

11-12-2025

Staff Education: Teaching Patients to Manage Their Hypertension

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Walden University

College of Nursing

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Walden University
2025

Executive Summary: Staff Education Project
Staff Education: Teaching Patients to Manage Their Hypertension

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Executive Summary Submitted in Partial Fulfillment
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Doctor of Nursing Practice

Walden University

November 2025

Summary

This Doctor of Nursing Practice (DNP) project on staff education addresses the practice problem of staff knowledge deficits in educating patients on hypertensive management. The project question was: Will evidence-based hypertension management education increase staff knowledge? The project evaluated the effectiveness of a structured educational program in training personnel on how to educate patients on optimal hypertension management techniques. The project used evidence-based literature to bridge a clinical practice gap, educate staff, and empower healthcare professionals to improve patient care.

Ten participants were a part of the project. A pre-survey was administered, followed by a PowerPoint presentation on how to educate patients regarding the management of hypertension. A post-survey was administered. Data were collected using SurveyMonkey.

The pre-survey displayed a mean of 74%, while the post-survey showed a mean of 93%, indicating that the educational program improved knowledge. Project recommendations include specialized education, enhanced blood pressure testing, and coordinated treatment. By delivering uniform, high-quality, individualized care to all patients, specialized education reduces this gap, supports quality nursing practice, and promotes social change while administering equitable and inclusive care to all patients.

Background

The purpose of the education project was to improve staff knowledge on educating patients on hypertension management. Hypertension is a significant risk factor for cardiovascular disease and global mortality; however, patient awareness and adherence to treatment frequently remain inadequate. Bridging the knowledge gap among nursing staff and other healthcare providers is essential, as their ability to educate patients significantly influences clinical outcomes and self-management practices.

The DNP project question was: Will a staff education on an evidence-based approach to patient education on hypertension management increase staff knowledge? The DNP project sought to implement specific educational interventions that equip staff with current evidence-based strategies. According to Ukoha-Kalu et al. (2023), this process enhances the quality of patient education and ultimately facilitates improved blood pressure management. The American Heart Association (AHA) and the American Medical Association (AMA) underscore the significance of evidence-based practices by promoting standardized treatment protocols and team-based care models that integrate continuous quality improvement measures.

The background elements related to the rationale for the practice change encompass diminished staff knowledge and inadequate blood pressure measurement techniques. Interviews with the nursing staff revealed a knowledge gap in practice. Insufficient staff expertise can result in erroneous blood pressure measurements, ultimately leading to poor treatment adherence and suboptimal blood pressure management.

Staff may educate patients to incorrectly measure blood pressure at home, resulting in improper self-monitoring. They may also use wrong cuff sizes or fail to let the patient empty their bladder or rest before measuring blood pressure, which can lead to inaccurate readings. This causes nurses to record incorrect data. According to Gulati et al. (2021), due to continuous poor blood pressure measurement skills, retraining to enhance accurate monitoring is recommended.

A thorough search of Google Scholar, PubMed, and CINAHL yielded the literature. Searching from 2019 to 2024 yielded 3,000 results. Ten publications were examined, summarized, and evaluated using the Johns Hopkins Evidence-Based Model. Of the articles reviewed, there were three Level I, four Level II, and three Level III.

The literature suggests that insufficient knowledge among healthcare professionals regarding hypertension management leaves patients susceptible to misinformation and ineffective self-care strategies (Rhamttallah et al., 2025). Addressing this issue is crucial. By improving staff knowledge through comprehensive training programs, we can enable nursing staff to offer tailored education to the patients. The multiple studies emphasize educational interventions and healthcare professional involvement in blood pressure control, but few assess workforce competency in patient education (Ashraf et al., 2024).

The study by Choudhry et al. (2021) indicated that patients with hypertension who receive education demonstrate improved medication adherence rates. Also, in a cross-sectional study, staff training programs improved healthcare providers' ability to help patients manage hypertension (Adediran et al., 2024). Educational programs for healthcare workers improve patient medication adherence, supporting evidence-based

treatment (Aynalem et al., 2021). Comprehensively trained healthcare providers can explain medication adherence, address patient concerns, and create customized intervention strategies (Gemmechu & Awel, 2020).

