

THE INFLUENCE OF SOCIAL SUPPORT ON PROLANIS PARTICIPANTS' COMPLIANCE WITH CONTROL: THE MEDIATION ROLE OF SELF-EFFICACY AT THE MUHAMMADIYAH UNIVERSITY OF PURWOKERTO DUKUHWALUH CLINIC

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Abstract

This study aims to analyze the effect of social support and self-efficacy on control compliance in Prolanis participants. The research method used is quantitative with the Partial Least Square (PLS) approach. The results of the hypothesis test showed that social support had a significant effect on control compliance ($T = 7.338$; $p < 0.000$) and self-efficacy ($T = 24.572$; $p < 0.000$). However, self-efficacy did not have a significant effect on control compliance ($T = 0.346$; $p = 0.730$) and did not moderate the relationship between social support and control compliance ($T = 0.341$; $p = 0.733$). These findings indicate that social support is more dominant in increasing control compliance than individual self-confidence. This study has limitations in the cross-sectional design and limited scope of respondents. Further research is recommended using a longitudinal approach and mixed methods to expand understanding of chronic patient health behavior in a community context.

Keywords: Social Support; Control Compliance; Self-Efficacy

INTRODUCTION

The prevalence of non-communicable diseases such as diabetes mellitus and hypertension in Indonesia has increased significantly in recent years, as reported by Riskesdas 2018. This has caused a significant economic and social burden, especially on the National Health Insurance (JKN) system. In response, BPJS launched the Chronic Disease Management Program (Prolanis) which is implemented through Primary Health Facilities (FKTP) including the Pratama Clinic of Muhammadiyah University of Purwokerto Dukuwaluh. Although this program has been running since 2018, the level of participant compliance with routine check-ups is still low and has not reached the national target (PERKENI, 2021). The phenomenon of low compliance with Prolanis patient controls is a serious challenge in optimizing chronic disease management (Prasetya, 2023). One of the contributing factors is the lack of social support received by patients, especially from family and the surrounding environment. Low social support can weaken patient motivation to undergo periodic check-ups even though education programs have been implemented routinely. This condition shows a gap in the implementation of promotive-preventive policies and the level of active participation of patients in managing their disease (Ganjar, 2016; Indriani et al., 2015).

Several previous studies have revealed that self-efficacy is an important psychological factor that can encourage healthy behavior, including adherence to treatment and health control. Individuals with high self-efficacy tend to be more confident and motivated to follow treatment and maintain their health independently (Khalili Azar et al., 2024). However, self-efficacy is also greatly influenced by the social support received by individuals (Dural & Aktur, 2023; Karimy et al., 2018; Khalili Azar et al., 2024; Maeda et al., 2013). This complex relationship shows that the interaction between social support and self-efficacy plays a major role in patient control adherence to Prolanis (Dural & Aktur, 2023).

The novelty of this study lies in the effort to investigate the mediating role of self-efficacy in the relationship between social support and control compliance in the local context of Indonesia. Previous studies have mostly been conducted abroad with different socio-cultural backgrounds and health systems, so the results are not always relevant to the Indonesian context. There have not been many studies in Indonesia that explicitly test the mediation mechanism, especially in the implementation of Prolanis in FKTP such as university clinics. Therefore, this study offers a new empirical contribution by testing the mediation model in the context of primary health care. This study is based on Social Cognitive Theory (Bandura, 1997), which explains that human behavior is influenced by the interaction between personal factors, the environment, and the behavior itself. This theory emphasizes the importance of self-efficacy as the main cognitive construct that drives individual actions in overcoming health challenges. In this context, social support functions as an external source that can strengthen a person's self-efficacy in consistently undergoing health control. Therefore, this theory is very relevant to underlie the conceptual framework of research that examines the relationship between social support, self-efficacy, and control compliance.

