

Factors Affecting the Non-adherence to Antihypertensive Medication Treatment Among Adult Patients in Selected Private Hospitals in Southern Palawan: Basis for Strategic Compliance Program

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Abstract

Hypertension remains a significant public health concern, particularly in underserved regions where access to continuous care and adherence to medication regimens are challenging. This study aimed to determine the factors influencing non-adherence to antihypertensive medication among adult patients attending outpatient departments of three primary-level private hospitals in southern Palawan, Philippines. It examined five major domains based on the World Health Organization's (WHO) framework: (a) social/economic, (b) patient-related, (c) therapy-related, (d) condition-related, and (e) healthcare system-related factors. A descriptive-correlational research design was employed, involving 151 purposively selected hypertensive patients from Rio Tuba Nickel Foundation Hospital, Leoncio General Hospital, and Sagrado Hospital. Data were gathered using a researcher-developed questionnaire consisting of demographic information and a 50-item Likert scale measuring factors contributing to nonadherence. Descriptive statistics summarized patient profiles and adherence levels, while Pearson Product-Moment Correlation and Chi-square tests evaluated associations between variables at a 0.05 significance level. The majority of non-adherent patients were aged 61 years and older (25.8%) and predominantly male (55%). A significant portion held at least a bachelor's degree (39.7%), were married (77.5%), employed (50.3%), and earned between PHP 10k-20k monthly (27.8%). Regarding adherence, 44.37% exhibited moderate non-adherence, while 26.49% were highly or very non-adherent. The average non-adherence rating was 3.28, indicating a general trend of moderate non-adherence. Social/economic and patient-related factors had the strongest correlations with non-adherence. Statistically significant relationships were found between non-adherence levels and age, sex, employment status, and income. No significant associations were observed for educational attainment and civil status. It is concluded from the findings that non-adherence to antihypertensive medication in southern Palawan is moderately prevalent and strongly influenced by socioeconomic and patient-related barriers. Demographic factors such as age, sex, employment, and income significantly affect adherence behaviors. The findings highlight the need for context-specific interventions that address financial constraints, improve patient education, and enhance healthcare system support, particularly through



nurse- and physician-led programs. Moreover, policymakers should prioritize equitable access to medication and advocate for patient-centered care models tailored to local realities.

Keywords: Hypertension, Medication Non-Adherence, Socioeconomic Factors, Patient-related, Therapy-related, Condition-related, Healthcare system-related

CHAPTER I INTRODUCTION

This chapter presents the foundational elements of the study, outlining the background of the research, the statement of the problem, its significance, and the scope and limitations. It also provides a clear explanation of the essential concepts that support the investigation.

Background of the Study

Hypertension remains a major global health concern, contributing significantly to cardiovascular illnesses and increased mortality rates. It occurs when blood consistently exerts excessive pressure against the walls of the arteries, eventually causing damage and leading to serious health complications (American Heart Association, 2024). A critical factor in the poor control of hypertension is patients' failure to follow prescribed treatment plans. The World Health Organization (2023) reports that just over half of adults with elevated blood pressure are properly diagnosed, fewer than half receive appropriate treatment, and only about one in five manage to keep their condition under control.

High blood pressure remains the most significant modifiable contributor to heart disease. Worldwide, it affects an estimated 1.3 billion individuals and is responsible for approximately 10 million deaths each year (World Heart Federation, 2022). According to the World Health Organization (2023), around 1.28 billion adults between the ages of 30 and 79 are currently living with hypertension.

In 2022, high blood pressure was linked to nearly 686,000 deaths across the United States. Nearly half of all American adults—roughly 120 million people—are living with this condition. Yet among the estimated 27 million adults diagnosed with high blood pressure, only about one in four (22.5%) have it properly managed and under control (CDC, 2024).

In a country report by Sison et al. (2020), hypertension is a significant issue in the Philippines as it is responsible for more fatalities and impairments. Our nation's leading cause of death is stroke, brought on by high blood pressure. Lack of awareness, poor compliance, and insufficient blood pressure control are the causes of this. Recent data show that around 28% of the population is affected by hypertension, with men and women experiencing it at equal rates. About 9% of individuals with the condition are not aware they have it. Of those diagnosed, only 56% receive treatment, and just 57% of them adhere to their prescribed medication. Ultimately, only 20% manage to keep their blood pressure under control.

Data was collected through a census review of the logbook records of the three private hospitals of southern Palawan from January to August 2024. Rio Tuba Nickel Foundation Incorporated Hospital had an average of 412 outpatient cases per month; Leoncio General Hospital and Sagrado Hospital had 14 cases per month. All three private hospitals reported 4-5 cases per month of emergency cases, including strokes, hypertensive urgencies, and transient ischemic attacks, in the same year. These consistent numbers may signify a need for further investigation into medication non-adherence in hypertensive patients.



According to the World Health Organization, several interconnected elements contribute to medication nonadherence. These include social and economic circumstances, individual patient behaviors, aspects of the treatment itself, the nature of the illness, and the structure of the healthcare system. Because of its complexity, addressing nonadherence calls for a comprehensive, multifaceted approach (Aljofan et al., 2023).

This study was conducted at three selected private hospitals in Southern Palawan: 1.) Rio Tuba Nickel Foundation Incorporated Hospital in Rio Tuba, Bataraza; 2.) Sagrado Hospital in Poblacion, Brookes Point; and 3.) Leoncio General Hospital in Poblacion, Brookes Point. Leoncio General Hospital in Poblacion, Brookes Point. All these hospitals are Level 1 private healthcare facilities with a bed capacity of 30-50. They offer outpatient department services during office hours, emergency treatment, radiology services, a second-level laboratory facility, a pharmacy, cranial tomography, and ultrasound services.

The researcher encounters non-adherence to medication treatment daily as an emergency nurse among patients, friends, and relatives. The proponent aimed to explore several potential research gaps: 1.) As a nurse for five years in the far south of Palawan, the proponent surmises that there still a need for a more detailed investigation into less-explored barriers unique to rural settings like geographic isolation, transportation, and local healthcare resources, especially within underserved or minority populations. 2.) Personal experiences from relatives and close friends who are also non-adherent to medications in the long run; much research focuses on short-term non-adherence, but understanding patterns and reasons for long-term non-adherence is also essential. 3.) Investigating the effectiveness of nurse-led interventions and multidisciplinary approaches could highlight the value of a more hands-on approach in developing strategies. 4.) While much of the existing research highlights patient behavior, there is limited attention given to other critical influences like coexisting health conditions, treatment plans, and the role of healthcare systems. This reveals a gap, particularly in exploring how tailored community-based strategies or policy reforms can enhance adherence among underserved populations.

The following reasons have inspired the present study: Firstly, to determine the current degree of nonadherence status among patients regarding their antihypertensive medications. Secondly, to explain the relationship between the degree of non-adherence, its factors, and the profile of adult patients. Finally, to address the current problem of non-compliance with maintenance medications, the study intends to help create or develop a strategy for compliance. The significance of achieving these objectives is emphasized in the rationale for studying medication non-adherence, underscoring the need for a multimodal approach that considers the perspectives of patients, providers, technology, and systems.

Statement of the Problem

This investigation focused on uncovering the underlying causes of treatment non-adherence with antihypertensive medication among adult patients attending the outpatient departments at Rio Tuba Nickel Foundation Incorporated Hospital, Leoncio General Hospital, and Sagrado Hospital.

In particular, The research focused on exploring these key questions:

- 1. What are the respondents' sociodemographic characteristics in terms of:
- a. age,
- b. gender,
- c. educational attainment,
- d. marital status,
- e. employment status, and



- f. gross monthly income?
- 2. What is the level of non-adherence to antihypertensive medications of the respondents?
- 3. How do the factors affect the respondent's non-adherence as to:
- a. socioeconomic,
- b. patient-related
- c. therapy-related
- d. condition-related, and
- e. healthcare system?
- 4. What is the relationship between respondent's profiles and the degree of non-adherence?
- 5. Is there an association between the respondents' demographic characteristics and the influencing factors affecting patient's non-adherence to antihypertensive medication treatment?
- 6. What program of strategic compliance can be recommended from the findings?

Significance of the Study

The significance of this study lies in its potential to contribute valuable insights and enhance the existing body of knowledge within the relevant field. The following discussion underscores the importance of this research endeavor:

To the **Department of Health**, this project may serve as a small-scale test that can be used for largerscale assessments to enhance programs related to non-communicable diseases. Both national and local public health organizations may use the research findings to create prevention measures programs highlighting the identified problem or concern.

To **Private Hospitals of Southern Palawan**, the results can help the hospital enhance its current approach to encouraging hypertension patients to take their medications as prescribed. Moreover, the findings could provide useful information to guide future studies. Hospital management can develop effective strategies to enhance the quality of patient care services and care quality by knowing what factors contribute to non-adherence to antihypertensive medication. This research could help healthcare professionals recognize key factors—including socioeconomic, patient-specific, treatment-related, condition-related, and healthcare system influences—that contribute to patients not following their prescribed medication regimens. This could lower the number of patients who require medical attention immediately because of complications from chronic hypertension.

To **Healthcare Practitioners**, studying non-adherence to antihypertensive medication is crucial, as it informs interventions that improve patient outcomes, prevent complications, reduce healthcare costs, and enhance patient engagement in their care. It ultimately leads to more effective management of hypertension and contributes to patients' overall well-being.

To **Patients**, the result may significantly impact their ability to manage high blood pressure, thereby decreasing the risk of severe complications such as heart attacks, strokes, and kidney damage. Understanding why patients struggle with adherence helps healthcare providers offer tailored solutions, such as simplifying medication regimens or addressing side effects. Patients can better manage their conditions and live healthier, more active lives by increasing adherence. Addressing non-adherence also gives patients the confidence to take control of their health, which reduces the need for emergency rooms and hospital stays. Ultimately, this ensures improved long-term well-being and quality of life for individuals with hypertension.



To **readers**, this study may shed light on the significance of adhering to the prescribed drug therapy for hypertension, as well as the variables influencing a person's decision to take or comply with the medication. Readers may learn the significance of adhering to the chronic disease medication regimen and how to counteract non-adherence to drug therapy by analyzing the factors contributing to non-adherence to antihypertensive maintenance. This will lessen the possibility of serious consequences from medication non-adherence due to the chronic disease of hypertension.

For **Future investigators**, this study may provide foundational data to build upon and exploring other parameters in subsequent investigations. The information obtained from the data collection will additionally function as a resource for prospective future studies related to this study. Future researchers may build upon existing theories and practices by examining medication non-adherence, ultimately benefiting practice.

Scope and Delimitation of Study

Besides providing a relevant and practical approach to enhance adherence to antihypertensive treatment plans, the study's defined scope and limitations have allowed for a focused and manageable investigation that thoroughly explores the influencing factors affecting medication non-adherence among hypertensive patients attending the outpatient department of the chosen Level 1 Private hospitals in Southern Palawan.

The study is organized according to the research approach, key concepts, target population, geographic location, and the formulation of strategies. The individuals included in this investigation were 151 hypertensive patients who came to the outpatient clinics of the three (3) primary-level private hospitals in southern Palawan—Rio Tuba Nickel Foundation Incorporated Hospital, Leoncio General Hospital, and Sagrado Hospital. Patients who are 21 years of age or older have been clinically diagnosed with Hypertension I and II, whether under control or not, and are presently on an antihypertensive medication treatment regimen for at least three months; regular patients of the selected private hospitals for the past 2 months of hypertension-related consultations will be the target population. Participants were excluded if they were unable to read and write, were too sick to respond, had dementia, or were pregnant. Data collection occurred at the Outpatient Department in any designated private area within the previously mentioned healthcare settings. The questionnaire was distributed during the 2-month study period (1st semester of 2025). The study employed researcher-guided quantitative surveys combined with a correlational research design. It gathered information on patients' demographic profiles, the extent of their non-adherence, and the factors influencing this behavior have been collected through surveys.

The study's boundaries were classified according to the following criteria: time, institutional characteristics, external factors, and intervention creation. The factors to be studied will be limited to social/economic, patient-related, therapy-related, condition-related, and healthcare system-related factors, according to the World Health Organization. Even though the study looked at the factors that affect hypertension patients' non-adherence to their medications, it may not go into great detail. Three private hospitals were chosen, but the representation of general southern Palawan has been depicted in the study and not separately for each of the hospital settings. Finally, a strategy for developing a compliance program will be created to deal with the specific problems that Southern Palawan hypertensive patients have identified as impeding their ability to adhere to their medication regimen.



Definition of Terms

To provide a better understanding of this study, the key terms are explained both in theory and in practical terms as they apply to this research.

Adult Patients. An individual who has reached the age of adulthood and seeks treatment for health concerns.

Antihypertensive medication. It is a class of drug used to reduce blood pressure. Antihypertensive drugs are widely available and work in a number of ways to reduce blood pressure.

Blood pressure. is the pressure exerted by circulating blood on the walls of the arteries which carry blood from the heart to other parts of the body.

Condition-related factors. Consider the factors related specifically to the challenges a patient encounters due to their illness. Key influences on whether a patient follows their treatment plan include how much the illness affects their physical, mental, social, and work life, how intense their symptoms are, how quickly the condition progresses, the overall seriousness of the disease, and how easily they can access effective medical care. As reported by World Health Organization, how they affect patients' perceptions of risk, the significance of adhering to treatment, and the importance of adherence determine their impact.

Healthcare system-related factors. The World Health Organization lists the following as factors that contribute to non-adherence: Poorly structured health services combined with minimal or no coverage from health insurance plans; inefficient medication supply and distribution; insufficient training and expertise among healthcare workers in chronic disease management; healthcare staff stretched too thin; absence of motivation and feedback systems for providers; short patient consultations; limited capacity within the healthcare system to educate patients and maintain ongoing follow-up; challenges in building community support and fostering patients' ability to manage their own care; and a general lack of understanding about adherence issues and proven strategies to enhance it.

Hypertension. It means the force exerted by the blood against the walls of the arteries is elevated, typically measured at 140/90 mmHg or above.

Level of Non-adherence. The degree of the inability of an individual to take a

prescribed treatment regimen.

