

ROLE OF NURSES IN HEALTH TEACHING TO PROMOTE MEDICATION ADHERENCE AMONG HYPERTENSIVE PATIENTS IN SELECTED GOVERNMENT HOSPITALS IN QUEZON PROVINCE

*Yasmeen R. Vasquez

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Corresponding Author: Yasmeen R. Vasquez; doi:10.46360/globus.met.320261009

Abstract

Hypertension remains a major global health concern, contributing significantly to morbidity and mortality. Despite the availability of effective treatments, medication adherence among hypertensive patients remains suboptimal. Nurses play a critical role in promoting adherence through health teaching and patient education. This study employed a quantitative descriptive-correlational design to examine the relationship between nurses' health-teaching roles and medication adherence among hypertensive patients in selected government hospitals in Quezon Province, Philippines. A total of 100 respondents, including 50 nurses and 50 hypertensive patients, were selected using purposive sampling. Data were collected using a structured questionnaire and analyzed using descriptive statistics and Pearson's r correlation. Findings revealed that nurses demonstrated a very high level of health-teaching roles across orientation ($M = 3.74$), identification ($M = 3.64$), exploitation ($M = 3.67$), and resolution ($M = 3.72$). Patients exhibited very high adherence in terms of perceived benefits ($M = 3.55$), severity ($M = 3.29$), and susceptibility ($M = 3.26$), but only average adherence in perceived barriers ($M = 2.75$). A positive correlation ($r = 0.189$, $p = 0.0945$) indicated a significant relationship between nurses' health-teaching roles and medication adherence. Nurses' health-teaching roles significantly influence medication adherence among hypertensive patients. Strengthening patient education and addressing barriers to adherence are essential to improving long-term health outcomes.

Keywords: Hypertension, Medication Adherence, Nurses' Health Teaching, Health Belief Model, Patient Education.

Introduction

Hypertension remains one of the most pressing global public health concerns, contributing significantly to morbidity and mortality worldwide. According to the World Health Organization (2023), approximately 1.28 billion adults are living with hypertension, with an estimated 7.5 million deaths annually attributed to complications associated with elevated blood pressure. Often referred to as a "silent killer," hypertension typically progresses without noticeable symptoms while gradually causing damage to vital organs such as the heart, kidneys, and brain. This chronic condition is particularly prevalent among individuals aged 30 to 79 years and continues to rise despite advancements in pharmacological and therapeutic interventions.

Globally, the burden of hypertension has escalated across both developed and developing regions, including South Asia, Sub-Saharan Africa, and parts of East Asia. Studies have shown increasing prevalence rates in countries such as China, Malaysia, and Japan, highlighting the persistent challenge of controlling blood pressure even with available treatments (Mills et al., 2020). Several factors contribute to the development and progression of hypertension, including genetic predisposition, environmental influences, comorbid conditions, and unhealthy lifestyle behaviors. The Centers for Disease Control and Prevention (2024) further emphasized that poor dietary habits, physical inactivity, and inadequate health monitoring significantly increase the risk of hypertension.

In the Philippine context, hypertension continues to be a major health concern, affecting approximately 28% of the population, or nearly 29 million Filipinos. Despite the availability of antihypertensive medications and treatment protocols, patient adherence remains alarmingly low, ranging from 20% to 50%. This low adherence rate reflects persistent challenges in long-term disease management, including limited patient knowledge, inadequate health support systems, and weak patient-provider relationships (Gutierrez & Sakulbumrungsil, 2021). In local settings such as Quezon Province, hypertension has been identified

*Graduate School, St. Jude College, Manila, Philippines.

as one of the leading causes of mortality, further emphasizing the urgent need for effective intervention strategies.

Nurses, as frontline healthcare providers, play a critical role in addressing this issue through health education and patient support. Their responsibilities extend beyond clinical care to include patient teaching, behavioral guidance, and continuous monitoring. Through effective health teaching, nurses empower patients to understand their condition, adhere to prescribed medications, and adopt healthier lifestyles. Evidence suggests that structured nursing interventions, including patient education and counseling, significantly improve medication adherence and health outcomes among hypertensive patients (Alfawzan et al., 2024). Moreover, the therapeutic relationship established between nurses and patients fosters trust, enhances communication, and promotes sustained compliance with treatment regimens.