Several previous studies have produced inconsistent findings regarding the mediating role of self-efficacy. For example, Khalili Azar's study showed that self-efficacy fully mediated the relationship between social support and adherence, while Dural found both direct and indirect effects. This inconsistency may be due to differences in cultural context, patient characteristics, and the health service approaches applied. This indicates a research gap that needs to be bridged through further studies in the local Indonesian context (Dural & Aktur, 2023; Karimy et al., 2018; Khalili Azar et al., 2024; Maeda et al., 2013). Considering the differences in study results and local specificities, it is important to re-examine the model of the relationship between social support, self-efficacy, and control adherence in the Indonesian FKTP environment. This study seeks to provide a more contextual understanding of the psychosocial dynamics that influence the success of the Prolanis program. The results obtained are expected to be used to improve social support-based intervention strategies that strengthen self-efficacy. Thus, the effectiveness of the Prolanis program in managing chronic diseases can be more optimal. The general objective of this study was to explain the influence of social support and self-efficacy on the control compliance of Prolanis participants at the Pratama Clinic of Muhammadiyah University of Purwokerto Dukuhwaluh. Specifically, this study aims to analyze the influence of social support on self-efficacy, as well as the influence of self-efficacy on participant control compliance. In addition, this study also aims to test the direct influence of social support on control compliance, and identify the mediating role of self-efficacy in the relationship. The findings of this study are expected to provide theoretical and practical contributions to the development of community-based intervention models in improving Prolanis patient compliance.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Social Cognitive Theory

Social Cognitive Theory developed by Albert Bandura emphasizes the importance of interaction between individuals, the environment, and behavior in shaping a person's actions. One of the main concepts in this theory is self-efficacy, which is an individual's belief in their ability to manage and complete certain tasks. This theory states that a person will be more likely to take action if they believe they are able to do it successfully. In the context of health, this theory is used to understand how individuals motivate themselves to consistently carry out healthy behaviors (Bandura, 1997). The application of social cognitive theory in this study is the basis for explaining how social support can increase self-efficacy, which ultimately affects patient compliance in undergoing routine controls. Self-efficacy acts as a mediator that connects external influences such as social support to individual behavior, in this case control compliance. By understanding this theory, researchers can map the cognitive and social processes that underlie patient compliance behavior in chronic disease management. This study adopts a framework that social and personal interventions can create positive changes in health behavior (Bandura, 1997).

Social Support

Social support is defined as an individual's perception of the presence of attention, appreciation, and real assistance from the social environment such as family, friends, or medical personnel. This form of support can be emotional, informational, or instrumental support that functions to help individuals deal with stress and manage illness. In the context of chronic health, social support is an important factor in building motivation and improving the quality of life of patients. The presence of adequate support allows patients to feel that they are not alone in dealing with their health conditions (Shao et al., 2017).

Social cognitive theory explains that social support can be a source of external reinforcement that contributes to increasing a person's self-efficacy. When individuals receive consistent social support, they will feel more confident in facing challenges, including undergoing routine checks on their illness. This support affects the patient's belief that they are able to undergo the treatment process and health control well. Therefore, social support is an important variable that can have an indirect impact on patient compliance through increased self-efficacy.

Research from (Dural & Aktur, 2023) shows that family support has a significant positive correlation with compliance in controlling hypertension patients in the health center area. Another study by (Karimy et al., 2018) found that type 2 diabetes mellitus patients who received high social support showed better levels of compliance in carrying out routine health checks. Both studies reinforce the assumption that social support is not only complementary, but is an integral part of achieving optimal health outcomes. Therefore, this study places social support as an independent variable that has an influence on self-efficacy and control compliance.

Self-Efficacy

Self-efficacy is a person's belief in their ability to organize and carry out the actions needed to achieve certain goals. This concept includes an individual's perception of their ability to overcome obstacles, undergo treatment, and control their health independently. High self-efficacy acts as an internal force that drives individuals to act proactively towards their health conditions. In the context of chronic disease patients, self-efficacy is a determinant in daily decision-making regarding disease management.

Within the framework of social cognitive theory, self-efficacy acts as a personal factor that mediates the influence of the environment on behavior (Karimy et al., 2018). An individual's belief that they are able to manage their disease will emerge through experience, modeling from others, verbal support, and interpretation of the physiological conditions they experience. Strong self-efficacy strengthens an individual's commitment to carrying out routine care and control. Therefore, increasing self-efficacy can be an effective intervention strategy in improving patient compliance (Martos-Méndez, 2015).