Non-adherence. Inability of an individual to take a prescribed therapeutic regimen for 2 weeks.

Out-Patient Department. The private hospital area is devoted to treating patients with health issues who come in for treatment or diagnosis but do not currently need urgent or extensive medical management.

Patient-related factors. this dimension of non-adherence involves how patients' beliefs and understanding of their illness, along with their expectations about treatment outcomes and the consequences of not following prescribed care, combine with their motivation and confidence to manage their condition, ultimately shaping their adherence to treatment.

Private hospitals. Are stated as health service facilities that charge for the prescribed medical services they provide to patients.

Strategic Compliance Program. a series of internal policies and procedures designed to address and overcome a specific challenge facing the institution.

Social and Economic Factors. This refers to the factors of non-adherence like inadequate social support networks, unemployment, low educational attainment, poverty, illiteracy, poor socioeconomic status, unsteady living situations, living far away from healthcare facilities, expensive transportation, costly



medicines, family conflicts, changing surroundings, and traditional or common beliefs about illness and treatment.

Treatment. Is the delivery, management, or coordination of medical care and associated services by one or more healthcare professionals.

Therapy-related factors. This includes elements like how complex the treatment regimen is, how long the therapy lasts, any previous unsuccessful treatments, how often the treatment is changed, how quickly patients notice improvements, side effects experienced, and the accessibility of healthcare support to address these issues.

CHAPTER II

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the relevant studies and literature reviewed by the researcher to support the significance of the current study; it also contains the concepts and theories that will be used to analyze the study.

Related Literature

Hypertension, or high blood pressure, occurs when the force of blood against the walls of the arteries rises above the normal level—typically 140/90 mmHg or higher. While this condition is common, especially as people age, it can become serious if left unmanaged. Many individuals with high blood pressure do not experience any noticeable symptoms, so the only way to detect it is through regular blood pressure measurements. Factors such as advancing age, family history, excess body weight, sedentary lifestyle, heavy alcohol consumption, and lack of exercise can all increase the likelihood of developing hypertension. Making lifestyle adjustments like eating better, quitting smoking, and exercising more can reduce blood pressure, but some patients could still require medication (World Health Organization,2023).

Ornedo (2021), stated that the rate of hypertension in the Philippines increased to 37%, reflecting a steady growth in the number of Filipinos diagnosed with high blood pressure in 2021. The investigation also discovered that the majority of hypertension was higher among the elderly, at 72%, compared to teenagers or those between the ages of 12 and 18, at 5%. According to the report, 67% of adult hypertensives use medicine to lower their blood pressure, 36% have successfully managed their illness, and 64% have uncontrolled hypertension. The study also revealed that 13% of hypertensive people are non-adherent to their medication regimens.

Sison (2023), confirmed that from PRESYON 3 (2013) to PRESYON 4 (2021), the prevalence of hypertension rose by 32%, a significantly larger increase than the 3% to 4% growth observed in earlier PRESYON studies. Twelve out of thirteen regions in the Philippines had an increase in the number of hypertension cases. 19% of respondents were aware that they had hypertension, while 18% were not aware of it. It's interesting to note that 72% of the elderly (those over 60) in PRESYON 4 had hypertension. Given the association between age and hypertension, this is not surprising. Unlike the findings in PRESYON 4, where only 29% were unaware, a large majority—71%—of elderly individuals were aware of their hypertension. This high level of awareness, along with the elevated prevalence of the condition in this age group, is likely due to more frequent medical consultations. Many older adults have undergone workups performed, received confirmed diagnoses, and are undergoing long-term treatment for high blood pressure.



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Pantalen (2023), maintained that despite a notable rise in the number of Filipino adults who suffer from hypertension aged 20 and above, adults 60 years of age and older had the highest percentage of controlled hypertension, and it was noted that the rate rose with age. It was also pointed out that women are more likely to have controlled hypertension. Their greater attention to healthcare and adherence to prescribed medication can help to explain this. The prevalence of controlled hypertension was higher among adults with greater educational attainment than adults with lower educational status. Research indicates that adults with higher gross monthly income and education attainment are also more likely to have hypertension, as are men. The highest prevalence of hypertension was found in people receiving monthly pensions; in contrast, the highest prevalence was found in adults without a job.

Mercado-Asis et al. (2020), analyzed existing statistical data to estimate the future prevalence of hypertension in the country by the year 2050. They applied a linear regression model to project how hypertension could affect the nation over time. In 2050, the number of cases of hypertension will triple, according to the results, although the prevalence will stay as high as 23% given the population estimate. Filipino men will have a greater prevalence rate of hypertension by 2050, but female cases will double. However, the prevalence of hypertension decreased in 2018 as a result of several government and medical society measures. They anticipate a reduced predicted hypertension prevalence rate and a decrease in cardiovascular mortality if the downward trend holds. This trend will persist unless government and medical programs to combat hypertension are strengthened. The country needs to implement the necessity for ongoing proper diagnosis and care of hypertension.

Consistently taking prescription drugs as directed is one of the most significant challenges people face when attempting to manage their health. In Mississippi, family support is essential in creating a nurturing atmosphere that promotes adherence and improves patient care. A loved one's dedication to their treatment can be significantly impacted by the combined efforts of a family, from establishing daily routines to gently reminding them. Family members' emotional support can help reduce the stress of caring for a medical condition. Open communication and a closer bond are made possible by a shared understanding of pharmaceuticals' possible drawbacks and advantages. The family is empowered to make knowledgeable decisions regarding treatment options thanks to this shared knowledge (Savoie, 2024).

According to You (2022), recent statistics Studies indicate that around 20 to 30 percent of prescribed medications are never actually picked up by patients, and about half of those with chronic conditions don't follow their medication plans properly. This non-adherence contributes significantly to health problems—leading to between one-third and two-thirds of all hospital admissions each year. It also plays a role in poor health outcomes, accounts for roughly half of all treatment failures, and increases illness and death rates. Alarmingly, non-adherence is linked to approximately 125,000 premature deaths annually. Beyond the human cost, it drives up healthcare expenses by an estimated \$100 to \$289 billion each year due to avoidable medical treatments and complications.

The Heart Disease and Stroke Prevention Division in the United States (2020), stressed that effective hypertension control depends on medication compliance for many individuals. Only about half of Americans being treated for high blood pressure actually follow their doctor's advice when it comes to taking medication over the long term. Sticking to treatment is essential for managing the condition effectively. Blood pressure control is more likely when prescribed antihypertensive drugs, but the risk of death for patients who don't take their cardioprotective medications as prescribed increases from 50% to 80%. Clear and open two-way communication significantly increases the chances that patients will



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follow their medication plans. Building trust requires genuinely understanding and openly tackling the challenges patients face. Patients who have trouble taking their medications as prescribed may be able to predict who will not. When discussing drugs, consider whether the patient 1.) has low literacy or an inadequate command, 2.) Has a history of mental health conditions like addiction, depression, or anxiety; 3.) does not think that treatment is beneficial; 4.) believes that taking medication is dangerous or unneeded; 5.) worries about potential drug adverse effects. 6.) expresses concern over the price of prescription drugs, and 7.) claims to be sick of taking medication.

A significant factor contributing to poor blood pressure control is patients not following their prescribed antihypertensive treatment, with non-adherence rates reported to range from 10% to 80% among those with hypertension. In patients with hypertension, failure to consistently follow prescribed antihypertensive medication regimens predicts a bad prognosis since it correlates with the degree of blood pressure increase. The causes of non-adherence to antihypertensive treatment are complex and include factors related to the medical care environment, medication treatments, the nature of the disease, individual patient factors, and their economic and social circumstances (International Society of Hypertension Global Hypertension Practice Guidelines, 2020).

While (2021), maintained that medication remains the primary method of treatment, and its success depends on patients taking it exactly as prescribed. When patients don't follow their medication plans, it leads to wasted resources and increased strain on the healthcare system, as more people end up experiencing preventable complications. Various factors, including intentional and unintentional non-adherence, influence an individual's compliance with a medication regimen. While various resources can assist, consulting a healthcare professional is essential to identify the reasons behind non-adherence and to promote better compliance.

Kulkarni and Graggaber (2022), states the Five factors that contribute to nonadherence were identified by the World Health Organization (WHO): 1. social/economic, which is the cost of prescription and minor ethnicity group; 2. patient-related comprises the understanding health information, anticipated side effects, memory lapses; 3. treatment-related factors include how long it takes for the medication to show results, complicated medication schedules, side effects, the number of pills a patient must take, and how often they need to get their prescriptions refilled; 4. condition-related is lack of symptoms, lack perceived benefit from treating the illness, comorbidities, and 5. Healthcare-related issues are an insufficient collaboration, exhausted clinician, dismissive attitude towards patients, limited time for patient interaction, unclear communication, and unconscious prejudices. Patients frequently have multiple factors that contribute to their nonadherence.

Also, the World Health Organization (2023), argued that the modifiable risk factors include being overweight or obese, using tobacco and alcohol, being inactive, and eating unhealthy foods. Risk factors that cannot be changed include being over the age of 65, having close relatives with hypertension, and having medical conditions such as diabetes or kidney disease. Many people with high blood pressure do not show any symptoms. However, very high blood pressure may cause warning signs like headaches, blurred vision, chest discomfort, and other symptoms. The simplest and most effective way to know if someone has hypertension is by measuring their blood pressure.

Another review was conducted to ascertain the socioeconomic effects of hypertension in the Philippines over the ensuing 30 years. Uncontrolled hypertension had the following impact on respondents' productivity at home: six (6) days of household work were suspended (66%), eleven (11) days of household labor were reduced (78%), and five (5) days influenced social activities (60%). In 2020, the



premature death load accounted for 17% of the overall economic burden; by 2050, it will rise to 20%. In 2020, direct and indirect care accounted for 70% of the whole financial burden. If current trends continue, the economic burden of hypertension is expected to nearly double, increasing from US\$1 billion in 2020 to approximately US\$1.9 billion by 2050. Uncontrolled hypertension has had a significant, complex, and debilitating socioeconomic impact on the Philippines for 30 years (Mercado-Asis et al., 2022).

Oller (2023), discussed that changing one's lifestyle helps reducing one's blood pressure. Elevated blood pressure, causes damage over time. Undiagnosed and unmanaged hypertension can result in 1. Blood vessels can clog or burst in the brain; 2. Blockages in the arteries can prevent blood flow to the heart muscle; and 3. Heart needs to work harder; 4.) damage to the kidneys' surrounding arteries can prevent the kidneys from adequately filtering blood; 5.) strained or damaged blood vessels in the eyes; 6.) erectile dysfunction in men and lower sex drive in women; 7.) Heart disease can eventually result from high blood pressure such as angina, or chest pain. (8) High blood pressure can cause artery damage and encourage the buildup of artery-clogging plaque (American Heart Association, 2024).

In the article by Elliott et al. (2024), certain risks are involved when tapering off antihypertensives. a.) Adverse cardiovascular outcomes - Stopping antihypertensive medication might have a negative impact on the heart. For instance, stopping antihypertensive medication in patients who had already received treatment was linked to higher rates of overall mortality rate (59 compared to 42 deaths per 1000 patient-years) cardiovascular death, and nonfatal cardiovascular. b.) Return of hypertension – Hypertension can sometimes surpass pretreatment levels when antihypertensive medication is tapered off for days to weeks. c.) Withdrawal syndromes – particularly beta blockers and alpha-2 agonists. When reducing their medication, extra care must be taken to monitor these patients. d.) Psychologic distress: When tapering off medication, patients may feel anxious. The leading cause of study dropouts was increased psychological distress and anxiety, highlighting the significance of consistent follow-up and comfort when stopping antihypertensive medication.

In the Philippines, approximately 37% of people have been diagnosed with hypertension as of 2022, as cited by The Medical City (2020). Between January and February 2022, hypertensive disease was responsible for 2,565 deaths, accounting for 5.9% of all recorded deaths during that period, making it the fifth leading cause of mortality in the Philippines, according to data released by the Philippine Statistical Authority (Baclig, C.E, 2022).

According to Balita, C. (2024), Preliminary data from January to September 2023 shows that hypertensive disorders caused 5.6% of the fatalities in the Philippines. Data on deaths from these illnesses began to be collected in 2017. Since then, the percentage has varied nationally, averaging 4.5 percent; in 2022, it peaked at 5.8 percent.

Cardiovascular diseases (CVDs) account for about 30% of all deaths in the Philippines. These conditions fall under the larger group of noncommunicable diseases, constituting 72% of all deaths in the nation. To achieve this, on September 29, 2022, the DOH-Center for Health Development (CHD) Western Visayas, in collaboration with WHO Philippines and Resolve To Save Lives (RTSL), will also relaunch Diabetes and Hypertension Clubs, patient support groups that were put on hold due to the COVID-19 pandemic. One of the most critical components of an inclusive and successful Non-Communicable Disease control intervention is getting patients organized into active health clubs. Their input and experience are crucial for enhancing several program elements related to NCDs (World Health Organization| News, 2022).



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Guillermo (2022), in conjunction with the inaugural World Heart Day 2022 celebration on September 29, the province of Iloilo called for a worldwide mobilization of people to support the prevention and treatment of cardiovascular diseases. During the press conference, Dr. Adriano Suba-an, DOH regional director, stated that 29,331 people with hypertension sought consultation from medical facilities for screening and medication needs in 2019, making hypertension the third most common cause of morbidity. This meant that 12,892 people died in a year. According to DOH-Region 6 data from 2020, 60,947 hypertensive individuals in Western Visayas were screened and found to be newly identified cases; a total of 44,020 patients sought consultation from medical facilities, representing a 130% increase that may have been caused by increased screening and detection of hypertension even during the pandemic.

The PRESYON-4, cited by Padilla (2024), stressed that although 86% of patients adhered to their antihypertensive treatment regimen, only 39% of those who took their medications as prescribed had controlled their blood pressure. The fact that 79% of the compliant patients received monotherapy may partly contribute to this. Monitoring blood pressure at home on a consistent basis is important. Additionally, it can increase patients' sense of empowerment over their health and encourage them to maintain a healthier diet to lower their blood pressure.