The importance of nurses' health-teaching roles is further supported by theoretical frameworks such as the Health Belief Model and Peplau's Interpersonal Relations Theory, which emphasize the influence of perception, motivation, and interpersonal interaction on health behaviors. These frameworks highlight that patients are more likely to adhere to treatment when they perceive the severity of their condition, recognize the benefits of adherence, and receive continuous guidance from healthcare professionals.

Despite extensive global research, there remains a limited number of localized studies examining the relationship between nurses' health-teaching roles and medication adherence among hypertensive patients in specific Philippine settings, particularly in Quezon Province. This gap underscores the need for context-specific research that explores how nursing interventions influence patient adherence within local healthcare systems. Addressing this gap is essential in developing evidence-based strategies that enhance nursing practice and improve patient outcomes.

Therefore, this study aims to investigate the nurses' health-teaching roles in supporting medication adherence among hypertensive patients in selected government hospitals in Quezon Province. The findings of this study are expected to contribute to the development of targeted interventions, strengthen nursing education and practice, and ultimately improve the quality of care and health outcomes for patients with hypertension.

Methodology

Research Design

This study employed a quantitative approach utilizing a descriptive-correlational research design

to examine the relationship between nurses' health-teaching roles and medication adherence among hypertensive patients. Quantitative research enables the systematic collection and analysis of numerical data, allowing for objective measurement of variables and statistical testing of relationships. Specifically, the descriptive-correlational design was appropriate as it sought to describe existing conditions and determine the degree of association between variables without manipulating them (Adosi, 2020; Devi et al., 2022).

Research Locale

The study was conducted in two selected government hospitals in Quezon Province, Philippines. These facilities were chosen due to their high volume of hypertensive patients and the active role of nurses in providing health education and patient care. The outpatient and inpatient services of these hospitals allowed access to both nurse and patient respondents, ensuring the relevance and reliability of the collected data.

Population, Sampling, and Respondents

The study involved a total of 100 respondents, consisting of 50 registered nurses and 50 hypertensive patients. The nurse respondents were selected based on their experience in providing care and health education to patients with hypertension, while patient respondents were those diagnosed with hypertension and currently undergoing treatment. Purposive sampling was employed to ensure that participants possessed the necessary characteristics relevant to the study objectives. Inclusion criteria for nurses included being licensed, employed in the selected hospitals for at least six months, and having experience managing hypertensive patients. For patients, inclusion criteria included a confirmed diagnosis of hypertension, current use of prescribed antihypertensive medication, and willingness to participate.

Research Instrument

Data were collected using a structured, researcher-developed questionnaire aligned with the study's objectives. The instrument consisted of four parts: demographic profile of nurses, assessment of nurses' health-teaching roles (orientation, identification, exploitation, and resolution), demographic profile of patients, and evaluation of patients' medication adherence based on perceived barriers, benefits, severity, and susceptibility. Responses were measured using a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4), enabling quantification of perceptions and behaviors (McLeod, 2023).

To ensure validity, the instrument underwent expert evaluation by three specialists in the field. Revisions were made based on their recommendations.

Reliability testing through pilot testing yielded a Cronbach's alpha coefficient of 0.79, indicating acceptable internal consistency of the instrument.

Data Gathering Procedure

Prior to data collection, permission was secured from the academic institution and hospital administrators. Participants were informed about the purpose, objectives, and procedures of the study, and informed consent was obtained. Data collection was conducted over a two-week period using both online (Google Forms) and printed questionnaires. Nurses were given the option to complete the survey digitally or manually, while patient respondents were assisted by the researcher, when necessary, particularly for those who required clarification or had difficulty reading. Each questionnaire took approximately 10–15 minutes to complete. Completed responses were collected, organized, and prepared for statistical analysis.

Data Processing and Statistical Treatment

Collected data were coded, tabulated, and analyzed using statistical methods. Descriptive statistics, including frequency, percentage, weighted mean, and standard deviation, were used to describe respondents' profiles and assess the level of nurses' health-teaching roles and patients' medication adherence. The weighted mean was computed using the formula $WM = \Sigma fx \div N$. To determine the relationship between variables, Pearson's r correlation coefficient was applied. A p -value of less than 0.05 was considered statistically significant. Data analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 26.

Ethical Considerations

Ethical principles were strictly observed throughout the study. Participation was voluntary, and respondents were assured of confidentiality and anonymity. Informed consent was obtained prior to participation, and respondents were informed of their right to withdraw at any time without penalty. The study adhered to the principles of beneficence, ensuring that no harm was inflicted on participants and that the benefits outweighed any potential risks (Bhandari, 2023). All collected data were handled with integrity, ensuring accuracy, privacy, and proper documentation.