Research by (Pierobon et al., 2023) shows that self-efficacy has a significant relationship with compliance control of diabetes mellitus patients in primary clinics. A similar study by (Dural & Aktur, 2023) concluded that patients with high self-efficacy are more disciplined in carrying out health control and following the advice of medical personnel. Both studies strengthen the role of self-efficacy as a major predictor of long-term health behavior. In this study, self-efficacy is not only positioned as a mediating variable, but also as an important indicator in the effectiveness of the Prolanis program.

Control Compliance

Control compliance is the patient's behavior in following recommendations or routine health control schedules according to the direction of medical personnel. This compliance includes attendance at periodic check-ups, following prescribed therapy, and maintaining communication with health workers. In the management of chronic diseases such as diabetes and hypertension, control

compliance is an important indicator in assessing the success of treatment. Lack of compliance can lead to an increased risk of complications and decreased quality of life (Barofsky, 1978).

Within the framework of social cognitive theory, control compliance is a manifestation of personal beliefs and environmental support obtained by individuals. High self-efficacy and strong social support will increase the likelihood of individuals to comply with control and treatment schedules. This compliance behavior is not only influenced by medical instructions, but also by psychological and social factors. Therefore, this variable is used as a dependent variable in the study to measure the final results of the patient's social and psychological interactions. Research from (Amanda & Marsasi, 2024) shows that self-efficacy and social support contribute significantly to compliance with control in hypertensive patients. A study by (Alston, 2021) also found that diabetic patients who received guidance and support from their families and felt confident were more regular in carrying out health controls. These two studies provide evidence that control compliance cannot be separated from the role of social and psychological interventions. This is an empirical basis for this study to test the relationship between the three variables more comprehensively.

RESEARCH METHODS

The type of research used is quantitative with a correlational approach to test the relationship between social support, self-efficacy, and control compliance (Hair et al., 2014). This study is explanatory because it aims to explain the influence between the variables studied empirically. The research design uses a cross-sectional survey to obtain data from respondents at a certain time. This approach was chosen to identify the relationship and patterns of influence between these variables based on the perceptions and experiences of patients who participated in the Prolanis program.

The location of the study was at the Pratama Clinic of Muhammadiyah University of Purwokerto Dukuhwaluh which is one of the FKTP implementing Prolanis. This clinic is a relevant location because it has been running the Prolanis program routinely since 2018. All Prolanis patient management activities, including routine check-ups and health education, are carried out here. Therefore, the available population reflects the characteristics of chronic disease patients who are integrated into the primary care system, especially diabetes mellitus and hypertension.

The population in this study were all Prolanis participants who were actively suffering from diabetes and/or hypertension at the Pratama Clinic of Muhammadiyah University of Purwokerto Dukuhwaluh. The population was 150 patients who were recorded as participating in the Prolanis program in one month. This population has undergone various activities such as health education, Prolanis gymnastics, and routine check-ups. The focus of the study was directed at patients who actively participated in these activities so that the data obtained reflected real involvement in the chronic disease management program.

The sampling technique used the simple random sampling method with certain inclusion criteria. The inclusion criteria include: (a) registered as a Prolanis participant for at least six months, (b) diagnosed with hypertension and/or diabetes mellitus, (c) able to read and write or have a companion to help, and (d) willing to be a respondent by signing an informed consent. The exclusion criteria include patients who do not fill out the questionnaire completely and patients with severe complications. Samples that meet the criteria will be used as the main respondents in data collection. The data analysis technique in this study used Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the help of SmartPLS software. SEM-PLS was chosen because it is suitable for testing theoretical models involving latent variables with multiple indicators and is suitable for small to medium sample sizes (Fornell & Larcker, 1981). The analysis was carried out in two stages, namely testing the measurement model (outer model) to evaluate the validity and reliability of the instrument, and testing the structural model (inner model) to determine the relationship between variables and mediation tests. This method allows researchers to simultaneously evaluate the direct and indirect effects between social support, self-efficacy, and control compliance.

RESULTS AND DISCUSSION

Validity testing in Structural Equation Modeling analysis based on Partial Least Squares (SEM-PLS) aims to measure the extent to which indicators are able to represent the construct being measured (Hair et al., 2014). One of the criteria used to assess convergent validity is the outer loading value of each indicator against its construct. In this context, an indicator is said to be valid if its loading factor value is greater than 0.7, which indicates that more than 50% of the indicator's variance is explained by the measured latent construct. Values above 0.7 reflect the indicator's strong and consistent contribution in explaining latent variables, as well as strengthening the reliability and validity of the model as a whole. Thus, when all indicators in the model have loading values above 0.7, it can be concluded that the construct in the model has good convergent validity.