For more than six decades, hypertension has remained a major contributor to the country's high mortality rate in the Philippines. Given these figures, numerous global health groups continue to push for increased knowledge of and better control of hypertension. May Measurement Month (MMM), an annual effort that encourages individuals to get their blood pressure tested, is one of the campaigns with this objective (Omron Health Care Business, 2022).

The DOH began establishing the DOH Hypertension and Diabetes Club in 2016. This initiative will be rolled out across the country to enhance efforts in addressing non-communicable diseases (NCDs). It will also serve as a community-based support network, helping to share information and ensure that patients have access to the appropriate treatment they need. More than 600,000 patients were listed as club members as of February 2017. The client must contact the closest primary healthcare facility or health center to receive evaluation, preventive screening, and appropriate care based on the guidelines of the Philippine Package of Essential Non-Communicable Disease Interventions protocol to be a member of the said club. After being diagnosed with diabetes and hypertension a patient can become member of the club. Members can avail free medications such as Metformin for diabetes and Losartan, Amlodipine, or Metoprolol for managing high blood pressure. They can also take part in programs that promote healthy living and wellness (Department of Health, 2023).

According to Aucensillo (May 2022), May is high blood pressure (hypertension) awareness month as the Department of Health (DOH)-Region 9 seeks to increase public knowledge and understanding of this critical medical disease, particularly in the Zamboanga Peninsula region. Many people still need more information despite using numerous platforms to raise awareness of hypertension in the area. The holes that need to be filled are ignorance and apathy around hypertension. DOH-Region 9 held a gathering and invited media professionals to the "Ka-Heartner campaign" discussion. The Ka-Heartner campaign aims to promote prompt community health-seeking behavior, empower the high-risk population's decision-making abilities, and raise public knowledge of this health problem. According to figures from the Field Health Services Information System (FHSIS), there were 372 hypertension-related fatalities in the area in 2019 and 32,861 people with hypertension who had been diagnosed.



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In their 2020 study, Hai Yan Chan and colleagues conducted an analysis focusing on the Medication Adherence Report Scale (MARS-5) showed satisfactory validity (criterion-related and construct validity) and reliability (internal and test-retest). The internal reliability for all respondents, measured by Cronbach's alpha, ranged from 0.67 to 0.89. For the hypertension scale, test-retest reliability using Pearson's r was found to be 0.97. Patients with higher adherence to hypertension treatment showed improved control of their blood pressure, establishing criterion-related validity. Higher adherence was linked to a deeper conviction about the importance of the prescribed treatment and fewer worries about its potential side effects or risks, demonstrating construct validity concerning medication views. It is concluded in this study that the MARS-5 showed strong performance on several psychometric measures. It has the potential to be a useful self-report instrument for gauging how patients describe using medications for a variety of illnesses.

Spetz et. Al. (2024), Correlation analyses showed that The Medication Adherence Report Scale (MARS-5) demonstrated acceptable validity. Meanwhile, the gap-coefficient—a continuous measure reflecting the intervals without medication availability—showed values between 0.49 and 0.54 when compared to adherence rates objectively assessed through pharmacy refill data. Cronbach's α (internal reliability) was high, at 0.81 and 0.95, respectively. The MARS-5 was shown to have satisfactory psychometric qualities for evaluating post-bariatric surgery adherence to vitamin and mineral supplementation.

Related Studies

Abalos et al. (2024), examined data from a nationally representative survey of 5,985 Filipinos in the Philippines who were 60 or older. Those with 90 mmHg for the diastolic or 140 mmHg for the systolic blood pressure were classified as having hypertension, as was anyone who reported taking antihypertensive medicine at the time. The results showed that nearly 7 out of 10 older Filipinos suffer from high blood pressure, yet just over 60% of them were aware of their condition. Furthermore, more than half of those diagnosed were not receiving any treatment. This highlights a significant gap between the high rate of hypertension among the elderly and their awareness and management of the disease. Although government efforts are underway to combat the growing number of hypertension cases nationwide, there is still a need to improve outreach and support specifically for the older population.

In southern Taiwan, Chang et al. (2021), investigated behavioral variables linked to medication nonadherence in hypertensive patients. They used questionnaires to gather information about the clinicodemographic traits and nonadherence practices of 238 hypertensive patients. Forgetting to take medication (28.6%), quitting medication (9.2%), and lowering the dosage (8.8%) were the most frequent non-adherence behaviors. Medication forgetfulness was correlated with age \geq 65 and male sex.

In a study by Andualem et al. (2021), patients with hypertension participated in cross-sectional research. There was 51.9% (46.8–58.3%) good adherence to antihypertensive drugs, while 48.1% was poor adherence. According to this study, nearly half of the hypertension patients at Dessie Referral Hospital took antihypertensive medication as prescribed. Good adherence was related to sex, occupational level, knowledge, and self-efficacy. Patients should be supervised by health extension workers and receive health education about the value of following the drug instructions.

According to Abbas et al. (2020), all of Lebanon's governorates were included in a cross-sectional survey of adherence to antihypertensive medication use. A random sample of 1497 individuals with hypertension underwent this study to collect data. Of the patients, 1253 (83.7%) reported taking antihypertensive drugs as prescribed. Following multivariate analysis, patients who attempted to manage



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their stress levels, those with regular blood pressure readings, and those who had faith in the efficacy of their therapy had a noticeably decreased likelihood of exhibiting non-adherence to treatment. However, older patients, divorced or separated, married, widowed, obese, and smokers of both cigarettes and hookah were more likely to have non-adherence. Their study emphasizes the impact of variables including advanced age, marital status, Body Mass Index, and high levels of emotional stress on hypertensive patients' non-adherence to treatment. These factors need to be taken into account while developing adherence-improving tactics.

Antihypertensive medication non-adherence is usually linked to unfavorable treatment results. A review of sixty-six studies involving 2,532,582 hypertensive patients from 22 Asian countries was conducted. In Asia, the approximate rate of non-compliance with antihypertensive medication was 48%. The non-adherence rate was 49% higher in females than in males (47%). In terms of regional differences, South Asia recorded the highest percentage of non-adherence at 48%, with East Asia close behind at 45%, and the Middle East at 41%. Likewise, a more significant percentage of non-compliance, 50%, was noted in low and lower-middle-income nations. It was concluded that Asia has a high prevalence of non-adherence to antihypertensive medication. To increase medication adherence, suitable policies and clinical procedures must be implemented (Mahmood et al., 2021).

Jayawardena et al. (2023), evaluated the sociodemographics, health conditions, medication compliance, and causes of the variations in compliance between respondents and their families during the financial crisis in Sri Lanka. The survey included 1214 respondents who were at least eighteen years old. 60% of the participants were female. The likelihood of responding to medication changes was significantly higher when they did not reside in the Colombo district. In contrast to those who made over 100,000 Rupees per month, respondents with monthly incomes of less than 100,000 Rupees were twice as likely not to take their medications as prescribed. Adults gave the high cost of drugs as their main excuse for changing their prescriptions. At the same time, children cited a lack of access to medications in the public or private sectors as their main reason for non-compliance.

Essayagh et al. (2021), investigated using multistage sampling to enroll 922 hypertensive patients treated at primary health facility in Meknes. In-person interviews were conducted with patients to gather information on their lifestyle choices, clinical parameters, socio-demographic traits, and interactions with the healthcare system, doctor, and patient. The participants had a male-to-female ratio of approximately one to three, with an average age of 61 years (\pm 11). The rate of medication non-adherence was notably high at 91%. Factors that were associated with a greater likelihood of not following prescribed drug regimens included being male, having a household monthly income below \$150 or between \$150 and \$200, experiencing a poor connection with the healthcare system, and having uncontrolled blood pressure. It is concluded that Meknes patients with hypertension generally have a high rate of medication non-adherence. Prevention should prioritize treating the poorest patients first, guarantee that the primary health care facilities have sufficient supplies of anti-hypertensive medication, and help patients control their blood pressure.

In a study by Mebrahtu et al. (2021), all 335 participants—222 (66.3%) of whom were female participated in the research study. The Medication Adherence Report Scale (MARS) in modify form was used to assess medication adherence. In general, limited understanding and inconsistent compliance to Antihypertensive Medication were present in 246 (73.4%) and 244 (72.8%) of the participants, respectively. The multivariate analysis's findings demonstrated that elements like sex (female), employment status, lack of attendance at clinic health talks, high transportation costs, Awareness about



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the condition and the severity of hypertension were linked to a higher likelihood of not following treatment properly to Antihypertensive Medication. It was also observed that there was a low level of understanding about the risks or complications connected with hypertension. In summary, the significant rates of non-adherence to antihypertensive medications, coupled with limited awareness about hypertension, call for urgent attention. Expanding access to healthcare through decentralized services and offering targeted educational programs are vital strategies to address these issues within this population.

Serrano et al. (2022), conducted a study where the variables influencing the antihypertensive medication were examined. Compliance during the COVID-19 epidemic in a few T'boli, South Cotabato barangays. This study aimed to identify the elements influencing hypertension patients' adherence to their treatment throughout this pandemic. A total of 360 hypertensive patients who also had other health issues like diabetes, high cholesterol, and cardiovascular disease were included. The findings revealed that a person's level of education was significantly linked to how they perceived their condition. Moreover, habitual smoking, comorbidity, and substantial levels of accessibility also played a role in whether they followed their medication regimen. As a result, healthcare professionals should encourage hypertension patients to take their medications as prescribed to improve their health and reduce the additional health-related burdens of this epidemic.

In this study by Macalinao et al. (2022), healthcare professionals from Jose R. Reyes Memorial Medical Center had their antihypertensive treatment adherence and related factors evaluated. Two hundred fifty workers in a retrospective analytic study who self-reported hypertension was included. Associations between socio-demographic, occupational, and health-related variables were evaluated regarding compliance. Patients with managed hypertension made up 60% of the subjects. The prevalence of antihypertensive treatment interruption and missed doctor appointments was the leading cause of decrease adherence. Patients often struggle to comprehend the significance of following treatment regimens because hypertension and other cardiovascular diseases are asymptomatic conditions that call for ongoing therapy.

According to the study of Gutierrez and Sakulbumrungsil (2021), Strong communication between patients and healthcare providers, easy access to medical services, participation in specialized hypertension clinics or programs, and having health insurance were all positively linked to better medication adherence. (1) Socioeconomic factors, such as unemployment, low educational attainment, youth, and single civil status; (2) Patient-related factors include limited understanding of health information, poor awareness or knowledge about hypertension, negative attitudes toward the condition, low confidence in managing their illness, and inadequate support from family or community; (3) Therapy-related influences involve irregular medication schedules, the prescription of drugs like Thiazide diuretics, and the simultaneous use of alternative or traditional remedies; and (4) refer to a weak personal recognition of the seriousness of hypertension and the absence of other existing health issues that might otherwise reinforce treatment adherence. The findings highlight the need to enhance access to government health services and expand specialized clinics tailored to the needs of Filipino patients with hypertension and providing ongoing support are essential to improving adherence rates.

Adorada et al. (2023), investigated the variables influencing the medication adherence of participants in the district health centers in the city of Baguio's Hypertension and Diabetes Club. 374 respondents from the 16 distinct district health centers in the City of Baguio participated in this cross-sectional study. Several factors have been linked to non-adherence, including lack of funds, the belief that the



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medication is ineffective, taking multiple medications, taking them for an extended period, interfering with meal plans, feeling that the dose is too high, and the complicated nature of the prescribed treatment plan. Conversely, factors that contribute to medication non-adherence include drug complexity, subjective reports of medication being too high, conflict with meals, long-term medication use, and multiple medication use. To prevent additional complications from common non-communicable diseases, It is essential to determine the elements that affect adherence and nonadherence to prevent additional complications from the common non-communicable disease.

As mentioned in the study by Seguin et al. (2022), long-term medication adherence in these populations is examined, and four different drug adherence patterns are identified. They are using longitudinal qualitative approaches that included 34 participants' 12-month collections of digital diaries and follow-up interviews. The study concluded that poor patient attitudes regarding medication, patient behaviors, poor experiences with healthcare providers, and poverty are only a few examples of patient-level hurdles to medication adherence. At the level of the health system, obstacles include improper application of clinical recommendations, geographical restrictions, and challenging pharmaceutical regimens. On the other hand, adherence promoters have free medication, family and friend support, and access to private treatment.

Another study by Bajet-Bermio et al. (2020), examined how well hypertension individuals followed their treatment regimens in a few municipalities in Ilocos Sur's First District. It discussed the respondents' adherence to their hypertension treatment plan, follow-up exams, and lifestyle changes. The perceived obstacles to taking the drug were also noted. Finally, it examined the strong correlations between the respondents' treatment compliance and their characteristics, perceived causes of hypertension, and hypertension knowledge. The paper advised that: 1. Healthcare professionals always emphasize the regular medication regimen instruction, including patient education and counseling in routine follow-ups to maintain a "Very High" amount of compliance and to prepare for non-adherence. 2. The primary counselors should be doctors since they are the most trustworthy sources of knowledge regarding hypertension, healthy lifestyles, and self-care. To maintain the responders' "Very High" level of treatment compliance, management, lifestyle advice, and appropriate illness management views; 3. The pharmacies rigorously follow RA 9994 to offer discounts to elderly residents. Continuous monitoring of hypertension patients by community health care practitioners increases their standardized management and reduces complications and other negative consequences.

In this study by Haduca et al. (2023), involving hypertensive Filipinos aged 40–65 living in the Greater Manila Area during the pandemic, examined the relationship between medication adherence and the patient-doctor relationship. A cross-sectional study with 131 hypertensive Filipino participants was carried out. About half of the participants showed good adherence to their hypertension medications. The patient-doctor relationship and overall medication adherence were positively correlated. There was also a slight positive correlation observed between the length of antihypertensive drug use and medication adherence. Comorbidities and the kind of consultation had no discernible effect on medication adherence. This study emphasizes how crucial the connection between patients and doctors is for ensuring that Filipinos with hypertension follow their medication regimen. Improving patient-physician trust and communication can improve medication adherence and overall disease management.

