor Prolanis participation. This research is in line with research by Masruroh and Farida (2022), which indicates that the higher the level of self-efficacy, the higher the positive impact felt by the patient because it is their belief that helps provide confidence in the ability to address the problems they face and aid in the process of curing the disease.

Researchers assume that family members must provide space and time for other family members in managing their health. Participants in the Prolanis programme activities, which are routinely carried out every year once a month, and Prolanis healthy exercise activities, which are routinely carried out every Friday afternoon and Saturday morning, focus on efficacy results in the patient's belief that they can perform behaviours that support and improve their health. Self-care includes diet, physical activity, exercise, medication, and blood pressure control. When the patient is able to manage the disease, it means the patient

already has a high level of self-efficacy. Disease management and the level of self-efficacy are influenced by participation in the Prolanis programme, which includes medical consultation, health education, group education, Prolanis exercise, home visits, SMS reminders, regular health monitoring, and periodic medication distribution, all of which have been carried out well (Irawati, Sutomo & Claramita, 2019).

CONCLUSION

Based on the research findings, it can be concluded that the participation of individuals with hypertension in the Prolanis Program activities at the Depok Jaya Health Center UPTD Working Area falls into the good category, with 86.7% of participants actively involved. Additionally, the self-efficacy levels of individuals with hypertension in this area are predominantly categorised as high, with 93.3% of participants demonstrating strong confidence in managing their condition. Furthermore, there is a significant relationship between participation in the Prolanis chronic disease management program and the self-efficacy levels of individuals with hypertension at the Depok Jaya Health Center, as evidenced by a p value of 0.014.

The study suggests that for the successful implementation of the Prolanis program at the research site, collaboration with local cadres is essential to provide information on conducting home visits, following the established Prolanis guidelines. This approach is particularly important for Prolanis participants who do not attend monthly activities. Additionally, it is important to encourage hypertensive Prolanis participants to recognize the value of maintaining good self-efficacy, as it can lead to more positive behaviors, help prevent illness and promote overall health.

Recommendation

It is recommended that future research must investigate Prolanis program activities using different variables and methodologies not addressed in the current study. This approach can offer a deeper understanding of the relationship and significance of participation in Prolanis activities. Additionally, it will help identify other factors influencing the effective utilization of the Prolanis program, ultimately enhancing its impact on improving community health outcomes.

Limitation

The limitations of this study include a small sample size, limited research time, and the cultural factors of the respondents in the hypertension Prolanis group at the Depok Jaya Health Center. Future studies must explore the Prolanis Program activities with different variables not covered in this study and to use alternative methods to gain deeper insights into the significance of participation in Prolanis activities. This approach will help identify additional factors influencing the utilization of the Prolanis program and its impact on community health, ultimately leading to improvements in the program's effectiveness.

Conflict of Interest

The authors declare that they have no conflict of interest.

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