

Hypertension Guideline Adherence Within The Retail Health Setting



JOHNS HOPKINS
SCHOOL of NURSING

Debora La Torre, MSN, APRN, FNP-BC, Valerie Cotter, DrNP, AGPCNP-BC, FAANP, FAAN

Introduction & Background

□ Pandemic exacerbated barriers hindering hypertension patient management

□ American Heart Association (AHA) American College of Cardiology (ACC) guidelines demonstrate higher prevalence (45%) of identifying individuals at risk of hypertension

□ 40% of providers adhere to current hypertension guidelines
➤ Mostly occurred in providers outside of primary care

Undiagnosed Hypertension Patient

Primary Care	Ambulatory Care (Urgent Care or Retail Health)	Emergency Department
<ul style="list-style-type: none"> • Diagnosis and Follow up • Treatment • Medication Adherence 	<ul style="list-style-type: none"> • Diagnosis and Follow Up • Treatment • Follow Up Adherence 	<ul style="list-style-type: none"> • Diagnosis and Treatment • Follow Up Adherence

Purpose Statement & Project Aims

□ Purpose Statement

Enhance the identification of patients with undiagnosed or undertreated hypertension in regional retail clinics by increasing the provider's knowledge, chart documentation and follow-up according to current 2017 ACC/AHA hypertension guidelines.

□ Aim 1:

□ Determine the effect of the virtual hypertension education program on provider knowledge through a 5-item survey.

□ Aim 2:

□ Determine the effects of the hypertension education program on provider orders among patients in hypertension stage 1 or higher in accordance with current 2017 AHA/ACC hypertension guidelines.

Methods

- **Design:** Pre and Post Test Design (5-Item Survey)
- **Setting:** A retail health region in the Northeast
- **Sample:** 10 Family Nurse Practitioners
- **Timeframe:** 12-week period
- **Retrospective data**
 - All 60 regional providers documented hypertension diagnosis within the EMR system
 - One-month pre/post educational intervention

Intervention

Duration: 5 weeks, Biweekly virtual sessions

Session 1
AHA/ACC Hypertension Guideline Criteria
Hypertension Medication Initiation & Treatment
ASCVD Usage
Masked/White Coat Hypertension