Staff Education Project Development

A systematic method was used to design and carry out the project aimed at improving staff knowledge in educating patients about hypertensive management, including participant selection and procedure execution. Participants involved were healthcare providers such as physicians, nurses, and allied health professionals engaged in patient education. The process included the administration of pre- and post-intervention surveys to evaluate variations in participants' knowledge.

A PowerPoint presentation was developed highlighting current guidelines and evidence-based strategies to educate staff on educating patients on hypertension management. A brochure titled "How to Manage Blood Pressure" was adopted from the American Heart Association (AHA, 2025). Using SurveyMonkey's intuitive interface, a mixture of closed-ended and open-ended questions was used to collect quantitative data. A pre-survey link was distributed to ten participants following the development of the survey. The educational PowerPoint was presented in a face-to-face session lasting about 30 minutes. The training was followed by a scheduled process that allowed staff to participate in the post-survey anonymously without disrupting workflow.

A post-survey link was then shared with participants for completion after the PowerPoint presentation via SurveyMonkey's secure platform. The platform facilitated efficient sharing through email, promoting timely responses. No personal information or demographics were collected, and confidentiality was maintained throughout. To ensure

confidentiality and to be able to compare the same participant’s pre- and post-surveys results, each participant entered a unique identifier on both the pre- and post-surveys. Data analysis involved a comparison of pre- and post-knowledge from the survey results. The results were evaluated by using descriptive statistics to evaluate knowledge improvement. The data were exported to a Microsoft Excel spreadsheet to improve organization and facilitate visual representation via a graph (see Figure 1). This analysis evaluated the efficiency of the staff education program in improving staff knowledge on patient education on hypertension management. The analysis of scores from the pre- and post-surveys provides critical insights into the effectiveness of training interventions (see Table 1). The data also reveal a clear progression from the pre- to the post-survey results, indicating the staff have gained a deeper understanding on educating patients on hypertension management.

Results

Figure 1

Pre/Postsurvey Results

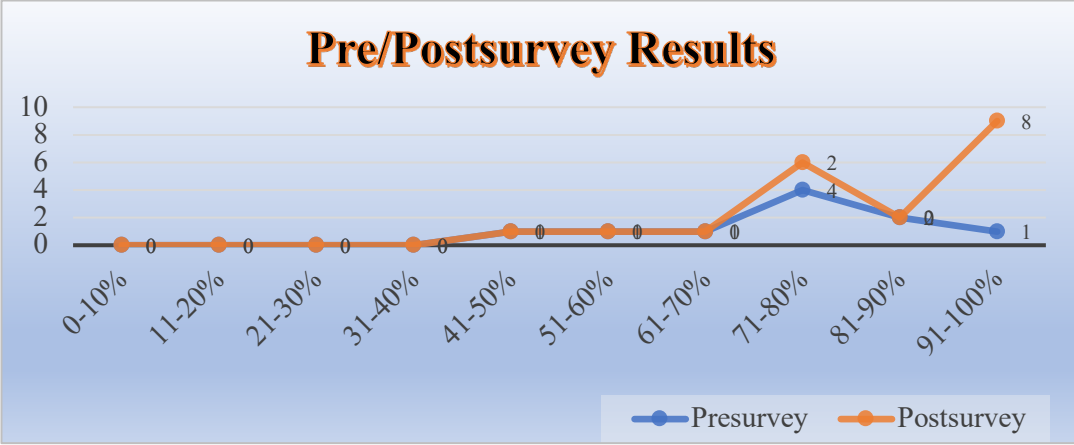


Figure 1 presents the findings from the pre- and post-survey knowledge gains. The presurvey results evaluating staff knowledge deficit on educating patients on hypertension management indicated an average score of 74%, with most respondents scoring between 71% and 100%. There was an identified knowledge gap, as evidenced by scores ranging from as low as 41% to as high as 100%.

