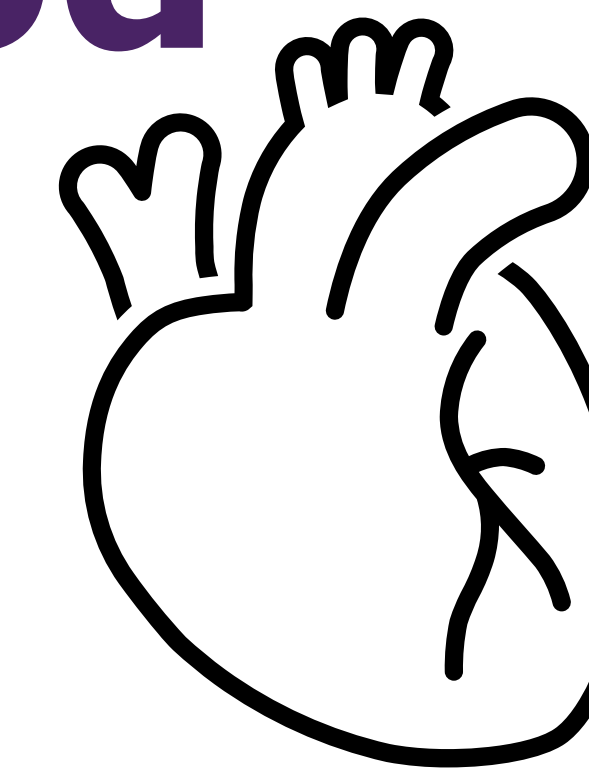


Stroke Prevention in Blood Pressure Management



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PROJECT METHODOLOGY

This project will help nurses better educate their patients, potentially improving patient compliance with blood pressure regimens. This program will try to reach the various type of learners through discussion, outline, and visualization. Nurses are encouraged to feel more empowered and competent to educate their patients following this educational program. Education will address barriers to patient adherence to blood pressure medication, patients at a higher risk of HTN and stroke, detecting and preventing HTN, and determining patients' preferences. The educational program has incorporated considerations of patients' race, culture, socio-economic status, and the number of comorbidities.

Plan and Development

- **Presentation** with face-to-face lecture
- **Lesson plan** outline
- The **pamphlet** with information about patient-centered goals, ideas on preventing HTN, and ways to manage a healthy BP level
- **Flyers** displayed in ED to remind nurses to educate more about proper BP management

Risk Factors

>35 yrs old
Overweight, obese
Physical inactivity
Family hx
Excess salt intake
Excess ETOH intake
Pregnancy



Evaluation

Surveys completed by ED nurse

- Pre/Post assessment survey
 - How often do you help patients find ways to improve their blood pressure specific to them as individuals?
 - How important do you feel it is to educate your patients on managing their blood pressure?
 - How often do you mention a patient's increased risk of stroke with high blood pressure?

- Feedback on presentation
- 12-month follow-up survey
 - What material do you find most effective in assisting you in teaching your patient how to manage their blood pressure?

Recommendations for Nurses

- Watch out for when your patient has high BP
- Take time to educate your patients
- Find goals that are individualized to the patient



THEORETICAL FRAMEWORK

Culture Care Theory

Dr. Madeleine Leininger

The core of the CCT is providing culturally congruent and professional care by seeking the patient's perspective on their health and being culturally competent⁷.

There is a diverse population of patients seen in the ED who may need additional support in managing their HTN and effectively preventing stroke.

Examples :

- **Immigrants**
- **Homeless**
- **Previously diagnosed w/ stroke**

When educating patients about proper BP management, an approach based on CCT may help them be more compliant and feel that regimen goals are reachable.

CONCLUSIONS

Research emphasized the importance of consistently managing blood pressure to decrease the occurrence of stroke ^{1,2,3,4,5,8,9,10}. This educational program can heighten nurses' understanding of why they should educate patients about the development of HTN and the patient's increased risk of stroke with each increment of elevation in BP. With improved education on hypertensive management, patients can decrease their risk of life-threatening health complications, including strokes.

