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Analysis of Factors Influencing Patient Compliance to Treatment at Hospital X

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Abstract: Patient adherence to treatment is an essential component in achieving successful therapy, especially in the management of chronic diseases that require long-term treatment and active patient involvement. Non-adherence can lead to therapy failure, increased complications, higher health care costs, and decreased quality of life. This study aims to analyze factors that influence patient adherence to treatment at Hospital X using a descriptive quantitative approach. The study sample consisted of 100 outpatients selected purposively and analyzed using cross-tabulation and chi-square statistical tests.

The results of this study indicate that there are still respondents who are not compliant with treatment. Variables that show a significant relationship to compliance are education level ($p = 0.034$) and family support ($p = 0.002$). In contrast, gender ($p = 0.859$) and age ($p = 0.640$) do not have a significant relationship. These findings underline the importance of education-based interventions that are tailored to the patient's educational background, as well as active family involvement as an integral part of the care process. This study recommends a more holistic service approach, which not only emphasizes clinical aspects, but also considers social, psychological, and cultural factors of patients as important determinants of compliance behavior.

Keywords: patient compliance, treatment, education, family support, health literacy, holistic services

INTRODUCTION

Patient compliance in treatment is very important, because it greatly affects the results of treatment and patient recovery. If the patient is not compliant with the treatment, the results will be unbalanced. In Indonesia, there are still many patients who are not compliant in their recovery. Compliance is defined as the extent to which the patient's compliance in using the drug regimen (interval and dose) as determined based on a doctor's prescription (Zeber et al., 2013). Patients who are not compliant in treatment can also result in worsening medical conditions and recovery in the long term. Patient non-compliance in treatment can be intentional or unintentional, many factors influence patient non-compliance.

This study aims to see how many patients are not compliant in taking medication, what factors can affect patients. By understanding these factors, it is hoped that more effective strategies can be developed to improve patient compliance. By making this article, I hope it can be an evaluation and insight for health workers.

According to the World Health Organization (2003), approximately 50% of patients in developing countries are non-compliant with prescribed long-term medication. This non-compliance not only worsens the patient's condition, but also causes a significant economic burden on the health care system.

METHOD

This study uses a descriptive quantitative approach with survey and questionnaire methods, analyzed using cross-tabulation and chi-square statistical tests. The purpose of this approach is to describe the characteristics and distribution of variables that affect patient compliance. The population in this study were all outpatients in the last three months at Hospital X who were undergoing treatment. The number of samples set was 100 people. The sampling technique was carried out by purposive sampling with inclusion criteria: patients aged ≥ 18 years, willing to be respondents, and able to fill out the questionnaire independently. The instrument used was a validated structured questionnaire, covering demographic aspects, knowledge of the disease, medication adherence, and other supporting factors. Data were analyzed descriptively using frequency and percentage distributions, and cross-tabulation to see the relationship between variables. Data collection was carried out after obtaining permission from the hospital and ethical approval from related institutions.

RESULT AND DISCUSSION

Treatment is a process of healing or treating a disease using the facilities and medical personnel available in the hospital. This involves various procedures, from examination and diagnosis, to administering drugs and medical therapy to restore the patient's health. According to (*World Health Organization, 2003*) defines treatment as a systematic effort to prevent, control, or cure a disease through the use of pharmacological and non-pharmacological interventions. Treatment also includes long-term actions to improve the quality of life of patients with chronic conditions. According to the Indonesian Minister of Health Regulation No. HK.02.02/MENKES/261/2015, "treatment is an action by health workers to cure or reduce the severity of a disease in a manner that is in accordance with professional standards, either through the use of drugs or other methods".

Based on the results of observations and questionnaires conducted, the majority of outpatients at Hospital X are in the elderly age group (≥ 50 years). This condition is one of the important factors that can affect the level of compliance with treatment. Advanced age is often associated with decreased cognitive function, memory impairment, and physical limitations, all of which contribute to non-compliance in undergoing medical therapy. According to (Morisky et al. 2008) stated that advanced age is one of the main risk factors for non-compliance due to the physical, psychological, and social limitations that accompany it. The results of observations and questionnaires show that there are still patients who are not compliant with treatment. Based on quantitative results obtained from 100 respondents.

