

The Impact of Counseling on Patient Compliance with Antihypertensive Medication: A Literature Review

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ABSTRACT

Hypertension is one of the main risk factors for heart problems. Apart from causing heart failure, hypertension can result in kidney failure and cerebrovascular disease. Patient behavior with high sodium and fat intake, unhealthy lifestyle and low compliance with taking antihypertensive medication can result in the failure to achieve therapeutic goals resulting in a decrease in the quality of life of hypertensive patients. Therefore, a method is needed to improve these things, one of which is the counseling method. The counseling method used is medication-taking counseling. The results of this research use the journal review method by analyzing 6 national journals and inter national journals. The results of the study explain that non-adherence to antihypertensive treatment not only has a major impact on blood pressure control, but also on cardiovascular morbidity and mortality. Therefore, clinical pharmacy services provided by pharmacists in pharmacies in the form of counseling are very important to achieve success. Various studies show that counseling provided by pharmacists and PILS (Patient Information Leaflets) has an influence on the level of compliance in taking anti-hypertension medication.

Keywords: counseling; hypertension; medication adherence

Introduction

Millions of people around the world suffer from hypertension or high blood pressure, a major health problem. Hypertension is a major risk factor for various cardiovascular diseases, such as heart disease and stroke, kidney disease and its prevalence continues to increase. The prevalence of hypertension is increasing globally due to population aging and increased exposure to lifestyle risk factors including unhealthy diets (i.e. intakes that are high in sodium and low in potassium) and lack of physical activity (Mills et al., 2016). In the last twenty years, the prevalence of hypertension in high-income countries has decreased slightly, but in low- and middle-income countries it has increased rapidly (B. Zhou et al., 2017).

Although the literature provides a lot of information about the treatment of hypertension, it is necessary to carry out a thorough evaluation of how effective the instructions given by pharmacists in pharmacies are to achieve the therapeutic goals of hypertensive patients (Beran et al., 2018). This review provides a systematic review of existing articles, evaluation of strategies that have been used, and building effective educational programs in the pharmacy setting. It is hoped that this review will provide in-depth insight and support the development of intervention methods that can improve the outcomes of hypertensive patients at the community level. Another aim is to understand the role of pharmacists and the relevance of education in hypertension management (Mills et al., 2024).

Health services in pharmacies have undergone major changes in recent years. Pharmacists now not only sell medicines but also help patients and inform them about the patient's health. Being in a pharmacy, pharmacists have the opportunity to get closer to patients, help them talk

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openly, and share information that can help control hypertension well (Nusair & Guirguis, 2018). Additionally, the use of health apps and online consultation services are some examples of ways pharmacists educate patients. Therefore, it is important to study not only how effective conventional educational methods are, but also how far technological advances can improve the quality of educational services in pharmacies (Alqurshi, 2020).

Increasing attention is being focused on the role of pharmacists in pharmacies as healthcare providers who can educate patients in an effort to optimize hypertension treatment (Reeves et al., 2021). Effective education can improve patients' understanding of their condition, improve adherence to treatment, and, ultimately, achieve better therapeutic targets (Feldman et al., 2017). Risk factors for hypertension can be prevented and improved blood pressure management can be achieved by reducing risk factors, which is an important tool. A diet high in salt, excess body fat, lack of exercise, inadequate fruit and vegetable consumption, and excessive alcohol use, smoking all increase the risk (Meher et al., 2023).

Hypertensive patients who were known to forget to take their medication had significantly higher rates of cardiovascular events or death compared with patients who never forgot to take their medication. There is a need to increase support for patients and find patient confidence in treatment. Risk factors for non-adherence are related to the duration of the disease, the number of side-effects received, and beliefs about the need for weak medications. Two other important factors are the cost of treatment and inadequate knowledge about anti-hypertension drugs (Mebrahtu et al., 2021).

Brief counseling (*brief counseling*) runs in a directed manner on what steps will be taken to obtain the right solution. A practitioner develops a partnership with the patient, negotiating and reaching an agreement regarding behavior change. Meanwhile, in traditional counseling, practitioners only regulate health service behavior and hope that patients follow the instructions given (M. Zhou et al., 2019).