Moreover, According to Ramawat et al. (2020), four hundred hypertension patients were chosen from the Outpatient Department of a Delhi hospital with a tertiary care center by conducting a communitybased cross-sectional prospective study. They concluded that patients needed to increase their



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compliance. Consequently, a healthcare professional should follow their new role, which calls for appropriate dispensing techniques. After educating the patients on hypertension and its side effects, there is a persistent improvement in adherence to antihypertensive drugs. Patients' understanding of hypertension has to be improved. The level of patient compliance must rise. It's a must to create guidelines for pharmacists to follow to fulfill their new position, which calls for proper dispensing techniques.

Edward et al. (2021), conducted an investigation in Dar es Salaam, Tanzania, to identify the obstacles to taking Hypertensive treatment as prescribed. The study concluded that several context-specific variables are needed to manage hypertension patients effectively for medication adherence. These efforts involve doctors enhancing their communication and counseling to focus more on the individual needs of patients, implementing patient-focused approaches such as reminder systems to support medication adherence especially in resource-limited areas, and introducing policies that improve affordability—like providing subsidies for low-income patients and creating easier access to refill medications.

A study by Gemeda et al. (2020), used meta-analysis and systematic review to assess the degree and contributing elements of antihypertensive medication adherence among adult hypertension patients in Ethiopia. The final systematic review and meta-analysis included 14 trials with 4938 hypertensive individuals. Despite differences across included studies, it is found that antihypertensive medication adherence among Ethiopia's hypertensive population was average. The existence of problems or comorbidities reduced the likelihood of compliance, whereas among hypertensive patients, having a thorough understanding of the condition enhanced the possibility of medication adherence.

Lasco et al. (2020), aimed to identify the causes of adult patients' hypertension in the Philippines, possible explanations for these perspectives, and implications for hypertension management. This qualitative study included 71 semi-structured interviews with patients diagnosed with hypertension (40 initial and 31 follow-up interviews). Four main factors—heredity, temperature, emotional strain, and nutrition—were thought to be responsible for what patients call "high blood". Researchers behind the study proposed that improving patients' understanding and commitment to treatment could be possible by recognizing that many view hypertension not as a continuous, long-term illness, but instead as a condition that occurs in episodes triggered by external factors—despite some individuals having a genetic tendency toward it.

In this study by Villarino (2021), nonadherent participants with hypertension were evaluated for their ability to manage elevated blood pressure levels following a lifestyle intervention program. The program's effectiveness was evaluated using an adapted form of the Beliefs, Attitudes, Subjective Norms, and Enabling Factors (BASNEF) model. Specifically, the assessment employed a repeated-measures design following a within-subjects approach was used on 50 nonadherent hypertensive patients in Cebu, Philippines. The research subjects were trained in five sessions using a modified version of the BASNEF model. The results revealed a notable decrease in the average systolic blood pressure from phase 1 (mean 146.50, SD 19.59) to phase 4 (mean 134.92, SD 15.24). This study highlights the effectiveness of using the BASNEF model as a strategy for managing blood pressure. Additionally, it suggests that lifestyle changes encouraged during the session III or phase IV behavioral intention phase within the BASNEF microgroup sessions had a positive impact on participants' blood pressure levels.

SYNTHESIS

Research and studies repeatedly show a clear connection between socio-demographic characteristics and



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the likelihood of patients not following their medication regimens. Studies have shown that age, gender, education level, income, and employment status significantly impact non-adherence rates. For instance, older adults are often more likely to adhere to prescribed treatments. In contrast, younger individuals exhibit higher non-adherence rates due to lifestyle factors or perceived invulnerability. Some studies show that non-adherent behaviors are correlated with the male gender. Additionally, those with more education typically have superior understanding to their medical conditions and treatment regimens, which promotes adherence. Income and unemployment also play a crucial role, as patients who have a lower socio-economic background often face greater difficulties in being able to pay for their medications, leading to higher rates of non-adherence.

Some studies show that various factors influence the degree of medication non-adherence. 1. social/economic, which is the cost of prescription and minor ethnicity group; 2. patient-related factors include their understanding of health information, concerns about real or imagined side effects, and simply forgetting to take their medicine. 3. therapy-related issues involve the time it takes for the medication to show benefits, complicated treatment plans, side effects, the number of pills required, and how often prescriptions need to be refilled. 4. condition-related factors include the absence of noticeable symptoms, patients not recognizing the benefits of treatment, and the presence of other health problems. Lastly, healthcare system-related challenges include a lack of coordinated care teams, healthcare provider burnout, dismissive attitudes, limited time during consultations, poor communication, and unconscious biases.

Studies above have shown that the Most individuals diagnosed with hypertension fail to follow their prescribed antihypertensive medication regimen. The aforementioned studies also examined the significant relationships between respondents' characteristics and treatment non-adherence. The patient-doctor relationship, strong family support, comorbidity, chronicity, and length of antihypertensive drug use show a positive correlation to medication adherence. Most of the studies suggest that focusing of addressing patient's perception, lifestyle intervention, improving patient-physician trust and communication, and additional proper medication dispensing technique to improve patient's adherence to medication treatment.

The present investigation aligned with prior literature and studies in this field since it focused on the respondents' medication non-adherence to drug therapy and the factors associated with it. The study differs from the others in that it focuses on studying area from various hospitals of rural settings were there's still a need for a more detailed investigation into less-explored barriers unique to rural settings like geographic isolation, transportation, and local healthcare resources, especially within underserved or minority populations, and better understanding how intentional and unintentional cues affect medication non-adherence, having a wide variety of sociodemographic profiles present to the research locale, identifying additional variables that may influence driving factors such as social/economic and patient-related, also covering the usual underexplored domains such as aspects connected to the treatment itself, nature of the illness, and gaps or barriers within the medical service delivery as to medication non-adherence and describing their interactions. These may be used to assess the predictors of non-adherence to antihypertensive medication and develop a strategy program for the population's identified cause of non-adherence to drug therapy.

Theoretical Framework

This study was guided by three foundational nursing theories: Nola Pender's Health Promotion Model,



Hildegard Peplau's Interpersonal Relations Theory, and Dorothea Orem's Self-Care Deficit Nursing Theory. Each provided a distinct lens for analyzing patient behavior and nursing interventions. The researcher will describe how various factors relate to a patient's non-adherence to therapy while taking medication.

Self-Care Deficit Theory (by Orem, 1971 as cited by A. Gonzalo, 2024) center on people's actions to preserve their health and well-being. Activities aimed at delivering self-care are referred to as self-care requirements or needs. Health deviation self-care requisites can arise from medical interventions to diagnose and treat an illness, injury, or disease. This theory concept can be used to explain the several factors affecting the non-adherence of one person: 1.) One must look for and obtain the right kind of medical care. 2.) Recognizing and addressing the impacts and outcomes of pathological states and conditions as hypertensive. 3.) Performing therapeutic, rehabilitative, and diagnostic procedures as directed by a doctor with effectiveness. 4.) Recognizing, managing, and mitigating the uncomfortable or detrimental consequences of prescribed medical interventions. 5.) Changing one's self-perception (and self-image) to accept that one is in a particular health state and requires medical attention. 6.) Learning to cope with the effects of illness and the results of medical tests or treatments in a way that encourages continuous personal development. This concept shows that a person will always look for a way to manage health if they recognize their problem with health. Not achieving these requisites could only be possible if several barriers exist for the person to comply.

Nola Pender's Health Promotion Model (1982, as cited by A. Gonzalo, 2024) states that Each person's future actions are shaped by their unique traits and life experiences. This theory highlights three main elements: (1) personal characteristics and past experiences, (2) specific thoughts and feelings related to certain behaviors, and (3) the resulting behavior or action. Medication non-adherence involves how personal characteristics, knowledge, and external factors influence medication-taking behaviors. The model emphasizes the importance of behavior-specific knowledge and affective variables in motivating health-promoting behaviors, including medication adherence.

Hildegard Peplau's Interpersonal Relations Theory (1952, as cited by A. Gonzalo, 2024) stresses the importance of a collaboration emphasizing shared responsibility between the nurse and the patient merely obtaining care and the nurse simply carrying out the doctor's orders. Medication and non-adherence involve understanding the critical role of the nurse-client relationship in fostering adherence behaviors. Peplau's theory emphasizes the importance of interpersonal interactions and partnerships between nurses and patients, highlighting the reciprocal nature of their relationship. This relationship can significantly influence patients' medication adherence through various phases and roles the nurse assumes, such as gaining trust, active listening, identifying problems, motivating the patient, and ensuring the patient has continued education and resources for maintaining medication adherence. Peplau's Interpersonal Relations Theory highlights the importance of a strong nurse-patient relationship in promoting medication adherence. Nursing interventions that promote medication adherence can be effectively developed by aligning them with the stages of the nurse-client relationship and the various roles nurses take on in patient care. Effective communication, trust-building, education, and empowerment are critical components in fostering adherence behaviors, ultimately leading to better patient health outcomes.





Figure 2.1 The Theoretical Framework

This diagram illustrates the five key factors influencing non-adherence as identified by the World Health Organization: socioeconomic conditions, individual patient factors, aspects of the treatment itself, the nature of the medical condition, and elements related to the healthcare system. The three grand nursing theories Self-care deficit, Health Promotion, and Interpersonal Relation were used to analyze the study to attain the change of behavior toward medication non-adherence.

Conceptual Framework

Medication non-adherence significantly affects hypertension management, increasing the likelihood of heart-related complications, declining kidney function—potentially leading to end-stage renal disease and a higher risk of death from various causes. Identifying the factors associated with medication nonadherence could help us devise an intervention that could improve the state of the community's medication compliance with drug therapy.

The attending patients in different hospitals may differ in their reasons for not taking maintenance antihypertensive medications. The community in which each of the target respondents may have a unique healthcare system, which can result in differences in the status of every community regarding medication adherence among patients. In addition, the patient's profile and factors identified can explore the potential impact on the study's results. Thus, understanding and considering the relationship of these variables can provide a more complete relationship between the patients and their medication adherence to drug therapy.

This study employed the Input-Process-Output (IPO) framework to outline and clarify the components involved in the process, including the initial inputs—such as resources, information, or influencing factors—the procedures that act upon them, and the resulting outcomes. Utilizing this model also allowed the researcher to gain deeper insight into how these different elements interact and contribute to shaping the research design and guiding the analysis.



Research Paradigm

The input-process-output (IPO) model serves as a framework for understanding and analyzing how different elements interact within a system or issue. Commonly used in research planning, it illustrates the flow of data, activities, and results throughout a process or sequence.



Figure 2.2. The Research Paradigm

The diagram above illustrates the relationships among variables through the Input-Process-Output (IPO) framework. The input components include the sociodemographic characteristics of adult patients visiting outpatient departments in selected private hospitals in Southern Palawan, their levels of medication non-adherence, and the specific factors contributing to this non-adherence—namely social and economic conditions, patient-related issues, therapy-related challenges, the nature of the medical condition, and aspects of the healthcare system. The process involves pilot-testing the research instrument to ensure validity and reliability, distributing the questionnaire, and conducting statistical analysis of the collected data. The output serves as the foundation for developing a strategic compliance program aimed at fostering behavioral change within the identified patient group.

CHAPTER III RESEARCH METHODOLOGY

This chapter outlines the research design and methodology, describes the population and sample involved, details the instruments used for data collection, explains the statistical methods applied, and presents the procedures followed throughout the study.



Research Design

The research employed a correlational design to explore the associations among multiple variables. Because this type of study is non-experimental, the researcher does not alter or influence any variables. A correlation refers to a link or association between two variables. This connection can be either positive or negative, though in some cases, no correlation may be present at all.

Research Participants

The research participants of this study will be clinically diagnosed Non-adherent Hypertensive Adults under an antihypertensive medication regimen in the outpatient department presently consulting in Rio Tuba Nickel Foundation Incorporated Hospital, Leoncio General Hospital, and Sagrado Hospital in Southern Palawan. Non-adherent hypertensive patients under a medication regimen will be chosen from three (3) hospitals.

The inclusion criteria used for the respondents to be eligible participants for the researcher-assisted survey: 1.) Must have a confirmed diagnosis of hypertension as recorded in their medical history or outpatient department (OPD) records; 2.) Aged 21 years and above to ensure legal consent and cognitive ability to complete the survey; 3.) Must have been prescribed antihypertensive treatment for a minimum of three months prior to the study, to enable a reliable evaluation of non-adherence patterns; 4.) Must be a regular patient of the selected private hospitals in Southern Palawan and have attended the OPD within the past 2 months for hypertension-related consultations; 5.) Able to read and understand the survey language (e.g., English or Filipino) to ensure accurate comprehension of the questions; 6.) must sign the informed consent form and willingly consent to participate after being briefed on the study purpose and process; and 7.) must score < 19 points in the preliminary screening tool, the adapted MARS-5 (Medication Adherence Report Scale) to be identified as non-adherent for the completion of criteria. Participants were excluded if they were unable to read and write, were too sick to respond, had dementia, were pregnant, or scored greater than or equal to 20 points on the adapted short screening survey that was implemented.

The study employed purposive sampling to choose participants with preliminary screening for nonadherence. Purposively, participants were selected based on the inclusion criteria of being diagnosed with hypertension under a medication regimen with the behavior of non-adherence. A short screening was performed to identify the non-adherent participants from the population. Surveys were administered during the participants' routine OPD visits over 2 months to capture participants during their natural healthcare visits.

The sample size was calculated using Cochran's formula, based on a 95% confidence level (Z = 1.96) and a margin of error of 7.5% (e = 0.075), and an estimated non-adherence prevalence of 50% (p = 0.5) to account for maximum variability. Since the exact number of non-adherent patients is unknown, the total hypertensive consultation from the three private hospitals in April to June 2024 (1178 at RTNFI Hospital, 39 at Leoncio Gen. Hospital, 42 at Sagrado Hospital, making N = 1,259) was used as a reference. After applying the finite population correction, the required sample size is 151 participants. This method preserved statistical validity while guaranteeing that the sample was representative.