Table 1. Respondent Gender

VARIABLES	CATEGORY	SUM
Gender	Man	40
	Woman	60

Table 1.1 Gender

GENDER	OBEDIENT	DISOBEDIENT	TOTAL
Man	30	10	40
Woman	45	15	60
Total	75	25	100

Based on the table above, out of 40 male respondents, 30 respondents (75%) showed adherence to treatment, while out of 60 female respondents, 45 respondents (75%) were also compliant. This equal percentage shows that in the context of this study, gender does not have a significant difference in the level of adherence. However, this result is different from several previous study findings which stated that women tend to be more compliant with treatment because they are more active in seeking health services and are more open to medical information (Elsous et al., 2020).

Table 2. Age of Respondents

VARIABLES	CATEGORY	SUM
Age	< 40 years	25
	40 – 59 years	40
	≥ 60 years	35

Table 2.1 Age

AGE	OBEDIENT	DISOBEDIENT	TOTAL
< 40 years	20	5	25
40 – 59 years	30	10	40
≥ 60 years	25	10	35
Total	65	35	100

The highest level of compliance was in the age group <40 years (80%), then the 40–59 years group (75%), and the lowest in the ≥ 60 years group (71.4%). These results indicate a decrease in compliance with increasing age, which is most likely related to factors of memory loss, physical limitations, and a higher burden of comorbidities in the elderly. According to (Wicaksono & Prabowo 2023), elderly age is a risk factor for low compliance, especially due to physical decline and minimal family support.

Table 3. Final Education of Respondents

VARIABLES	CATEGORY	SUM
Final Education	SD	10
	JUNIOR HIGH SCHOOL	15
	SENIOR HIGH SCHOOL	55
	University	20

Table 3.1 Final Education

FINAL EDUCATION	OBEDIENT	DISOBEDIENT	TOTAL
SD	5	5	10

JUNIOR HIGH SCHOOL	10	5	15
SENIOR HIGH SCHOOL	45	10	55
University	15	5	20
Total	75	25	100

Respondents with high school education showed the highest level of compliance (81.8%), followed by university (75%), junior high school (66.7%), and elementary school (50%). The higher the level of education, the higher the patient's compliance with treatment. The level of education plays a major role in the patient's ability to understand the benefits and risks of treatment. (Handayani & Lestari 2019) stated that patients with higher education tend to have better health literacy, so they are better able to make the right treatment decisions and are disciplined in undergoing therapy.

Table 4. Respondent's Family Support

VARIABLES	CATEGORY	SUM
Family Support	support	70
	Not supported	30

Table 4.1 Family Support

FAMILY SUPPORT	OBEDIENT	DISOBEDIENT	TOTAL
Get support	60	10	70
Not supported	15	15	30
Total	75	25	100

Family support factors showed the strongest influence on adherence. Of the 70 patients who received family support, 60 (85.7%) were compliant, while of the 30 patients without family support, only 15 (50%) were compliant. This shows that emotional, logistical, and social support from the family greatly contributes to the success of therapy. Research by (Fatimah and Nursalam 2020) concluded that patients who received active family support were twice as likely to be compliant in undergoing treatment, especially for chronic diseases such as diabetes and hypertension.