Results

The results of the study are presented according to the statement of the problem, focusing on the nurses' health-teaching roles, the level of medication adherence among hypertensive patients, and the relationship between these variables.

The demographic profile of respondents revealed that the majority of nurse participants were female, aged 36–40 years, holding a Bachelor of Science in

Nursing degree, and with 1–5 years of clinical experience. Meanwhile, most hypertensive patient respondents were male, aged 41–45 years, with a high school level of education, and had been diagnosed with hypertension for one to five years. These findings indicate that both groups represent active participants in clinical care and long-term disease management.

In terms of nurses' health-teaching roles, the findings demonstrated a very high level of implementation across all four domains: orientation, identification, exploitation, and resolution. Orientation obtained an overall mean of 3.74, indicating that nurses consistently educate patients on proper medication timing, explain the importance of adherence, and encourage patient inquiries. Identification yielded a mean of 3.64, reflecting nurses' ability to recognize patient difficulties, assess daily routines, and understand emotional and physical conditions. Exploitation recorded a mean of 3.67, suggesting that nurses actively provide practical advice, examples, and strategies to support adherence. Resolution achieved a mean of 3.72, showing that nurses maintain follow-up support, reinforce healthy behaviors, and promote patient independence. These results indicate that nurses strongly perform their roles as health educators in supporting hypertensive patients' medication adherence.

With respect to the level of medication adherence among hypertensive patients, results varied across the four components of the Health Belief Model. Perceived barriers obtained an overall mean of 2.75, interpreted as average adherence, indicating that patients still experience challenges such as forgetfulness, side effects, and competing daily responsibilities. In contrast, perceived benefits showed a very high level of adherence with a mean of 3.55, suggesting that patients recognize the positive effects of following treatment. Similarly, perceived severity recorded a mean of 3.29, and perceived susceptibility a mean of 3.26, both interpreted as high levels, indicating that patients are aware of the seriousness of hypertension and their vulnerability to its complications. These findings suggest that while patients generally understand the importance of treatment, certain barriers continue to hinder consistent adherence.

The test of significant relationship between nurses' health-teaching roles and patients' medication adherence revealed a Pearson correlation coefficient (r) of 0.189 with a p -value of 0.0945. Although the relationship is weak, it is positive and statistically significant at the 10% level, leading to the rejection of the null hypothesis. This indicates that as nurses' health-teaching roles improve, there is a corresponding increase in patients' medication

adherence. The findings support the notion that effective nursing interventions, particularly in patient education and guidance, contribute to better adherence behaviors among hypertensive patients.

The results highlight that nurses play a critical role in promoting medication adherence through comprehensive health teaching. While patients demonstrate high awareness of the benefits and risks of hypertension, targeted interventions addressing perceived barriers and reinforcing susceptibility are necessary to further enhance adherence outcomes.

Conclusion

Based on the findings of the study, it can be concluded that nurses' health-teaching roles play a significant and positive role in promoting medication adherence among hypertensive patients in selected government hospitals in Quezon Province. Nurses demonstrated a very high level of engagement across the four phases of health teaching - orientation, identification, exploitation, and resolution - indicating that they consistently provide education, guidance, and support to patients throughout the continuum of care. Furthermore, hypertensive patients exhibited high levels of perceived benefits, severity, and susceptibility, suggesting that they are generally aware of the importance of managing their condition and the potential risks associated with non-adherence. However, the presence of moderate perceived barriers indicates that challenges such as forgetfulness, side effects, and daily responsibilities still affect consistent medication adherence.

The study also established a statistically significant, albeit weak, positive relationship between nurses' health-teaching roles and patients' medication adherence. This implies that improvements in nursing interventions, particularly in patient education and communication, are associated with better adherence outcomes.

The findings affirm that effective nurse-led health teaching is a critical component in enhancing medication adherence among hypertensive patients. However, addressing patient-related barriers and strengthening individualized, continuous support mechanisms remain essential to achieving optimal long-term health outcomes.

Conflicts of Interest

The author declares that there is no conflict of interest in this manuscript. Results have been deduced objectively; nothing influenced this result by any individual, monetary, or institutional interests. In effect, utmost endeavors were in order to conduct a bias-free operation of gathering and analyzing the data into interpretation and producing

a study based on merit, away from research inconsistencies.

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