Research Instruments

A carefully organized questionnaire will be utilized as one of the research tools to help achieve the objectives of the study. It will be divided into two (2) phases:



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1. Short Screening Tool, an adapted version of the Medication Adherence Report Scale-5, originally developed by Professor Rob Horne, was used to assess participants' adherence to their prescribed medications. The tool includes five items rated on a 5-point Likert scale (5 – Never, 4 – Rarely, 3 – Sometimes, 2 – Often, 1 – Always), focusing on the frequency of non-adherent behaviors. The total score, ranging from 5 to 25, is calculated by summing the responses, with higher scores reflecting greater adherence to medication. Scores will range from 5-25, with a cut-off of less than or equal to 19 points considered non-adherent, and used to determine the level of non-adherence among the non-adherent respondents specifically. Scoring of non-adherence 5 - 7 (very high), 8 – 10 (high), 11-13 (moderate), 14-16 (low), and 17 - 19 (very low).

2. The Main Collection Instrument is a researcher-made questionnaire that was given to the participants who qualified (score <19) to complete the survey, which is divided into two (2) parts:

The first part of the questionnaire will gather socio-demographic information, including participants' age, gender, highest level of education completed, marital status, employment situation, and monthly income.

The second part of the questionnaire consists of 50 items where participants rate themselves using a 5-point Likert scale (1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree). Aligned to the Five factors of Non-adherence of the World Health Organization are used to categorize further: (1) Social/Economic (questions 1–10); (2) Patient-related (questions 11-20); (3) Therapy-related (questions 21-30); (4) Condition-related (questions 31-40); and (5) Healthcare System (questions 41-50).

Data Collection Procedure

Prior to starting data collection, the study obtained approval from the panelists on the thesis concept, completed a validation review, and secured certification from the ethics committee. The researcher first acquired a formal permission letter from the dean to conduct the study. Following this, approval was sought from the medical directors of the selected hospitals in Southern Palawan. Once permission was granted, the researcher coordinated with the chief nurse and the supervisor of the outpatient department nursing staff. Additionally, the outpatient triage nurse was enlisted to help identify participants who agreed to take part in the research.

Two Phases involved in Data Collection: screening and main data collection. The screening phase utilized an adapted instrument (MARS-5), and the Self-made main data collection phase questionnaire underwent pilot testing and expert validation for validity and reliability. Both phases required informed consent from the participants. The questionnaire is estimated to take 10–15 minutes, depending on the respondent's pace. The questionnaire was researcher-assisted, where the researcher guided the respondent through the questionnaire and explained terms or context as needed. The questionnaires were distributed during the designated 4-month study period (1st semester of 2025). The questionnaires were distributed and completed within the outpatient department of the selected private hospitals in Southern Palawan at any designated private area within the OPD to ensure comfort and confidentiality. Responses were documented directly on the questionnaire provided. There were no audio or video recordings to maintain respondent privacy. Respondents were provided: 1.) Printed copies of the questionnaire, 2.) A pen, and 3.) Informed consent detailing the study's objectives and confidentiality assurances.

The following was ensured present during the actual data gathering: 1.) Hypertensive patients underwent an antihypertensive regimen as respondents to the study. They have a role in providing independent, truthful, and accurate answers to the questionnaire. 2.) The primary researcher to: a.) Distribute



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questionnaires; b.) Brief respondents about the study purpose, consent process, and how to complete the questionnaire; c.) Answer clarification questions regarding the questionnaire (without influencing responses); d.) Ensure that the process runs smoothly and upholds confidentiality; and e.) Collect completed questionnaires and ensure secure storage for data analysis. When the researcher collected the data, the questionnaire was distributed to the respondents presently consulting in the Outpatient department. Before distributing the questionnaires, the researcher offers a brief self-introduction and outlines the study's purpose. In addition to obtaining written informed consent and permission from the respondents, the researcher also provided instructions on completing the questionnaire, and they will have ample time to finish it. Participants must complete the research-assisted survey within approximately 10-15 minutes. Participation involved responding to a structured questionnaire assessing antihypertensive medication adherence factors. Participants are expected to provide honest and accurate answers. No follow-up interviews or additional tasks will be required.

The researcher may terminate participation in the study under the following circumstances: 1.) If it is discovered that a participant does not meet the inclusion criteria; 2.) Participants who fail to complete a significant portion of the questionnaire, rendering their responses unusable for data analysis; 3.) Participants who engage in behaviors that compromise the integrity of the study, such as providing intentionally false or inconsistent information; 4.) If a participant experiences physical or emotional distress during the study, the researcher may terminate participation to prioritize their well-being; 5.) If it is determined that maintaining the participant in the study may lead to a conflict of interest or a breach of confidentiality; and 6.) Participant involvement will cease if the ethics review board or hospital administration suspends or terminates the study.

Data Analysis Procedure

Data analysis entailed using statistical and analytical techniques to extract meaningful information and conclusions from the data gathered. The data gathered from the questionnaire was analyzed using statistical methods to ascertain how factors influence antihypertensive medication adherence and medication adherence.

The study applied several statistical methods: (1) Descriptive statistics, including measures of central tendency, percentages, and frequency counts. (2) Data were organized into frequency tables and expressed as percentages, ordered from the smallest to the largest values. The overall average for the combined groups was calculated using a weighted mean. (3) The Pearson Product Moment Correlation Coefficient was used to assess relationships, with significance tested at the 0.05 level were used to determine whether factors significantly affect the hypertensive patients' non-adherence to medications. In addition, (4) The chi-square test of independence was applied to explore the relationship between categorical variables, enabling us to assess if there is a meaningful connection between patients' demographic factors, level of their non-adherence, and the various factors influencing their non-adherence.

Ethical Consideration

Research ethics govern the rules of conduct for research. Adhering to ethical standards protects the rights, dignity, and well-being of research participants. An ethics committee must review all studies involving participants to guarantee that ethical standards are upheld.



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This study, is an important research aspect of Medical-Surgical Nursing and underwent evaluation by the Palawan State University Board of Ethics Committee prior to receiving approval. Once approved by the ethics committee, the research proposal was submitted to the Graduate School Dean for permission to proceed. Additionally, approval was obtained from the medical directors via their respective ethics committees, as well as from the chief nurse of each participating hospital. The study strictly follows the ethical standards, ensuring that all collected data remained confidential throughout the research process. This involves making sure that research adheres to ethical standards, gaining participants' informed consent, and safeguarding their privacy. Consider logistical and resource constraints when planning the sampling design.

The researcher declared no conflict of interest related to this study. Nonetheless, if a conflict of interest emerges during the study, the ethics review board will be informed immediately, and the necessary steps will be taken to resolve it, such as a.) Ensuring transparency with participants about any affiliations and b.) Implementing oversight mechanisms to avoid bias in data collection or analysis.

A particular measure was taken to Protect Confidential and Private Data, such as a.) Paper-based questionnaires and consent forms have been kept in locked storage accessible only to the researcher; and b.) All participant data were de-identified by assigning unique codes instead of using personal identifiers such as names or medical record numbers. Only the researcher and, when needed, an authorized individual from the Palawan State University Research Ethics Review Committee (PSU RERC) relevant to the study will have access to the data, solely for the purpose of monitoring or auditing if necessary. Data will be safely stored for five years following the completion of the study under ethical guidelines. After the retention period, physical Electronic files will be permanently erased, and documents will be shredded using secure data-erasure software to ensure they cannot be recovered. By implementing these measures, the confidentiality and privacy of all participant data will be rigorously maintained. Every effort was made to keep the confidentiality and privacy of the data to the greatest extent permitted by law. However, please note that there are limitations to the investigator's ability to guarantee complete confidentiality, such as in cases of legal or regulatory requirements. The researcher is committed to following strict ethical standards and applicable laws, including the Data Privacy Act of 2012, to safeguard the participants' personal information.

In obtaining the participant's consent, the primary researcher thoroughly explained the content of the informed consent. Informed consent was obtained in a private and quiet area within the participating hospitals' outpatient department (OPD) to ensure confidentiality. The discussion occurred before the survey was administered during the participant's OPD visit, allowing enough time for participants to think over their choices and ask questions. The researcher provided a clear and thorough explanation of the study's goals, methods, possible risks, and benefits. Participants were urged to ask questions and clarify concerns before signing the consent form. Verbal confirmation of understanding will be sought before obtaining written consent. Consent will not be self-administered; it will involve active discussion between the researcher and the participant to ensure informed decision-making.

In this study, patient participants may be considered vulnerable due to their socio-economic status, health conditions, or possible emotional and psychological strain. 1.) If the participants have hypertension, they may be undergoing treatment for a serious medical condition, making them susceptible to physical or emotional distress during the study; 2.) Participants from rural communities may face challenges related to access to healthcare, low literacy, and limited resources, which could exacerbate their vulnerability to harm; and 3.) If the study involves sensitive health data (like their



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medication adherence or mental health status), participants might feel stigmatized, ashamed, or stressed, especially in a community-oriented setting. The following protections were performed: 1.) Informed Consent: Ensure participants fully understand the study's goals, dangers, and advantages before consenting to participate. Consent should be voluntary and documented; 2.) Confidentiality and Anonymity: Implement strong data protection protocols to keep participant information confidential, ensuring that personal identities and health information are not disclosed; 3.) Ethical Oversight: The study was reviewed and monitored by an ethics committee to ensure the well-being of participants; 4.) Support Systems: Provide adequate psychological and health support if participants experience stress, discomfort, or any health-related issues during the study; and 5.) Clear Communication: Throughout the study, communicate transparently about any risks and the ability to leave the study whenever you wish without facing any penalties or disadvantages.

The invitation of participants, overseeing the entire selection process and ensuring that participants meet the study's inclusion criteria and that ethical standards are maintained by the researcher itself. the participants were approached while they were in the waiting area of the outpatient department. The researcher discussed with a summary of the research, outlining its objectives and the possible advantages it may offer.

Anticipating that participants might feel stressed or anxious when talking about their health, especially regarding medication adherence, which could make them feel judged or guilty and that, knowledge of their adherence or non-adherence might be scrutinized which could cause emotional distress the researcher implemented some mitigation measures for possible risks during the study: a.) Communicated to participants that all data will remain private, and no specific person will be identified. Reassured participants can opt-out without facing any repercussions because participation is voluntary; b.) Provided participants with access to counseling or support services in case they experience emotional distress during or after the study. This may include providing information about local support resources or healthcare providers. c.) Ensured the researcher was trained in communication techniques that reduce stress or anxiety during the consent process and data collection. d.) being mindful of cultural dynamics that might influence social stigma. The researcher will use culturally appropriate methods of communication.

The direct benefits to participants in the study likely included personalized health assessments, increased awareness of the importance of medication adherence, and access to free or subsidized healthcare resources. Indirectly, participants may experience improved long-term health outcomes and contribute to their community's health literacy. On a societal level, the study will contribute valuable knowledge to the field of medication adherence and public health, potentially leading to improved healthcare interventions and policies that benefit broader populations, especially in rural or underserved communities. The benefits will likely have a lasting, positive impact on the individual participants and society.

This study did not offer honorarium for informant's participation. However, participants are greatly appreciated and will contribute to valuable research on determining the factors affecting non-adherence to antihypertensive medication treatment. While there is no financial compensation, respondents were expected to gain knowledge or resources related to health that could benefit the community. Participants were informed that they could cease to participate at any time when they had to.

Potential Impacts of the Study on the Community. The Positive Impacts could be: 1.) Enhancement in health literacy about medication non-adherence, fostering a culture of health within the community; 2.)



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Aligns with values emphasizing collective well-being; 3.) Encourages discussions on health among leaders and members; 4.) Inspires initiatives like health talks or group check-ups, enhancing communal ties. 5.) Provides participants with healthcare knowledge and resources they can share, potentially leading to partnerships with healthcare providers. The potential arises of negative impacts like stigma or misunderstanding, conflict with beliefs or interference with religious obligations, risk of misuse of information, and sharing personal health details within the community, which could lead to social consequences like labeling or exclusion. Strategies will be implemented to mitigate and protect the participants: a.) Ensure participants understand the study's potential impacts during informed consent; b.) Allow withdrawal if conflicts with beliefs arise; c.) Maintain strict privacy through anonymized data and restricted sharing. Ensure respectful and culturally aware interactions. Addressing these impacts is essential to respecting participants, minimizing risks while maximizing benefits, and ensuring voluntary, informed, and respectful participation.

CHAPTER IV

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter provides a thorough review of the statistical data gathered to answer the research questions posed in the study. It offers a clear presentation, careful analysis, and thoughtful interpretation of the results. Furthermore, the findings from the statistical tests are examined in detail and discussed comprehensively.

Respondents' Demographic Profile

Here are the tables presenting the breakdown of hypertensive patients attending outpatient clinics at three primary private hospitals in southern Palawan involved in this study. Information included key factors such as age, gender, education level, marital status, job status, and monthly income. The data are summarized using descriptive statistics, frequency counts, percentages, and rankings to clearly illustrate the findings.

Respondents Demographic Fromes in terms of Age						
Respondents' Age	Frequency (f)	Percentage (%)	Rank			
26 – 30 years old	2	1.30	7 th			
31 - 35 years old	11	7.30	6 th			
36-40 years old	20	13.20	2 nd			
41 - 45 years old	17	11.30	3 rd			
46-50 years old	16	10.60	4.5 th			
51 - 60 years old	16	10.60	4.5 th			
61 years old and above	39	25.80	1 st			
TOTAL	151	100.00				

 Table 4.1

 Respondents' Demographic Profiles in terms of Age

Table 4.1 illustrates the age distribution of Patients with hypertension who don't take their drugs as prescribed. Notably, the largest segment of nonadherent patients is aged 61 years and older, accounting for 25.8% of the total sample. Data show that Senior citizens have encountered specific challenges that



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affected their medication adherence. These challenges include memory problems, multiple medications, and complicated medication schedules that are common as people age. This supports Burnier et al. (2020), who have shown that non-adherence to antihypertensive medications tends to be higher in older patients due to factors like cognitive impairment and the presence of multiple comorbidities.

Analysis also revealed that the second largest group of nonadherent patients consists of individuals aged 36 to 40 years, representing 13.2% of respondents. This age group frequently encounters increased responsibilities related to work and family, leading to forgetfulness or prioritizing other life demands over taking medication treatment. This aligns with the findings of Abbas et al. (2020), who indicated that younger adults, particularly those in their late 30s, often exhibit higher non-adherence rates due to lifestyle factors and competing priorities.