REFERENCES

1. Béjot, Y. (2019). Targeting blood pressure for stroke prevention: Current evidence and unanswered questions. *Journal of Neurology*, 268(3), 785–795. <https://doi.org/10.1007/s00415-019-09443-5>
2. Bowling, C. B., Davis, B. R., Luciano, A., Simpson, L. M., Sloane, R., Pieper, C. F., Einhorn, P. T., Oparil, S., & Muntner, P. (2019). Sustained blood pressure control and coronary heart disease, stroke, heart failure, and mortality: An observational analysis of ALLHAT. *The Journal of Clinical Hypertension*, 21(4), 451–459. <https://doi.org/10.1161/JCH.118.000000>
3. Dong, C., Della-Morte, D., Rands, T., Wright, C. B., Elkind, M. S., & Sacco, R. L. (2016). Evidence to maintain the systolic blood pressure treatment threshold at 140 mm Hg for stroke prevention: The Northern Manhattan Study. *Hypertension*, 66(4), e568–e576. <https://doi.org/10.1161/01.str.0000437068.30550.c7>
4. Jamison, J., Gaffly, J., Mullis, R., Mant, J., & Sutton, S. (2016). Barriers to medication adherence for the secondary prevention of stroke: A qualitative interview study in primary care. *The British Journal of General Practice*, 66(649), e568–e576. <https://doi.org/10.3399/bjgp16X685609>
5. Lackland, D. T., Rocella, E. J., Deutsch, A. F., Forname, M., George, M. G., Howard, G., Kissela, B. M., Kittner, S. J., Lichtman, J. H., Lisabeth, L. D., Schwamm, L. H., Smith, E. E., Towfighi, A., American Heart Association Stroke Council, Council on Cardiovascular and Stroke Nursing, Council on Quality of Care and Outcomes Research, & Council on Functional Genomics and Translational Biology (2014). Factors influencing the decline in stroke mortality: A statement from the American Heart Association/American Stroke Association. *Stroke*, 45(1), 315–353. <https://doi.org/10.1161/01.str.0000437068.30550.c7>
6. Howard, G., Banach, M., Cushman, M., Goff, D. C., Howard, V. J., Lackland, D. T., McVay, J., Meschia, J. F., Muntner, P., Oparil, S., Rightmyer, M., & Taylor, H. A. (2015). Is blood pressure control for stroke prevention the correct goal? The lost opportunity of preventing hypertension. *Stroke*, 46(6), 1595–1600. <https://doi.org/10.1161/STROKEAHA.115.007838>
7. McFarland, M. R., & Wehbe-Alam, H. B. (2019). Leininger's theory of culture care diversity and universality: An overview with a historical retrospective and a view toward the future. *Journal of Transcultural Nursing*, 30(6), 540–557. <https://doi.org/10.1177/1043986219867134>
8. Rodríguez-Yañez, M., Gómez-Choco, M., López-Cancio, E., Amaro, S., Alonso de Leciana, M., Arenillas, J. F., Ayo-Martín, O., Castellanos, M., Freije, M. M., García-Pastor, A., Gomis, M., Martínez Sánchez, P., Morales, A., Palacio-Portilla, E. J., Roquer, J., Segura, T., Serena, J., Vivancos-Mora, J., & Fuentes, B. (2021). Stroke prevention in patients with arterial hypertension: Recommendations of the Spanish Society of Neurology's Stroke Study Group. *Neurologia* (English Edition), 36(6), 462–471.
9. Zhong, X. L., Dong, Y., Xu, W., Huang, Y. Y., Wang, H. F., Zhang, T. S., Sun, L., Tan, L., Dong, Q., & Yu, J. T. (2021). Role of blood pressure management in stroke prevention: A systematic review and network meta-analysis of 93 randomized controlled trials. *Journal of Stroke*, 23(1), 1–11. <https://doi.org/10.5853/jos.2020.02698>
10. Zonneveld, T. P., Richard, E., Vergouwen, M. D. I., Nederkroon, P. J., de Haan, R. J., Roos, Y., B. W. E. M., & Kruit, N. D. (2018). Blood pressure-lowering treatment for preventing recurrent stroke, major vascular events, and dementia in patients with a history of stroke or transient ischaemic attack. *Cochrane Database of Systematic Reviews*, 2018, (8). <https://doi.org/10.1002/14651858.cd007858.pub2>

Figures

1. Microsoft PowerPoint. (2022). Photograph.