Post-intervention survey results indicated a significant enhancement in staff knowledge. The mean score increased notably to 93%, with eight participants attaining scores ranging from 91-100%. This change signifies a general improvement in staff knowledge. The increase in the average pre-intervention score of 74% to a post-intervention average of 93% indicates significant improvements resulting from the educational initiative presented. The analysis of both pre- and post-survey data highlights that targeted educational interventions can improve staff knowledge on educating patients on hypertension management.

Table 1

Number and Percentage of Correct and Incorrect Before and After the Intervention

Respondents	Presurvey quiz score	Correct	Incorrect	Post-survey quiz score	Correct	Incorrect	Total
Participant 10	79%	6	2	93%	8	0	9
Participant 9	86%	8	0	100%	9	0	9
Participant 8	64%	5	3	100%	9	0	9
Participant 7	57%	5	3	71%	7	1	9
Participant 6	79%	7	1	79%	7	1	9
Participant 5	43%	5	3	93%	8	0	9
Participant 4	86%	7	1	100%	9	0	9
Participant 3	71%	7	1	93%	8	0	9
Participant 2	100%	9	0	100%	9	0	9
Participant 1	79%	8	0	100%	9	0	9

Table 1 presents data that represent the knowledge gains from the pre- to the post-education survey by individual participants. These results highlight the effectiveness of targeted educational strategies and the need for tailored approaches to accommodate individual learning patterns.

The impact of this project on the organization will promote better patient outcomes, reduce uncontrolled hypertension rates, reduce readmission rates, and improve overall organizational performance. Enhancing staff knowledge on educating patients on hypertension management can also improve trust between staff and patients, and empower patients to actively engage in their care, which is essential for the effective and sustained management of hypertension. Mills et al. (2024) asserted that specialized training programs for nursing staff and healthcare professionals can improve the comprehension of hypertension and its management, resulting in improved patient outcomes and enhanced efficiency in care delivery.

The limitations that influenced the results are the size of the sample and a single-site location. A limited sample size of 10 may lead to bias, generalization, and variability, representing a major drawback of survey findings. Clifford et al. (2024) asserted that a survey with a restricted sample size limits the ability to capture a full range of experiences, knowledge levels, and educational requirements among healthcare professionals.

The limitation of a single-site location might limit the generalizability of the findings to other contexts with diverse patient demographics. The limited variability in sample size and location limits the richness of the collected data and raises concerns

about its applicability in guiding best practices for hypertension management across various healthcare systems. The 2021 study by Paczkowska et al. indicated that a single-location study on staff's knowledge to educate patients on hypertension management limited its ability to determine staff educational needs across different environments.

Conclusions

This staff education project's results demonstrate significant impacts on the organization, emphasizing both immediate benefits and greater implications. The observed improvements in participant performance highlight the efficacy of evidence-based education and current guidelines as necessary resources for increasing staff knowledge in patient education regarding hypertension management.

Recommendations include implementing mandatory continuing education programs that highlight evidence-based staff education on hypertension management, including online models for easy access. These programs must include precise blood pressure assessment, lifestyle changes, and adherence to medication.

The implications for nursing practice include enhancing patient outcomes, improving patient engagement and communication, and creating a more efficient healthcare system. The implication for positive social change is to empower the staff to deliver evidence-based, culturally competent care, therefore improving patient self-management, engagement, and health equity among varied communities. This promotes a culture of ongoing learning and enhancement within healthcare systems, facilitating the incorporation of innovative techniques and resulting in improved patient outcomes.

The implications for inclusive and equitable treatment necessitate training that transcends fundamental medical knowledge to tackle the systemic and social

determinants contributing to hypertension inequities across various racial, ethnic, and socioeconomic groups. Inclusive education can improve health outcomes and increase patient satisfaction by mitigating prejudices, cultural disparities, and language barriers.

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