Research methods

This research uses a *literature review method* or literature study method. The search for this article was carried out through the *Google Scholar*, *Mendeley database* with the selected keywords namely "pharmacist, counseling, hypertension", the articles used were those that could be accessed in full text, National and International from 2015 to 2024, 6 articles were obtained that met the inclusion criteria and exclusion with full text with this type of article is experimental.

Results and Discussion

A. Results

Table 1. Research result

Article Title	Method	Research result	Writer
The Influence of Pharmacist Counseling on Compliance and Quality of Life of Hypertension Patients in the Refer-Back Program at the Pharmacy	This research used a <i>pretest-posttest control group experimental design</i> . The number of samples used was 23 respondents for the control group and 22 respondents for the counseling group. Comparative analysis of the difference between <i>pretest</i> and	The research results showed that after counseling by pharmacists, there was a significant increase in patient compliance and quality of life scores in the physical health domain and environmental domain, each increasing by 1.1; 8.5; and 4.5. The	Nur Aini Budiyanti, Chairun Wiedyaningsih, Tri Murti Andayani (2022)

	<p><i>posttest</i> counseling scores on compliance and quality of life using the <i>Wilcoxon nonparametric test</i> .</p>	<p>patient's quality of life in the psychological and social domains did not experience a significant increase in scores ($p>0.05$). Counseling provided by pharmacists improves compliance and quality of life in the physical and environmental health domains, but does not improve the patient's quality of life in the psychological and social domains.</p>	
<p>Pharmacist Intervention Supports Improvement Treatment Behavior of Hypertension Sufferers</p>	<p>This research design is quasi-experimental with a <i>Randomized Pre-test – Post-test Control Group Design</i> . Data collection was carried out prospectively from outpatients on subjects who met the inclusion criteria, namely 68 hypertensive patients. Data collection was carried out by conducting interviews and filling out medication behavior questionnaires.</p>	<p>Providing these two interventions by a pharmacist can positively increase the treatment behavior level score of the treatment group significantly ($p<0.05$).</p>	<p>Herda Ariyani, Akrom, Riza Alfian (2024)</p>
<p>The Effect of Counseling on Salt Consumption in Hypertension Patients in Dr. Hospital H. Moch Ansari Saleh Banjarmasin</p>	<p>The research carried out was quasi-experimental research <i>a two group pretest and posttest</i> research design with data collection patients prospectively. Subjects who met the inclusion criteria were 68 patients in two groups randomly. Data were analyzed using the Kolmogorov-Smirnov test to describe the distribution of patients, the Wilcoxon test</p>	<p>The research results show that giving <i>brief counseling- 5A</i> can change the behavior of treatment group patients towards Sodium intake in treatment group patients changed significantly</p>	<p>Saftia Aryzki, Riza Alfian (2016)</p>
<p>Home Care Nursing for Families with Problems Hypertension Health</p>	<p><i>The research method</i> that will be used is a case study using a systematic family</p>	<p><i>results</i> show that in preparing family nursing care plans, the author gained real</p>	<p>A. Syamsinar Asmi, Hermin Husaeni (2019)</p>

	nursing process approach to obtain complete data using the method; interviews, observations.	experience regarding the application of care directly to assisted families.	
The Relationship between the Role of Pharmacy Personnel and Family Support with the Level of Compliance with Taking Antihypertensive Medicine at Pharmacy "X" Denpasar City	<i>Cross sectional survey design</i>	The results obtained in this study are that there is a significant and strong relationship between family support and adherence to taking antihypertensive medication in the domain of emotional support and appreciation (p=0.000; r=0.75) and instrumental support (p=0.003; r=0, 52). The role of pharmaceutical personnel on compliance has a strong and significant influence (p= 0.002; r=0.64).	Ni Putu Wintariani (2022)
Cost-Effectiveness Analysis of a Pharmacist-Led Medication Therapy Management Program: Hypertension Management	We built a semi-Markov model to evaluate the clinical and economic consequences of an MTM clinic compared with no MTM clinic, from the payer perspective. The model was populated with data from a recently published controlled observational study investigating the effectiveness of an MTM clinic. Methodology was guided using recommendations from the Second Panel on Cost-Effectiveness in Health and Medicine,	Compared with no MTM clinic, the MTM clinic was cost-effective with an incremental cost-effectiveness ratio of \$38 798 per quality-adjusted life year (QALY) gained. The incremental net monetary benefit was \$993 294 considering a willingness-to-pay threshold of \$100 000 per QALY. Health-benefit benchmarks at \$100 000 per QALY and \$150 000 per QALY translates to a 95% and 170% increase from current reimbursement rates for MTM services.	Bob G. Schultz (2021)