Table 1. Loading Factor

Indicator	Control Compliance	Self-Efficacy	Social Support
CC1	0,890		
CC2	0,923		
SE1		0,806	
SE2		0,880	
SE3		0,839	
SE4		0,821	
SE5		0,774	
SE6		0,836	
SS2			0,857
SS3			0,914
SS4			0,925
SS5			0,793

Source: Data processing results, 2025

Based on the results of the convergent validity test indicated by the loading factor value of each indicator against its variable, all indicators have met the validity criteria because they have values above 0.70. For the Control Compliance variable, indicators CC1 and CC2 each have loading values of 0.890 and 0.923, which indicate very strong validity. In the Self-Efficacy variable, six indicators (SE1–SE6) show loading values between 0.774 and 0.880, which indicates that all indicators are valid in measuring the self-efficacy construct. Meanwhile, the Social Support variable consists of four indicators (SS2–SS5) with loading values ranging from 0.793 to 0.925, which also reflects high convergent validity. These results indicate that all indicators in the model have been tested convergently valid and are suitable for use in measuring the research construct.

The Construct Reliability and Validity test in SEM-PLS aims to assess the extent to which the constructs in the research model show internal consistency and convergent validity. There are several indicators used in this test, namely Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE). Cronbach's Alpha and Composite Reliability are used to measure construct reliability, where the recommended value is at least 0.7. Meanwhile, the AVE value is used to measure convergent validity, with a minimum threshold of 0.5. If all indicator values meet the criteria, then the construct is considered reliable and valid, so it is suitable for use in the structural model.

Table 2. Construct Reliability and Validity

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Control Compliance	0,785	0,801	0,902	0,822
Self-Efficacy	0,907	0,912	0,928	0,684

Social Support	0,895	0,896	0,928	0,764
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Source: Data processing results, 2025

Based on the results of reliability and construct validity testing, all variables in this study showed values that met the criteria. The Cronbach's Alpha value for Control Compliance was 0.785, Self-Efficacy was 0.907, and Social Support was 0.895. All values are above the minimum threshold of 0.70, indicating that the instrument used is reliable. The rho_A and Composite Reliability (CR) values of the three variables also exceeded 0.70, with CR reaching up to 0.928 for the Self-Efficacy and Social Support variables, and 0.902 for Control Compliance. In addition, the Average Variance Extracted (AVE) value also exceeded the minimum limit of 0.50, namely 0.822 for Control Compliance, 0.684 for Self-Efficacy, and 0.764 for Social Support, so it can be concluded that the constructs used have good convergent validity.

The Discriminant Validity test in SEM-PLS aims to ensure that each construct in the model actually measures different concepts from each other. One of the commonly used methods is the Fornell-Larcker Criterion, which compares the square root of the Average Variance Extracted (AVE) value of each construct with the correlation between other constructs. Discriminant validity is declared fulfilled if the square root value of AVE (shown on the diagonal of the table) is higher than the correlation between constructs (values outside the diagonal). This indicates that the construct is more highly correlated with its own indicators compared to other constructs, thus confirming that each construct is unique and does not overlap with other constructs in the model.

Table 3. Discriminant Validity

Variable	Control Compliance	Self-Efficacy	Social Support
Control Compliance	0,907		
Self-Efficacy	0,666	0,827	
Social Support	0,785	0,834	0,874

Source: Data processing results, 2025

The results of the discriminant validity analysis show that the AVE square root value (shown in the diagonal) is higher compared to the correlation between other constructs in the same column. For example, the value of Control Compliance is 0.907, higher than its correlation with Self-Efficacy (0.666) and Social Support (0.785). Likewise, Self-Efficacy (0.827) and Social Support (0.874) have higher values compared to their correlations with other constructs. These results indicate that each construct in this study has good discriminant validity, which means that the construct is able to distinguish itself appropriately from other constructs.

The F-Square test in the SEM-PLS approach is used to measure the magnitude of the exogenous influence on the endogenous by looking at how much a variable contributes to increasing the R-Square value of the endogenous construct. The F-Square value provides an indication of whether a construct has a small (≥ 0.02), medium (≥ 0.15), or large (≥ 0.35) effect on other constructs in the structural model. Thus, this test is important to evaluate the predictive power of the relationship between variables in the research model.