Additionally, People aged between 41 and 45 years, as well as those between 46- and 50-years account for 11.3% and 10.6% of nonadherent patients, respectively. This trend indicates that non-adherence is a notable concern among middle-aged adults, who often encounter a distinct set of difficulties that may affect their ability to adhere to medication regimens. This stresses that middle-aged adults typically juggle multiple responsibilities, such as demanding careers, family obligations, and caregiving duties. These pressures can lead to time constraints and increased stress, making it difficult for individuals to prioritize their health.

This implies that nursing duties should emphasize the necessity of customized interventions to address antihypertensive medication non-adherence, especially in older persons who may experience cognitive decline and several comorbidities. Nurses should encourage medication reminders, employ ageappropriate teaching techniques, and, if required, engage caregivers. Nurses must evaluate lifestyle issues, offer flexible care plans, and emphasize the value of putting health first for individuals overburdened with job and family obligations. Nurses should also simplify prescription schedules, provide stress-reduction strategies, and establish supportive environments that promote consistent adherence since they understand the effects of stress and time constraints.

	Respondents Demographic rithines in terms of Sex						
R	lespondents' Sex	Frequency (f)	Percentage (%)	Rank			
	Male	83	55.00	1 st			
	Female	68	45.00	2^{nd}			
Т	OTAL	151	100.00				

Table 4.2
Respondents' Demographic Profiles in terms of Sex

Table 4.2 displays the demographic characteristics of hypertensive nonadherent patients in terms of sex. Based on the analysis, the results reveal that 55% of the respondents are male, whereas 45% are female. This distribution indicates a higher prevalence of non-adherence among male patients than their female counterparts. The findings suggest that sex may play a significant role in medication adherence, with males exhibiting a greater tendency toward non-adherence.

This trend may be the result of multiple factors. Research has consistently indicated that men are more prone to indulge in riskier health conducts and generally less inclined to seek medical advice or follow prescribed treatment plans compared to women. The findings of Rezaianzadeh et al. (2024) indicated that men are more prone to underestimate the importance of managing chronic conditions like



hypertension, which can lead to lower adherence rates. Additionally, the data also pinpoints that societal norms and expectations may influence men's health behaviors, potentially leading to a reluctance to prioritize medication adherence in the face of competing life demands.

This shows how crucial gender-sensitive interventions are for encouraging medication adherence, especially for male patients who often have greater non-adherence rates. Men are more likely to ignore risk of health hazard, look for consultations, and follow drug regimens, which nurses should be aware of. Nursing solutions should incorporate motivational techniques, counseling, and focused instruction to address these behavioral tendencies. In this demographic, adherence and health outcomes may be enhanced by promoting frequent follow-ups, building trust, and employing male-centered communication approaches.

	The point of the p						
Respondents' Education Level		Frequency (f)	Percentage (%)	Rank			
	Elementary Graduate	34	22.50	3 rd			
	High School Graduate	40	26.50	2 nd			
	Bachelor's Degree	60	39.70	1 st			
	Diploma / Certificate Course	14	9.30	4 th			
	Master's Degree	2	1.30	5 th			
	Doctorate Degree	1	0.70	6 th			
Τ	OTAL	151	100.00				

Table 4.3Respondents' Demographic Profiles in terms of Educational Attainment

Table 4.3 illustrates the demographic profiles of nonadherent hypertensive patients classified by their educational attainment. The data indicates that the most substantial segment of respondents, comprising 39.7%, holds a Bachelor's degree, highlighting a significant presence of individuals with higher education among the nonadherent population. Following this group, 26.5% of respondents are high school graduates, while 22.5% have completed elementary education. The remaining categories include diploma or certificate courses at 9.3%, master's degrees at 1.3%, and doctorate at 0.7%.

This distribution suggests that a noteworthy proportion of nonadherent hypertensive patients possess at least a high school education, with a considerable number holding Bachelor's degrees. The presence of such a substantial group of individuals with Bachelor's degrees among the nonadherent patients indicates that educational attainment alone does not guarantee a higher level of medication adherence. This phenomenon may be influenced by various factors, including lifestyle choices, time constraints due to professional responsibilities, and personal beliefs about health management.

Research supports the notion that while education is critical in shaping health behaviors, it is not the sole determinant of adherence. Suh et al. (2021) have found that People with less formal education often find it difficult to grasp complex health information, which may result in them not following medical guidance properly. However, even among those with higher education, competing demands such as work pressures and family obligations can interfere with consistent medication use. The study's findings of Rezaianzadeh et al. (2024) highlighted major complexities of adherence behaviors across different educational levels, emphasizing that personal circumstances and social support systems significantly impact health management.



Nurses must consider more than just a patient's formal education when evaluating adherence risks. They should adopt an all-encompassing approach that considers socioeconomic situation, social networks, personal views, and health literacy. Regardless of a patient's educational background, adherence can be promoted, and gaps can be filled with tailored health education and clear communication using basic, culturally appropriate language.

	Respondents Demographic Fromes in terms of Maritan Status					
Respondents' Marital Status		Frequency (f)	Percentage (%)	Rank		
	Single	19	12.60	2 nd		
	Married	117	77.50	1 st		
	Widowed	15	9.90	3 rd		
]	OTAL	151	100.00			

Table 4.4 Respondents' Demographic Profiles in terms of Marital Status

Table 4.4 examines the demographic profiles of nonadherent hypertensive patients categorized by marital status. The data reveals that most respondents, comprising 77.5%, are married, 12.6% single, and 9.9% widowed. This distribution indicates that marital status may play a significant role in medication adherence, with married individuals representing the largest group among those who are nonadherent. Conversely, the data indicate that single and widowed individuals represent a smaller proportion of the nonadherent group. This could suggest that those who are single may have fewer competing responsibilities, allowing them to focus more on their health management.

Research suggests that marital status can significantly impact health outcomes, including medication adherence. Married individuals often benefit from social support, which can enhance their motivation to adhere to treatment regimens. However, marital stress or conflict could also lead to neglect of health management, potentially contributing to non-adherence. This coincides with Laugesen et al. (2016), who underscored that individuals in strained relationships may prioritize their partner's needs over their health, leading to inconsistent medication use.

These imply that single people might have greater freedom and fewer obligations to their families, enabling them to prioritize their health and prescription regimens. When evaluating adherence habits, nurses should consider marital status because married people may have conflicting expectations that make it difficult for them to take their medications consistently. Customized interventions, such as personalized counseling and support networks, can address these variations, enhancing patient outcomes and adherence.

	Respondents' Demographic Profiles in terms of Employment Status						
Respondents' EmploymentFrequency (f)Percentage (%)				Rank			
	Employed	76	50.30	1 st			
	Unemployed	46	30.50	2 nd			
	Retired	29	19.20	3 rd			
Т	OTAL	151	100.00				

Table 4.5



The distribution of the demographic profile is displayed in Table 4.5 of nonadherent hypertensive patients grouped by employment status. The data indicates that 50.3% of respondents are employed, making this group the largest among the participants. This finding implies that employed individuals may face unique stressors and time constraints that could hinder their adherence to medication regimens. Following this, 30.5% are unemployed, and 19.2% are retired.

Analysis reveals that the predominance of employed individuals in the nonadherent category suggests that work-related factors may influence health behaviors. This highlights that employed patients often face various pressures, including long working hours, job stress, and the demands of balancing work and personal life, which can detract from their ability to adhere to medication regimens consistently. This finding is consistent with Li (2024), whose study has shown that employed individuals may experience higher levels of stress and less time for self-care, which can negatively impact their treatment adherence. Due to work responsibilities, employed people frequently face severe pressures and time constraints, making it difficult to follow their prescribed medication schedules. This emphasizes how crucial it is for nurses to evaluate patients' occupational characteristics when providing medication counseling and health education. To promote adherence, nursing interventions should use adaptable, patient-centered techniques, including streamlined dosage schedules, mobile reminders, or cooperation with occupational health services. To improve working patients' health outcomes, nurses can also support workplace health promotion initiatives that manage chronic diseases.

	Respondents Demographic riones in terms of Gross Montiny medine						
Respondents' Income		Frequency (f)Percentage (%)		Rank			
	P10,000.00 and below	31	20.50	3 rd			
	P10,001.00 - P20,000.00	42	27.80	1 st			
	P20,001.00 - P30,000.00	40	26.50	2 nd			
	P30,001.00 - P40,000.00	25	16.60	4 th			
	P40,001.00 and above	13	8.60	5 th			
Т	OTAL	151	100.00				

 Table 4.6

 Respondents' Demographic Profiles in terms of Gross Monthly Income

Table 4.6 presents the distribution of nonadherent hypertensive patients categorized by gross monthly income. The data reveals that 27.8% of respondents fall within the income range of P10,001.00 to P20,000.00, making this the largest group among the participants. This data suggests that individuals in this income bracket may face financial constraints that hinder their ability to afford medications and healthcare services, leading to higher rates of non-adherence. The data also revealed that 26.5% of respondents earn between P20,001.00 and P30,000.00. This indicates that while they may have slightly more financial flexibility, they could still encounter barriers to adherence, particularly if unexpected expenses arise.

Meanwhile, results also reveal that 20.5% of respondents earn P10,000.00 and below, which reflects a significant portion of the population that may struggle with basic needs. This implies that individuals in this income bracket would most likely prioritize immediate financial responsibilities over healthcare, resulting in non-adherence to medications.



The findings above corroborate with Chandler et al. (2021), who argued that individuals with lower socioeconomic status often face barriers such as inadequate health literacy, limited access to healthcare services, and higher levels of stress, all of which can negatively impact their ability to adhere to treatment regimens. This finding aligns with studies showing that financial constraints significantly predict medication non-adherence, as patients may prioritize other essential expenses over their health needs (Konlan & Shin, 2023).

Given that financial limitations can substantially impact medication adherence, nursing implications emphasize the necessity for focused interventions among people with limited to moderate incomes. In addition to evaluating patients' socioeconomic position and investigating affordable treatment choices, nurses should also educate patients about the value of adherence. To support sustained treatment adherence, nurses must advocate for access to affordable medications, refer patients to assistance programs, and include financial counseling in patient care plans. Even those with slightly greater financial flexibility may struggle with adherence during unexpected financial burdens.

Respondents' Level of Nonadherence to Antihypertensive Medications

Table 4.7 examines the extent of non-adherence to antihypertensive medications among the respondents. To provide a thorough picture of the non-adherence levels among hypertension patients, a variety of descriptive statistics were used, such as frequency counts, percentages, and mean ratings. These measures quantify how often patients fail to follow their prescribed medication regimens, thereby giving a more comprehensive view of the difficulties this population faces in managing their hypertension.

	Respondents Level of Ronauner ence to Rintingper tensive metaleutons							
L	evel of Nonadherence	Frequency (f)	Percentage (%)	Mean				
	Very High	15	9.93					
	High	25	16.56	3.28				
	Moderate	67	44.37	(Moderate Level of Nonadher-				
	Low	32	21.19	ence)				
	Very Low	12	7.95	, í				
Т	OTAL	151	10.00					

 Table 4.7

 Respondents' Level of Nonadherence to Antihypertensive Medications

Legend for Mean: Very Low: 1.00 - 1.79; *Low:* 1.80 - 2.59; *Moderate:* 2.60 - 3.39; *High:* 3.40 - 4.19; *Very High:* 4.20 - 5.00

Table 4.7 presents a detailed examination of the extent to which participants did not adhere to their prescribed antihypertensive treatments. The end results reveal that a significant 44.37% of patients exhibit moderate levels of non-adherence, with 67 respondents categorized in this group. This degree of non-adherence is particularly alarming as it can lead to inadequate control of hypertension. When blood pressure is not effectively managed, the possibility of severe cardiovascular events, like strokes and heart attacks, escalates dramatically. This connection underscores the critical need for healthcare providers to address adherence issues, as even moderate non-adherence can have severe long-term health implications.



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Furthermore, data indicate that 16.56% of respondents fall into the high non-adherence category, while 9.93% are classified as very high non-adherence. Together, these two groups represent over 26% of the patients who are at a significantly increased risk of failing to manage their hypertension effectively. This trend is troubling, as individuals in the high and very high non-adherence categories are likely to encounter worsening health conditions, leading to more frequent hospitalizations and increased healthcare costs. High levels of non-adherence can undermine treatment efforts, complicate clinical management, and ultimately diminish the efficacy of healthcare interventions.

In contrast, 21.19 percent of patients demonstrate low non-adherence, while only 7.95% exhibit very low non-adherence. This suggests that a relatively small minority of respondents diligently adhere to their medication regimens, which may result in better health outcomes for these individuals. Patients who consistently follow their prescribed treatments are more likely to achieve optimal blood pressure control and experience fewer complications associated with hypertension.

Moreover, the mean rating of 3.28 indicates a generally moderate level of non-adherence to antihypertensive medications among the respondents. This statistic reflects that many patients are not consistently following their prescribed medication regimens, which can stem from various factors. The moderate level of non-adherence suggests that patients may be encountering barriers that prevent them from taking their medications as directed. These barriers could include medication side effects, complex dosing schedules, a lack of understanding of the importance of adherence, or financial constraints that limit access to medications.

Findings here align with those of Abbas et al. (2020), who reported that a significant majority of hypertensive patients demonstrated moderate levels of non-adherence to their prescribed antihypertensive medications. This observation highlights a concerning trend among patients with hypertension, indicating that many individuals struggle to adhere to their treatment regimens effectively. Similarly, Rashid et al. (2024) emphasized that a considerable number of patients face a heightened risk of adverse health outcomes as a direct result of their non-adherence to medication. This correlation between non-adherence and poor health outcomes reinforces the critical importance of addressing the barriers that prevent patients from following their prescribed treatments. The implications of these studies suggest that healthcare providers such as nurses must prioritize strategies to improve adherence, as the impact of noncompliance can lead to significant complications, including uncontrolled hypertension and increased susceptibility to cardiovascular events.