Session 2
Patient Case Scenario
EMR Hypertension Documentation

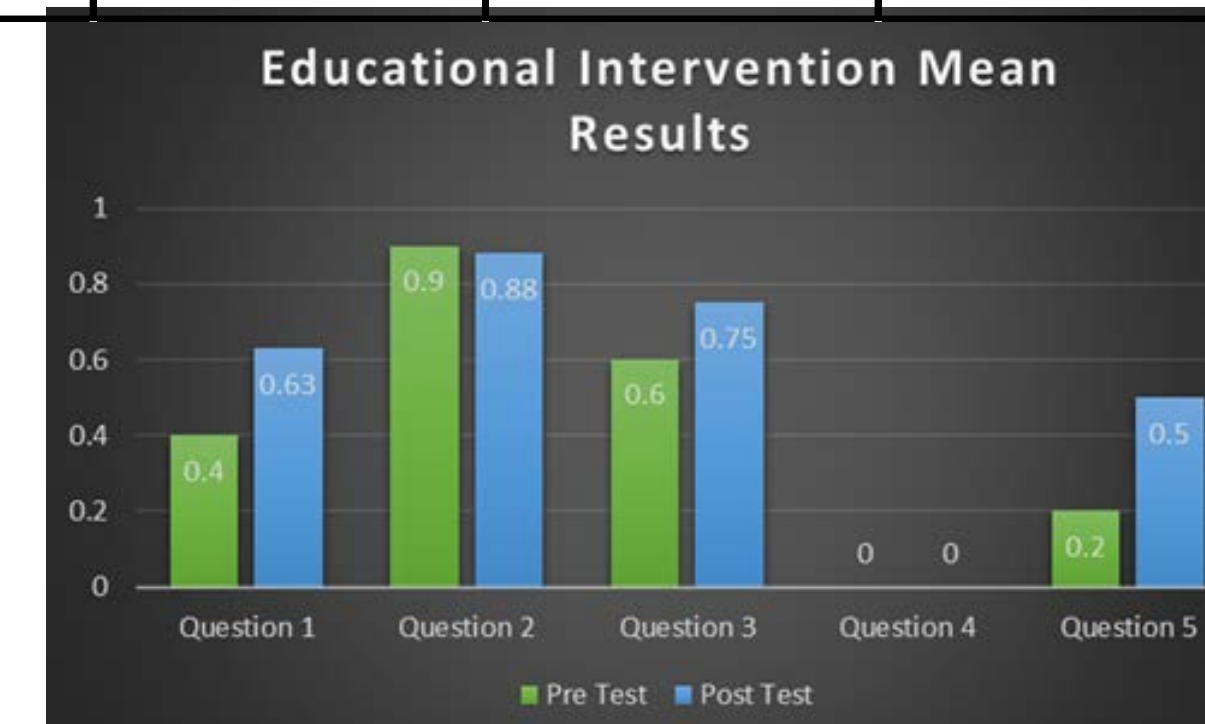
Results: Provider Knowledge

	Mean (Difference of Pre/Post Test)	Standard Deviation (SD)	Medium	IQR	p-value
Aim 1: Provider's Knowledge	0.75	1.8	1	2.5	0.301

❖ Statistical significance not met

➤ Clinical Findings:

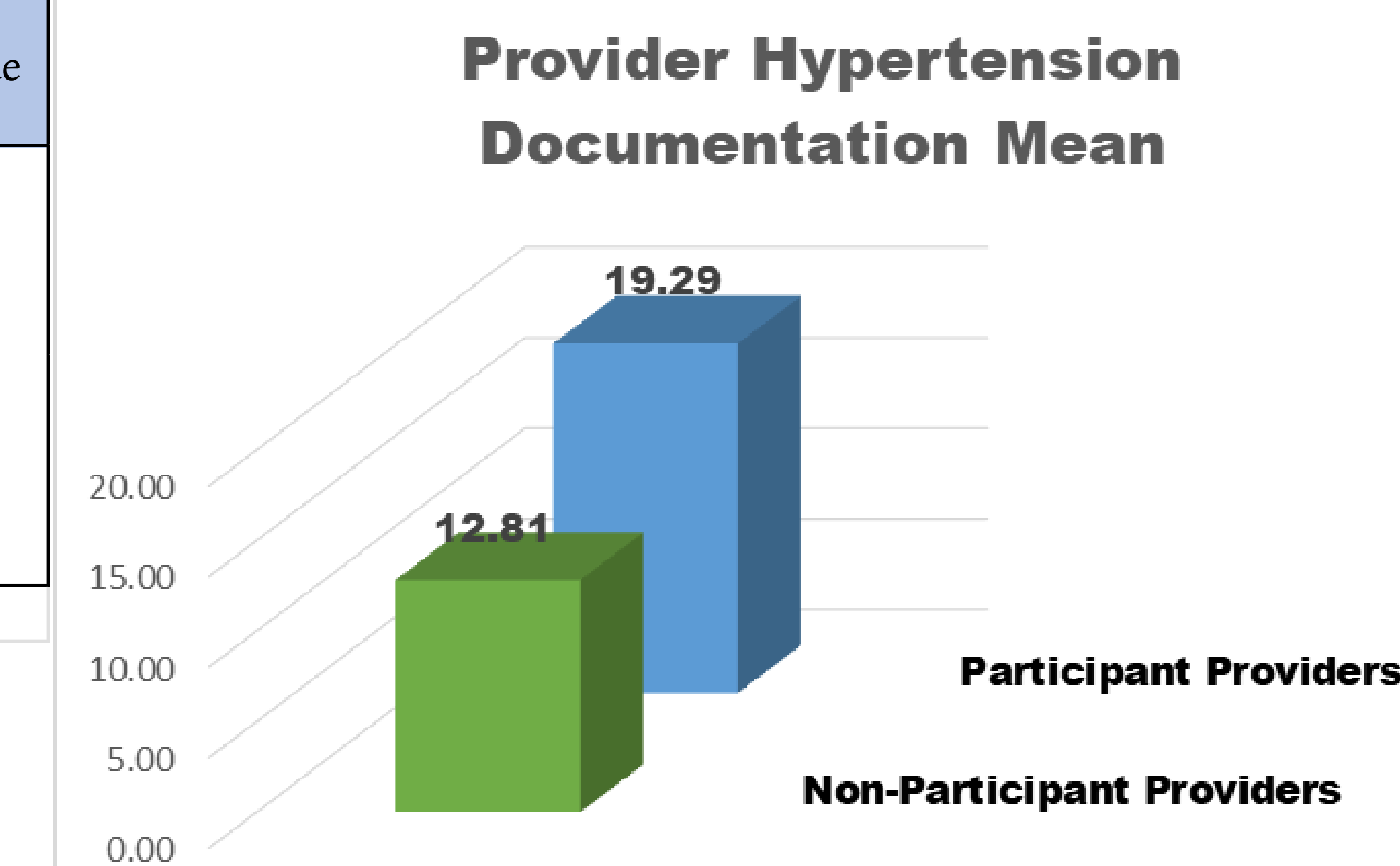
- ❖ Notable improvement from pre-post test.
- ❖ No change within white coat and masked hypertension