Table 4. F-Square

Variable	Control Compliance	Self-Efficacy	Social Support
Control Compliance			
Self-Efficacy	0,001		

Social Support	0,449	2,277
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Source: Data processing results, 2025

The results of the f-square test show that the Self-Efficacy variable has a value of 0.001 on Control Compliance, which indicates that its influence on the dependent variable is very small and falls into the weak category, according to the interpretation (Cohen & Kietzmann, 2014) which states that an f-square value <0.02 is categorized as small. Meanwhile, the Social Support variable shows an f-square value of 0.449 on Control Compliance, which is in the strong category, because it exceeds the limit of 0.35. This indicates that social support has a major contribution in explaining variations in control compliance in Prolanis patients. On the other hand, the Social Support variable on Self-Efficacy produces an f-square value of 2.277, which is very large and uncommon in social research practices, so it needs to be examined further, whether this is due to a very strong construct relationship or the presence of multicollinearity between indicators that have not been fully controlled. Overall, the f-square results strengthen the finding that Social Support has a significant influence on the other two variables, especially in increasing patient control compliance and self-efficacy.

The R-Square test in Structural Equation Modeling Partial Least Squares (SEM-PLS) is used to measure the magnitude of the ability of the independent variables to explain the dependent variable. A high R-Square value indicates that the model has good predictive power. In general, an R-Square value of 0.25 is considered weak, 0.50 moderate, and 0.75 strong. While R-Square Adjusted takes into account the number of indicators and variables in the model, thus providing a more conservative measure of the predictive power of the model.

Table 5. R-Square

Variable	R Square	R Square Adjusted
Control Compliance	0,616	0,611
Self-Efficacy	0,695	0,693

Source: Data processing results, 2025

The results of the determination coefficient (R^2) test show that the Self-Efficacy variable is able to explain 69.5% of the variance of its construct, with an Adjusted R Square of 0.693. Meanwhile, Control Compliance is explained by 61.6% by the constructs that influence it, with an Adjusted R Square value of 0.611. This R^2 value is included in the strong category because it is above 0.60, which indicates that the structural model built is quite good at explaining the relationship between the variables studied in this study.

Hypothesis testing in Structural Equation Modeling Partial Least Squares (SEM-PLS) is carried out to test the influence between latent variables in the research model. This process involves analyzing the path coefficient, t-statistic, and p-value values to determine whether the relationship between variables is statistically significant. A t-statistic value above 1.96 (at a significance level of 5%) indicates that the hypothesis is accepted, meaning that there is a significant influence between the independent variables on the dependent variable. In addition, the direction of the coefficient (positive or negative) indicates the type of relationship that occurs. This hypothesis test is crucial in empirically proving the causal relationship that has been formulated in the conceptual framework of the study. The validity of the results of this test provides a strong basis for drawing conclusions about the influences tested in the SEM-PLS model.

Table 6. Hypothesis Test

Hypothesis	Standard Deviation (STDEV)	T Statistics ($ O/STDEV $)	P Values
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Social Support to Control Compliance	0,102	7,338	0,000
Social Support to Self-Efficacy	0,034	24,572	0,000
Self-Efficacy to Control Compliance	0,115	0,346	0,730
Self-Efficacy moderat Social Support to Control Compliance	0,098	0,341	0,733

Source: Data processing results, 2025

DISCUSSION

Social Support to Control Compliance

The results of the first hypothesis test show that the effect of Social Support on Control Compliance is statistically significant, with a T Statistics value of 7.338 (>1.96) and P Values of 0.000 (<0.05). This confirms that social support has a positive and significant effect on patient control compliance. This means that the higher the social support received by patients, the higher their level of compliance in following health control procedures.

Theoretically, these results are in line with the Social Cognitive theory which states that the social environment plays an important role in shaping individual behavior, including in terms of compliance with health rules or recommendations. Social support that includes emotional encouragement, practical assistance, and verbal reinforcement can increase patients' sense of responsibility and motivation in carrying out routine controls on their health conditions.