Factors Affecting the Hypertensive Patients' Nonadherence to Medications

Table 4.8 explores the correlational analyses of the factors affecting patients' possible non-adherence to medication such as the following: (a) social/economic, (b) patient-related, (c) therapy-related, (d) condition-related, and (e) healthcare system. Additionally, Correlation coefficient for Pearson Product Moment was employed and tested at a 0.05 significance level to test whether the factors significantly affect hypertensive patients' non-adherence to medications.

	r	Fable 4	4.8			
Fa	ctors Affecting the Hyp	oertens	ive Pat	ients'	Nonadhe	rence Levels

Factors	r	Descriptor	p-value	Interpretation
Social / Economic	0.82		0.008**	Significant
Patient-Related	0.63		0.009**	Significant



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Therapy-Related 0.58	0.004**	Significant
Condition-Related 0.43	0.013**	Significant
Healthcare System 0.41	0.025*	Significant

Legend for r: $\pm 0.00-0.19 - Very$ Low Correlation; $\pm 0.20-0.39 - Low$ Correlation; $\pm 0.40-0.59 - Moderate$ Correlation; $\pm 0.60-0.79 - High$ Correlation; $\pm 0.80-1.00 - Very$ High Correlation **Legend for p-value:** **Significant at 0.05 level of significance

Table 4.8 analyses factors influencing non-adherence among hypertensive patients, including their correlation coefficients and significance levels. The analysis shows that social and economic factors exhibit a very high correlation (r = 0.82, $p = 0.008^{**}$), indicating that socioeconomic circumstances significantly affect patients' ability to adhere to their medication regimens. This data pinpoints that income level, employment status, and social support networks are crucial in determining access to medications and healthcare resources. This suggests that patients facing socioeconomic challenges may struggle to afford their medications or might prioritize financial commitments over their health. Interestingly, the lack of employment can severely influence adherence, patients who are unemployed may face financial challenges that make it hard to pay for medications or prioritize healthcare costs ahead of more urgent financial needs. This situation can lead to a choice between essential needs and medication, resulting in compromised adherence. Supporting this, Gwadry-Sridhar et al. (2019) found that lower socioeconomic status correlates strongly with worse medication adherence, highlighting the need for targeted interventions.

Likewise, patient-related factors correlate highly (r = 0.63, $p = 0.009^{**}$) with non-adherence, reflecting individual characteristics such as health literacy, motivation, and psychological factors. The analysis depicts that patients with low health literacy may not fully grasp their treatment plans, leading to inconsistent medication use. Therefore, healthcare providers should enhance patient education and communication helping individuals engage proactively in their treatment process. Tailored counseling and access to educational materials have been shown to enhance both comprehension and medication adherence. A study by McHorney et al. (2021) reported that individuals with greater health literacy were more likely to follow their prescribed antihypertensive treatment plans. Patient adherence to a treatment plan is heavily influenced by their level of motivation. Motivated people are more likely to understand the importance of taking prescription drugs regularly and the possible repercussions of non-adherence.

However, there is a moderate correlation between therapy-related factors (r = 0.58, $p = 0.004^{**}$), indicating that treatment-related factors, including the length of therapy, side effects, and complexity of the medication regimen, significantly impact adherence levels. Patients may struggle with complicated regimens or discontinue medications due to adverse effects. This stresses that simplifying medication regimens and utilizing combination therapies can enhance adherence, and regular assessments and adjustments based on patient feedback can also be beneficial. A research study conducted by DiMatteo (2018) supports this, indicating that simplified regimens increase adherence. The analysis also revealed that the potential side effects significantly impact adherence levels. This emphasizes that patients often experience a several of unfavorable effects from antihypertensive medications, such as lightheadedness, tiredness, and stomach-related issues. When these side effects are perceived as severe or disruptive, patients may become disappointed with their treatment, leading to inconsistent medication use or outright discontinuation. This perception can create a psychological barrier, where the fear of adverse effects outweighs the perceived benefits of managing hypertension. Hence, patients may begin to skip



doses or stop taking their medications altogether to avoid these unpleasant experiences, ultimately undermining their treatment efficacy.

Moreover, condition-related factors show a moderate correlation (r = 0.43, $p = 0.013^{**}$), reflecting that the nature and severity of the condition can impact adherence levels. Individuals with persistent or more severe symptoms may feel overwhelmed, leading to inconsistent medication use. Thus, healthcare providers should consider the psychological burden of chronic conditions when discussing treatment options. Offering access to mental health support or peer groups can improve how patients cope with and manage their conditions. Gellad et al. (2020) discovered that individuals with more severe cases of hypertension were markedly less likely to follow their prescribed treatment plans, highlighting the importance of implementing thorough and effective management approaches. In addition, the analysis also shows how societal stigma about having hypertension can affect patients' willingness to adhere to their medication regimens. This reflects that patients may feel embarrassed or ashamed about their condition, which creates a barrier to seeking help or adhering to prescribed treatments, as patients might avoid taking medications in public or neglect to refill prescriptions out of fear of judgment.

Lastly, healthcare system factors demonstrate a moderate correlation (r = 0.41, $p = 0.025^*$), indicating that the structure and accessibility of the healthcare system significantly impact non-adherence. Barriers such as long wait times, lack of follow-up, and inadequate provider-patient communication can discourage adherence. Improving healthcare access, enhancing provider training on patient communication, and establishing efficient follow-up systems are crucial for improving adherence rates. A study by Horne et al. (2019) found that better patient-clinician communication and follow-up systems contribute to higher medication adherence, underscoring the healthcare system's role in patient compliance.

Nurses need to understand that socioeconomic obstacles, such as financial strain and unemployment, have a significant influence on patients' capacity to take their antihypertensive drugs as prescribed. Psychological issues, like fear of side effects and social stigma, can deter continuous use, and low health literacy can make it even harder to understand treatment regimens. Motivated patients are likelier to stick with their treatment plans, highlighting the value of individualized instruction and motivational techniques. Additionally, nurses should promote candid, nonjudgmental communication, handle side effects quickly, and simplify complicated regimens. Better adherence results can be supported by enhancing healthcare access through shorter wait times and regular follow-up.

Relationship Between the Respondents' Demographic Profiles and the Level of their Nonadherence to Medications

Table 4.9 presents a detailed examination of how demographic characteristics of individuals with hypertension relate to their levels of medication non-adherence. To assess this association, the Chi-square test of independence was applied. This test is well-suited for analyzing links between categorical variables and was used to explore whether factors such as age, gender, level of education, marital status, employment status, and monthly income have a significant connection to how consistently patients follow their prescribed antihypertensive treatment.

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Relationship between Fromes and Levels of Nonaunerence to Medications					
Profile	p-value	Interpretation			
Age	0.0004**	Significant			
Sex	0.0028**	Significant			
Civil Status	0.0692	Not Significant			
Educational Attainment	0.1737	Not Significant			
Employment Status	0.0035**	Significant			
Monthly Income	0.0016**	Significant			

Table 4.9 elationship Between Profiles and Levels of Nonadherence to Medications

Legend for p-value: **Significant at 0.05 level of significance

Table 4.9 examines how the demographic characteristics of individuals with hypertension relate to their patterns of not adhering to prescribed medications. The analysis reveals significant associations for age, sex, employment status, and monthly income, while civil status and educational attainment do not correlate significantly with non-adherence.

A p-value of 0.0004, suggest that age has a significant relationship with non-adherence. This implies that adherence to medication regimens may vary considerably with age. This shows that older patients may face health literacy or cognitive decline challenges, while younger patients might overlook adherence due to lifestyle factors or a sense of invulnerability. This suggests a need for tailored interventions, such as simplifying regimens for older adults or enhancing motivational strategies for younger ones, which could improve adherence. The result of this study corroborates with the study of Sokol et al. (2025), who found that older adults often struggle with adherence due to polypharmacy and cognitive issues.

The analysis of the relationship between sex and levels of non-adherence reveals significant insights into how gender influences health behaviors and medication adherence. With a p-value of 0.0028, this finding highlights a noteworthy association, indicating that men and women often approach their health management differently. This suggests that men are less likely to engage in proactive health-seeking behaviors. This reluctance can stem from cultural norms that discourage men from expressing vulnerability or seeking help for health issues. As a result, men may neglect regular check-ups and underestimate the importance of adhering to prescribed medications. Conversely, women often navigate additional responsibilities, such as caregiving roles, which can complicate their ability to manage their health. The demands of balancing family, work, and personal health can lead to time constraints and increased stress, potentially impacting their adherence to medication regimens. While women may generally show higher rates of adherence compared to men, the added pressures they face can create barriers that lead to lapses in medication-taking behaviors. Supporting this perspective, Gellad et al. (2021) found that men frequently exhibit lower adherence rates than women, reinforcing the need for gender-sensitive approaches in healthcare.

Likewise, the analysis also reveals a significant association between employment status and level of non-adherence among hypertensive patients to take their medications, as indicated by a p-value of 0.0035. This result implied that employed individuals often encounter various obstacles that may hinder their capacity to adhere to medication regimens. This data underscores that time constraints are a primary issue since balancing work responsibilities with health management can be daunting. Many employed patients may struggle to find the time to take medications consistently, especially if their work schedules are demanding or irregular. This can lead to missed doses and ultimately affect their overall



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treatment efficacy. Moreover, the stress associated with employment can further complicate adherence. Employed individuals frequently experience high levels of stress due to job demands, which can distract them from focusing on health-related tasks, including taking their medications as prescribed. Conversely, unemployed individuals may grapple with financial barriers that significantly affect their access to drugs. They may struggle to afford prescriptions without a steady income, resulting in limited access to essential treatments. This financial hardship may result in a vicious cycle of non-adherence, whereby the inability to pay for medications exacerbates existing health conditions. This validates the study of Horne et al. (2019), who found that employment status significantly influences adherence, with employed individuals often dealing with higher stress levels.

Similarly, the p-value for monthly income is 0.0016, indicates a significant relationship with nonadherence. Patients with lower incomes may find it difficult to afford medications, leading to higher rates of non-adherence due to financial stress and prioritization of essential needs over health expenses. Gwadry-Sridhar et al. (2019) corroborate this by noting a robust association between individuals with lower socioeconomic status and worse medication adherence.

Alternatively, the p-value for civil status is 0.0692, implying there is no statistically significant link between a person's marital status and their likelihood of not following prescribed medication. This means that being single, married, or divorced does not appear to meaningfully influence adherence behavior. While civil status may not directly influence adherence, healthcare providers should consider the social support available to patients, as it can affect overall health management. DiMatteo et al. (2017) emphasize that fostering supportive environments is essential for all patients, regardless of marital status.

Furthermore, educational attainment has a p-value of 0.1737, indicating no significant relationship with medication non-adherence. This finding suggests that higher education does not necessarily equate to better adherence, as health literacy and the ability to apply knowledge effectively may be more critical. Thus, healthcare providers should focus on enhancing health literacy for all patients, as highlighted by McHorney et al. (2021), who found that effective communication strategies are vital for improving adherence.

Nursing implications emphasize the necessity of tailored patient education and support plans that tackle various adherence issues. Younger adults may benefit from motivational counseling focusing on long-term health hazards, while older patients may need simplified instructions and cognitive support. Given that men may require specific encouragement to engage in health-seeking activities, nurses should be aware of gender variations. While low-income patients can benefit from cost-effective treatment regimens and financial counseling, employed individuals should be provided with time management support and flexible drug schedules. Nurses should concentrate on individual motivation and support networks since marital status may not impact adherence. Lastly, nurses must evaluate and improve each patient's health literacy and practical application of knowledge, adjusting interventions accordingly, as increased education does not ensure improved adherence.

Relationship between the Patients' Profiles and the Factors Affecting their Nonadherence to Antihypertensive Medication Treatment

Table 4.10 presents a detailed analysis of how demographic characteristics of patients with hypertension are associated with different factors contributing to their non-compliance with antihypertensive treatment. The Chi-square test of independence was applied to assess whether significant associations



exist between the categorical variables involved. The analysis is conducted at a significance threshold of 0.05, meaning that any p-value below this threshold indicates a statistically significant relationship.

Relationship Between Profiles and Factors Affecting Nonadherence to Medications					
Profiles	Factors				
	Social /	Patient-	Therapy-	Condition-	Healthcare
	Economic	Related	Related	Related	System
Age	0.0034**	0.0028**	0.0015**	0.0173**	0.0032**
Sex	0.0018**	0.0283**	0.0316**	0.0261**	0.0316**
Civil Status	0.1275	0.1742	0.3092	0.1762	0.0812
Educational Attainment	0.0016**	0.0021**	0.0163**	0.2981	0.0728
Employment Status	0.0003**	0.0021**	0.0071**	0.0005**	0.0037**
Monthly Income	0.0003**	0.0001**	0.0046**	0.0074**	0.0002**

Table 4.10

Legend for p-value: **Significant at 0.05 level of significance

Table 4.10 presents a detailed examination of how various characteristics of hypertensive patients are linked to factors contributing to their non-compliance with prescribed medications. In terms of age, the study indicates significant associations across multiple factors, with p-values of 0.0034 for social/economic factors, 0.0028 for patient-related factors, 0.0015 for therapy-related factors, 0.0173 for condition-related factors, and 0.0032 for healthcare system factors. These results suggest that older patients face distinct challenges that can hinder their medication adherence, such as cognitive decline, the complexities of managing multiple medications, and difficulties in navigating the healthcare system. This analysis highlights that tailoring interventions to this demographic by simplifying medication regimens and providing enhanced support can significantly improve patient's ability to adhere to treatment. Similar outcomes were observed in the study conducted by Sokol et al. (2020), emphasizing that older adults often require additional assistance in managing their medications effectively due to these challenges.

Likewise, regarding sex, the findings reveal significant associations for several factors, with p-values of 0.0018 for social/economic factors, 0.0283 for patient-related factors, 0.0316 for therapy-related factors, 0.0261 for condition-related factors, and 0.0316 for healthcare system factors. This indicates that men and women may encounter barriers to adherence shaped by their gender roles and responsibilities. Men typically demonstrate lower engagement in health-seeking behaviors, while women often juggle caregiving responsibilities that complicate their health management. This is similar to Gellad et al. (2021), who found that such gender differences significantly impact medication adherence.