Results: Provider Documentation

Hypertension Documentation Within EMR	Mean	Standard Deviation (SD)	Median	IQR	p-value
Providers Who Participated in Educational Intervention	19.83	23.9	9	19	0.07
Providers Who Did Not Participate in Educational Intervention	12.8	21.82	2.5	14.25	

p-value > 0.05 statistical significance not met



Conclusion

- The need for provider hypertension guideline adherence within retail health setting can help identify those at risk of hypertension and manage those unable to access primary care.
- Findings within this quality improvement project noted the educational intervention benefit to providers' knowledge in hypertension guideline adherence and implore the need for future studies within this healthcare setting.

Limitations

- Future projects should encompass a larger, diverse sample size and have a longer implementation period
- Providers with administrative roles should not be included within the eligibility criteria for future studies
- Providers and staff should be included in future educational efforts to enhance interprofessional collaboration, hypertension guideline adherence and implementation

Sustainability

- Will be maintained by the regional leadership and quarterly virtual education sessions will be available to regional providers.
- Regional providers will receive quarterly percentages of their hypertension documentation through the audit and feedback method, and chart reviews.

References

- AAbdelgadir, H. S., Elfadul, M. M., Hamid, N. H., & Noma, M. (2019). Adherence of doctors to hypertension clinical guidelines in academy charity teaching hospital, Khartoum, Sudan. *BMC Health Services Research*, 19(1). <https://doi.org/10.1186/s12913-019-4140-z>
- Banerjee, D., Chung, S., Wong, E. C., Wang, E. J., Stafford, R. S., & Palaniappan, L. P. (2012). *Underdiagnosis of Hypertension Using Electronic Health Records*. 25, 97–102. <https://doi.org/10.1038/ajh.2011.179>
- Brunström, M., Ng, N., Dahlström, J., Lindholm, L. H., Lönnberg, G., Norberg, M., Nyström, L., Weinehall, L., & Carlberg, B. (2020). Association of Physician Education and Feedback on Hypertension Management With Patient Blood Pressure and Hypertension Control. *JAMA Network Open*, 3(1), e1918625. <https://doi.org/10.1001/jamanetworkopen.2019.18625>
- Centers for Disease Control and Prevention. (2020). *Facts About Hypertension* [cdc.gov]. <https://www.cdc.gov/bloodpressure/facts.htm>
- Copeland, B., Raynor, M. E., Elsner, N., & Carter, R. (2016, October 14). Beyond the acute episode. Retrieved June 6, 2020, from <https://www2.deloitte.com/us/en/insights/industry/health-care/retail-clinics-chronic-care-management.html>
- Czeisler MÉ, Marynak K, Clarke K, Salah Z, Shykya I, Thierry JM, Aii N, McMillan H, Wiley JF, Weaver MD, et al. Delay or avoidance of medical care because of COVID-19-related concerns - United States, June 2020. *MMWR Morb Mortal Wkly Rep*. 2020; 69:1250–1257. doi: 10.15585/mmwr.mm6926a4
- Ehrenthal, D. B., Haynes, S. G., Martin, K. E., Hitch, J. A., Addo, S. F., O'Neill, E., Piña, L. L., Taubenheim, A. M., & Sloan, N. L. (2013). Evaluation of the Heart Truth Professional Education Campaign on Provider Knowledge of Women and Heart Disease. *Women's Health Issues*, 23(2), e87–e93. <https://doi.org/10.1016/j.whi.2013.01.001>