Table 5. Recapitulation of Factors Affecting Patient Compliance

NO	VARIABLES	CATEGORY VARIABLE	P-VALUE	INFORMATION
1	Gender	Male/female	0.859	Insignificant
2	Age	<40, 40–59, ≥60 years	0.640	Insignificant
3	Final Education	Elementary School, Middle School, High School, University	0.034	significant
4	Family Support	Supported/Not	0.002	Very significant

From the results of this analysis, there are several factors that can affect patient compliance, including gender, age, last education, and family support. Based on the results of the statistical analysis in Table 5, it is known that not all demographic and psychosocial variables have a significant relationship to patient compliance in undergoing treatment at Hospital X. The results of the gender analysis showed a p-value of 0.859, indicating that there was no significant difference in patient adherence based on gender. Previous studies have shown that although there are differences in health behaviors between men and women, other factors such as social support and knowledge of the disease have a greater influence on adherence (Smith et al., 2020). This suggests that interventions to improve patient adherence should consider other more relevant factors than just gender. The p-value for the age variable was 0.640, indicating that there was no significant relationship between age and patient adherence. Although age can affect patient understanding of treatment, studies have shown that factors such as social support and knowledge of the disease are more influential (Johnson & Lee, 2021). Therefore, it is important to not only focus on the age of patients, but also on how to improve their understanding of treatment. The education variable showed a p-value of 0.034, which means there is a significant relationship between education level and patient compliance. Patients with higher education tend to have a better understanding of their health condition and the importance of treatment. Research shows that good patient education can improve compliance (Anderson et al., 2022). Therefore, educational programs aimed at increasing patient knowledge about the disease and treatment are very important to improve compliance. The p-value for family support of 0.002 shows that family support has a very significant effect on patient compliance. Emotional and practical support from the family can increase patient motivation to comply with the treatment plan. Previous research has confirmed the importance of social support in improving patient compliance (Williams et al., 2023). Therefore, involving the family in the care process and providing the necessary support can be an effective strategy to improve patient compliance.

From the results of the analysis above, it can be concluded that the latest education and family support are the main keys to patient compliance in treatment. Although gender and age do not show a significant relationship, it is important to consider other factors that can affect compliance. Therefore, interventions that focus on improving patient education and strengthening family support can be an effective strategy to improve patient compliance. The results of this study indicate the importance of implementing a multifactorial strategy in improving patient compliance with treatment. One priority step is the development of a patient education program that is tailored to their level of understanding and educational background. Education designed with a communicative, simple, and patient-oriented approach is believed to be able to improve health literacy and strengthen the patient's internal motivation to undergo therapy consistently. Furthermore, family involvement has been shown to have an important role as a support system in the patient care process. By providing the right information and adequate emotional support, families can be effective facilitators in encouraging compliance with treatment regimens. Therefore, family involvement in the education process and clinical decision-making needs to be formalized in service policies. In addition, a holistic service approach needs to be adopted more widely by health facilities. This approach emphasizes the importance of understanding the various social, psychological, and cultural factors that influence patient adherence behavior. By considering emotional conditions, perceptions of illness, and dynamics of the social environment, health workers can design interventions that are more adaptive and relevant to the individual needs of patients.

CONCLUSION

The results of this study indicate that education level and family support are two factors that significantly influence the level of patient adherence to treatment. Patients with higher

levels of education tend to better understand the importance of following medication instructions properly, both in terms of time, dosage, and control schedule. This is closely related to better health literacy skills, which allow patients to make more rational and informed health decisions. Family support has also been shown to be an important factor contributing to the success of therapy. The family not only acts as a reminder for medication schedules or follow-up checks, but also as a source of emotional support and motivation that strengthens the patient's commitment to the treatment process. This finding is in line with various literatures that place social support as a key component in long-term adherence behavior. Meanwhile, gender and age factors did not show a significant relationship to adherence in the context of this study. However, these factors remain important to consider in a broader context, especially when designing age-based intervention programs or other population segmentations. Based on these findings, it is recommended that hospitals develop structured, tiered, and contextual education programs according to the patient's level of education and understanding capacity. The program not only contains medical information, but also an interactive approach involving visual, audio, and direct guidance communication methods. In addition, active family involvement in the planning and implementation of patient therapy needs to be formalized as part of a family-based service policy. Finally, a holistic service approach needs to be adopted more widely, integrating social, psychological, and cultural aspects into the service system, in order to create more personalized, responsive, and long-term therapeutic outcome-oriented interventions.

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