Furthermore, the analysis of educational attainment shows significant associations with p-values of 0.0016 for social/economic factors, 0.0021 for patient-related factors, and 0.0163 for therapy-related factors. According to these results, patients with lower education levels may struggle with health literacy, which affects their understanding of medication regimens and the importance of adherence.



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Enhancing health literacy through targeted educational programs can improve adherence rates. McHorney et al. (2021) highlight the essential role of effective communication in ensuring that patients of varying academic backgrounds can better manage their health.

In terms of employment status, the data reveals strong correlations with non-adherence, demonstrated by p-values of 0.0003 for social/economic factors, 0.0021 for patient-related factors, 0.0071 for therapy-related factors, 0.0005 for condition-related factors, and 0.0037 for healthcare system factors. This pinpoints that employed individuals often face time constraints and stress that impede their capacity to manage medications effectively. Conversely, unemployed patients may encounter financial barriers restricting their access to necessary treatments. Implementing targeted interventions, such as flexible medication schedules, could be beneficial. Horne et al. (2019) support this perspective, highlighting how employment status significantly influences adherence due to associated stress and constraints.

Similarly, the monthly income also shows significant relationships, with p-values of 0.0003 for social/economic factors, 0.0001 for patient-related factors, 0.0046 for therapy-related factors, 0.0074 for condition-related factors, and 0.0002 for healthcare system factors. These findings indicate that patients with lower incomes may struggle to afford medications, leading to higher rates of non-adherence. This parallels Gwadry-Sridhar et al. (2019), who emphasized that there is a strong correlation between lower socioeconomic status and poorer medication adherence, indicating the urgent need for targeted interventions to support these patients.

Conversely, the analysis of civil status about the factors influencing non-adherence to antihypertensive medications reveals that, unlike other demographic profiles, civil status does not show significant associations with the factors examined, as indicated by their p-values. This lack of significant correlation suggests that civil status—whether a patient is single, married, divorced, or widowed—may not play a crucial role in influencing their adherence to medication regimens. However, it is essential to consider that while civil status may not directly correlate with non-adherence, it may still have indirect effects. For instance, married individuals may have a partner who provides emotional and practical support, potentially aiding adherence. Conversely, single or divorced individuals might experience more isolation, which could affect their health management.

This implies that nursing responsibilities must focus on medication adherence, which needs to be adjusted to the many sociodemographic variables affecting patients' habits. Simplified medication schedules and improved assistance are necessary for older persons to overcome cognitive and system navigation difficulties. Gender-sensitive approaches should realize that women may benefit from support that recognizes their caregiving roles, while men may require encouragement to seek care. Additionally, nurses must use focused, easily accessible instructional initiatives to address low health literacy, particularly in patients with little educational background. Time-efficient adherence plans and stress-reduction strategies are essential for working people. At the same time, financial counseling and access programs can help patients who are unemployed or have low incomes and face financial obstacles. Lastly, civil status should be considered in psychological evaluations, even though it is not a direct predictor, as it may impact routine adherence patterns and emotional support.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents a summary of the results, offers conclusions based on the research, suggests areas for further study, and outlines a strategy for sharing the findings.



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This research aimed to determine the factors influencing non-adherence with antihypertensive medication among adult patients attending the outpatient department of three primary-level private hospitals in southern Palawan. Specifically, it focused on factors such as (a) social/economic, (b) patient-related, (c) therapy-related, (d) condition-related, and (e) healthcare system. It also explored how the participants' demographic information—such as age, gender, marital status, educational attainment, monthly earnings, and employment status—and their levels of non-adherence to medications.

The analysis is predicated on responses from 151 purposefully selected hypertensive patients who visited the outpatient departments of three selected primary-level private hospitals in southern Palawan, including Rio Tuba Nickel Foundation Incorporated Hospital, Leoncio General Hospital, and Sagrado Hospital. The participants filled out a questionnaire created by the researcher, which was organized into two parts. The initial section gathered information on the participants' demographic details, and the following section consisted of a 50-item Likert scale addressing various elements affecting non-adherence derived from the World Health Organization (WHO).

Descriptive statistics including frequencies, percentages, and rankings was employed to characterize the participants' sociodemographic traits in order to address the research issues. To determine the degree of medication non-adherence among hypertension patients, average scores were calculated. Additionally, to determine which factors significantly influenced the degrees of non-adherence, the Pearson Product-Moment Correlation was used. The relationship between the demographic characteristics of the patients and their level of non-adherence to antihypertensive therapy was also investigated using the Chi-square test of independence. A significance level of 0.05 was applied to all inferential tests.

Summary of Findings.

Respondents' Demographic Profiles

- Age Distribution of Nonadherent Patients: The analysis reveals that the largest segment of nonadherent hypertensive patients is 61 years and older, accounting for 25.8% of the sample. This finding highlights that older adults may face specific challenges, such as memory issues and polypharmacy, which affect their adherence to medication regimens. Additionally, the second largest group comprises individuals aged 36 to 40, representing 13.2%. This age group often deals with increased work and family responsibilities, which may lead to forgetfulness regarding medication.
- Sex Distribution of Nonadherent Patients: The demographic analysis by sex shows that 55% of nonadherent patients are male, compared to 45% female. This higher prevalence among men suggests that sex may significantly influence medication adherence, with males exhibiting a greater tendency toward non-adherence. Factors contributing to this trend include men's inclination toward riskier health behaviors and a general reluctance to follow treatment plans or consult a doctor.
- Educational Attainment of Nonadherent Patients: The educational attainment profile shows that 39.7% of nonadherent patients hold a Bachelor's degree, indicating a significant presence of individuals with higher education among the nonadherent population. Following this group, 26.5% are high school graduates, and 22.5% have completed elementary education.
- Marital Status of Nonadherent Patients: The marriage status analysis reveals that 77.5% of nonadherent patients are married, while 12.6% are single and 9.9% are widowed. This suggests that marital status significantly influences medication adherence, as married individuals may benefit from social support that enhances their motivation to adhere to treatment. However, marital stress or conflict can lead to neglect of health management, contributing to non-adherence.



- Employment Status of Nonadherent Patients: The employment status distribution indicates that 50.3% of respondents are employed, making this the largest group among the participants. This finding suggests that employed individuals may experience unique stressors and time constraints that hinder their ability to adhere to medication regimens.
- Income Distribution of Nonadherent Patients: The analysis of gross monthly income shows that 27.8% of respondents earn between P10,001.00 and P20,000.00, indicating that financial constraints may hinder their ability to afford medications. Additionally, 26.5% earn between P20,001.00 and P30,000.00, suggesting that while they may have more financial flexibility, they still face barriers to adherence. Furthermore, 20.5% earn P10,000.00 or less, reflecting a significant portion that may prioritize immediate financial responsibilities over healthcare needs.

Respondents' Level of Nonadherence to Antihypertensive Medications

- Moderate Levels of Nonadherence: The analysis reveals that 44.37% of patients exhibit moderate levels of non-adherence to antihypertensive medications, with 67 respondents falling into this category. This level of non-adherence is concerning, as it can lead to inadequate blood pressure control. When hypertension is not effectively managed, the possibility cardiovascular events and strokes, significantly increases.
- **High and Very High Nonadherence:** Additionally, data show that 16.56% of respondents fall into the high non-adherence category, while 9.93% are classified as very high non-adherence. Together, these groups represent over 26% of patients at a heightened risk of failing to manage their hypertension effectively. This trend is alarming, as individuals categorized as high or very high nonadherent are likely to experience worsening health conditions, leading to more frequent hospitalizations and higher expenses for healthcare. High degree of not following the prescribed treatment complicate clinical management and diminish the overall efficacy of healthcare interventions.
- Low and Very Low Nonadherence: In contrast, 21.19% of patients demonstrate low non-adherence and only 7.95% exhibit very low non-adherence. This indicates that a relatively small minority of respondents consistently adhere to their medication regimens, which may improve health outcomes. Patients who diligently follow their prescribed treatments are more likely to achieve optimal blood pressure control and experience fewer complications associated with hypertension.
- Mean Rating of Nonadherence: The mean rating of 3.28 reflects a generally moderate level of nonadherence among the respondents. This statistic suggests that many patients are not consistently following their prescribed medication regimens, likely due to various barriers. These barriers may include medication side effects, complex dosing schedules, a lack of understanding regarding the importance of adherence, or financial constraints that limit access to medications.

Factors Affecting the Hypertensive Patients' Nonadherence to Medications

• Social and Economic Factors: The analysis reveals a very high correlation (r = 0.82, p = 0.008) between social and economic factors and non-adherence to antihypertensive medications. This indicates that socioeconomic conditions, including income level, employment status, and social support networks, significantly affect The capacity of patients to follow their prescription schedules. Patients facing socioeconomic challenges often struggle to afford medications or may prioritize financial obligations over their health. The lack of employment can exacerbate this issue, as financial strain makes it difficult to invest in health-related expenses.



- **Patient-Related Factors:** A high correlation (r = 0.63, p = 0.009) exists between patient-related factors and non-adherence, reflecting individual characteristics such as health literacy, motivation, and psychological factors. Low health literacy patients might not fully comprehend their treatment plans, leading to inconsistent medication use. On the other hand, motivated patients are more likely to follow their treatment regimens since they understand the significance of taking their medications consistently and the negative effects of not doing so.
- Therapy-Related Factors: Therapy-related factors show a moderate correlation (r = 0.58, p = 0.004), indicating that aspects of the treatment, such as regimen complexity, side effects, and therapy duration, significantly influence adherence. Complicated medication regimens or adverse effects can lead to medication discontinuation. Additionally, side effects, including dizziness and fatigue, can create psychological barriers that prompt patients to skip doses or stop taking medications altogether, thereby undermining treatment efficacy.
- **Condition-Related Factors:** The analysis indicates a moderate correlation (r = 0.43, p = 0.013) between condition-related factors and non-adherence. The severity of a patient's condition can impact their adherence levels, as those with more severe symptoms may feel overwhelmed and struggle to maintain consistent medication use.
- Healthcare System Factors: Healthcare system factors demonstrate a moderate correlation (r = 0.41, p = 0.025) with non-adherence, indicating that the structure and accessibility of the healthcare system significantly affect medication adherence. Barriers such as long wait times, inadequate follow-up, and poor provider-patient communication can discourage patients from adhering to their treatment regimens.

Overall, the study found the following:

- Age and medication use are significantly correlated. Older patients may struggle with cognitive decline, while younger patients may overlook adherence due to lifestyle factors.
- A significant association exists between sex and non-adherence. Men are less likely to engage in proactive health behaviors, impacting their adherence. While generally more adherent, women face additional responsibilities that complicate health management.
- Employment status significantly affects nonadherence. Employed individuals often have time constraints and stress that hinder adherence, while unemployed patients may face financial barriers.
- A substantial correlation exists between monthly income and non-adherence. Lower-income patients struggle to afford medications, leading to higher non-adherence rates.
- Civil status shows no significant relationship with non-adherence. While marital status may not directly impact adherence, social support can influence health management. Providers should consider the social support systems available to patients.
- No meaningful correlation has been found between educational attainment and non-adherence. Higher education does not guarantee better adherence. The focus should be on improving health literacy for all patients through effective communication strategies.

Conclusion

The following conclusion was drawn from this analysis in order to clarify the previously mentioned findings:

The findings that non-adherence to antihypertensive medication in southern Palawan is moderately prevalent and strongly influenced by socioeconomic and patient-related barriers. Demographic factors such



as age, sex, employment, and income significantly affect adherence behaviors. The findings highlight the need for context-specific interventions that address financial constraints, improve patient education, and enhance healthcare system support, particularly through nurse- and physician-led programs. Moreover, policymakers should prioritize equitable access to medication and advocate for patient-centered care models tailored to local realities.

Recommendations

It is highly recommended that the following guidelines be followed in order to make use of the study's findings and conclusions.

- Healthcare practitioners should implement interventions that address the specific needs of different age groups to enhance medication adherence. For older patients, simplifying medication regimens can help mitigate challenges associated with cognitive decline and polypharmacy. Meanwhile, younger patients may benefit from motivational support that emphasizes the importance of adherence in managing their health.
- Healthcare providers may develop gender-sensitive strategies that recognize the unique challenges men and women face. By addressing these differences, practitioners can create more effective treatment plans encouraging adherence.
- Patients and their medical professionals ought to participate in active dialogue regarding their medication regimens. Expressing concerns about side effects or the complexity of treatment can facilitate better understanding and adjustments.
- Hospital administrators should facilitate programs that provide financial assistance or resources for low-income patients, ensuring they can afford necessary medications without compromising their financial stability. Improving healthcare access is vital; this can be achieved by reducing wait times and enhancing follow-up systems to ensure continuous engagement and support for patients.
- Hospital administrators should invest in training healthcare providers in effective communication techniques. This training will help foster better relationships between patients and clinicians, ultimately leading to improved adherence rates and better health outcomes.
- Regarding patient care, nurses are essential and should concentrate on establishing trusting bonds with their patients to enhance medication adherence. They should take the time to assess each patient's understanding of their treatment and address any misconceptions or concerns. Providing personalized education aligned to the patient's health literacy level can empower patients to engage actively in their health management.
- Doctors may assess each patient's unique circumstances, including age, socioeconomic status, and potential barriers to adherence. This understanding can guide them in tailoring treatment plans that are realistic and manageable for their patients.
- Policymakers and community organizations should advocate for policies that address socioeconomic disparities in healthcare access. Ensuring all patients can afford necessary medications is critical for improving health outcomes and reducing non-adherence. Supporting community health initiatives promoting awareness of hypertension management and the importance of medication adherence can also significantly impact the situation.
- Policymakers may collaborate with healthcare providers to develop programs that provide education and resources to patients struggling with adherence due to financial or social barriers.



- Future researchers should investigate the barriers to medication adherence across various demographic groups. Being aware of these difficulties will make it simpler to create targeted interventions that can effectively address the challenges faced by different populations.
- Future researchers may conduct longitudinal studies, which will also be beneficial, as they can assess the enduring impacts of tailored interventions on hypertensive patients in terms of alleviating non-adherent behavior and improving health status, contributing to the body of knowledge in this area.
- To investigate additional aspects not included in the study, a follow-up investigation might be carried out. Other district hospitals in the province or the region might be taken into consideration for a wider scope.

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