B. Discussion

In treating patients with high blood pressure, the key to success lies in adherence to therapy. It is very important for hypertensive patients to adhere to using antihypertensive drugs. If the patient adheres to the medication taking schedule as recommended, then blood pressure can be controlled well. This ensures the success of treatment in the short and long term and improves the patient's quality of life (Idacahyati, 2018). Changes in treatment may affect patient compliance. Patients who experience a change in therapy will certainly feel discomfort due to the side effects that occur. This feeling of discomfort can affect patient compliance in carrying out treatment and has the potential to worsen the disease condition (Shanthanna et al., 2020).

Health workers or pharmacists can use different methods to increase patient compliance. One of them is counseling. Counseling is a form of service provided to patients, generally by pharmacists in pharmacy clinics (Harlianti et al., 2016). Consultation with a pharmacist has an important impact on the suitability of treatment for patients suffering from hypertension. Counseling has a significant effect on improving qualifications compared to patients who only receive treatment or without guidance because patients can be given direction or training in pharmaceutical counseling, so the pharmacist's role in counseling can also influence the effectiveness of therapy (Presetiawati et al., 2017). Counseling is a pharmacy facility where patients are offered services and assistance in completing a course of therapy. Pharmacist counseling can also evaluate the patient's understanding of their health condition and the medication given, as well as increase patient compliance while undergoing therapy (Kooij et al., 2016; Messerli et al., 2016). The purpose of the consultation is to provide an explanation to the patient regarding their current health condition or the therapy that will be carried out in the short or long term. Another aim is to increase patient compliance in undergoing treatment (Menkes, 2016). Apart from that, pharmacists also explain the drugs used and non-drug treatments. Compliance is a measure of the patient's indication to the pharmacist that the patient is following the procedures and rules for taking medication.

Pharmacist advice can have an effect on lowering blood pressure. Based on a study Huraini (2014) there is a significant relationship between stress and high blood pressure, where the body reacts to stress by releasing the hormone adrenaline which can trigger an increase in heart rate resulting in an increase in blood pressure. Unhealthy eating habits, such as eating fatty foods, can also contribute to increased blood pressure. Regular consumption of foods with excess fat causes blockage of blood vessels, which can further lead to various cardiovascular diseases. Apart from fatty foods, foods high in salt can increase blood pressure and trigger fluid retention which can ultimately damage body organs such as the kidneys, arteries, brain and heart (Adriaansz et al., 2016).

The pharmacist's role can be carried out by strengthening good interactions and relationships with patients. This action will help increase the patient's understanding of the disease and treatment being undertaken, so that the level of patient compliance can be increased (Setiani et al., 2022). Efforts that can be made include counseling patients regarding the therapy given, both pharmacological and non-pharmacological. Apart from that, being able to provide education to patients about the disease they are suffering from and its treatment is also important. Then, create a therapy plan that includes a diet according to the patient's physical condition, activities and work, as well as monitoring medication consumption regularly.

Conclusion

The results of this review explain that counseling carried out by pharmacists in pharmacies can increase compliance in the physical and environmental health domains, especially for hypertensive patients to always comply with taking antihypertensive medication regularly and according to recommendations directed by the pharmacist and increase knowledge of healthy lifestyles so as to produce outcomes. which are expected.

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