This phenomenon is also relevant in the context of Prolanis patients, where the involvement of family, friends, and health workers greatly determines the extent to which patients are willing and able to comply with the health control schedule. Social support helps reduce the psychological and practical barriers that patients may face, thus playing an important role in creating sustainable health services and improving the quality of life of chronic patients.

Social Support to Self-Efficacy

The statistical test for the second hypothesis showed very significant results, with a T Statistics value of 24.572 and P Values of 0.000. This shows that social support has a strong and significant influence on patient self-efficacy. This means that the greater the social support obtained, the higher the individual's belief in their ability to manage health conditions independently.

In Bandura's theoretical framework on Self-Efficacy, social support is one of the main sources in the formation of self-efficacy through vicarious experiences (observations), social persuasion, and reduction of emotional stress. Support from the surrounding environment creates a sense of security, strengthens the sense of ability, and encourages individuals to continue to act proactively in facing health challenges.

This condition reflects the reality that often occurs in Prolanis patients, especially those who face chronic diseases such as diabetes or hypertension. When they feel less alone and get encouragement from those closest to them, they will be more confident in managing their diet, physical activity, and complying with treatment, all of which are important parts of long-term disease management.

Self-Efficacy to Control Compliance

The third hypothesis test shows that the effect of Self-Efficacy on Control Compliance is not statistically significant, with a T Statistics value of 0.346 and P Values of 0.730. This means that self-efficacy does not have a significant effect on control compliance in the context of this population.

This finding indicates that although patients feel confident in their abilities, this does not necessarily translate into real actions in the form of compliance with health control.

This result is contrary to the findings of a number of previous studies which stated that self-efficacy is an important predictor of health behavior compliance. However, this result can still be explained theoretically by considering that self-efficacy may have more impact on internal or motivational aspects, while compliance with control can be more influenced by external factors such as social pressure, accessibility of health services, or encouragement from medical personnel and family.

This phenomenon could illustrate the fact that in the Prolanis patient group, self-confidence is not always enough to encourage compliance, especially if it is not supported by a conducive environment. This emphasizes the importance of social and systemic interventions, not just individual approaches alone, in improving control compliance in patients with chronic diseases.

Self-Efficacy Moderates the Effect of Social Support on Control Compliance

The testing of the moderation hypothesis shows that Self-Efficacy does not play a significant role as a moderator in the relationship between Social Support and Control Compliance. The T Statistics value is only 0.341 with P Values of 0.733, far from the statistical significance limit. This means that individual self-confidence does not strengthen or weaken the effect of social support on patient control compliance.

Theoretically, self-efficacy moderation should occur if individuals with high levels of efficacy can more optimally utilize the social support received. However, in this study, no statistical evidence was found that self-confidence strengthens the already significant relationship between social support and control compliance. This may be due to the homogeneity of the level of self-efficacy in the sample or because patients are more dependent on external social support than internal motivation. This phenomenon reflects the condition that in the context of community health services such as Prolanis, the direct influence of the social environment on the patient's real actions is more dominant than the role of internal self-confidence. Therefore, a collective and community-based approach seems to be more effective than an individual approach in increasing control compliance for patients with chronic diseases.

CONCLUSION

Based on the results of statistical analysis of the relationship between social support, self-efficacy, and control compliance, it was found that social support has a significant effect on control compliance and self-efficacy. These results indicate that the greater the social support received by an individual, the higher the level of control compliance and the individual's confidence in managing their health condition. Meanwhile, self-efficacy did not show a significant effect on control compliance, as did its role as a moderating variable in the relationship between social support and control compliance.

This study has several limitations that need to be considered. First, the data were collected cross-sectionally, so they could not capture the dynamics of the relationship between variables over time. Second, the sample was limited to Prolanis participants with certain social and health characteristics, which may limit the generalization of the findings to other populations. In addition, the measurement of variables only used a quantitative approach without qualitative in-depth study, so it did not capture the more complex psychosocial nuances of the perception of social support and patient self-efficacy.

Recommendations for further research include the need for a longitudinal design so that the cause-and-effect relationship can be observed more strongly. Researchers are also advised to consider a mixed-method approach to gain a deeper understanding of the mechanisms of social and psychological influence. In addition, it is important to examine the role of other external factors, such as access to health services and health program policies, in influencing control adherence in patients with chronic diseases.

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