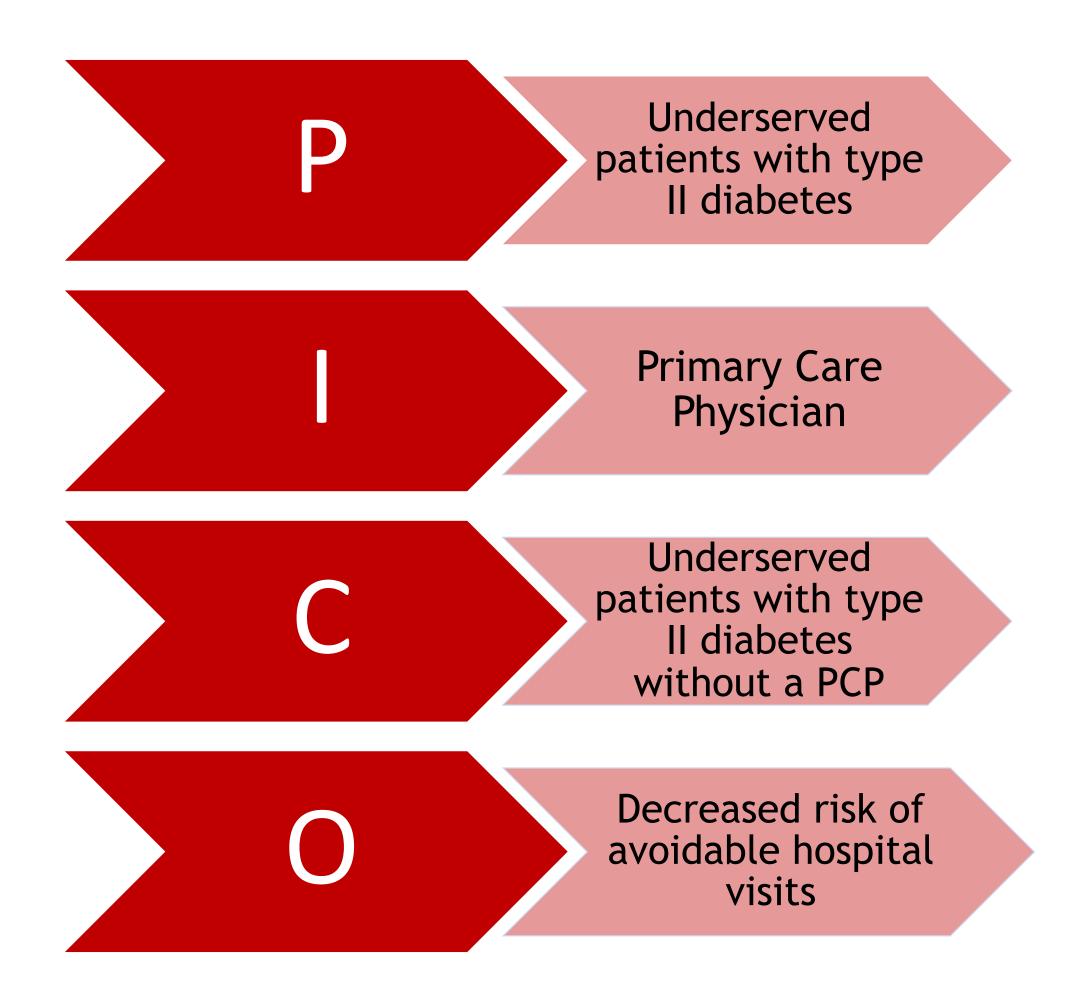
The Effect of Primary Care Providers (PCP) on Avoidable Emergency Room Visits in Underserved Patients with Type II Diabetes

Michala Coffman, BS, Chelsea Osei, BS, Diana Pelaez, BA Kelle Huong Phan, DNP, RN, NNP-BC, Andrea Brooks, PhD, RN, PPCNP-BC, Shermel Edwards-Maddox, MSN, RN, CNE, RN-BC



PICOT Question

Are underserved patients with type II diabetes who have a PCP at a decreased risk of avoidable emergency room visits compared with underserved patients with type II diabetes without a PCP?



Literature Search

- Databases: PubMed, JSTOR, Google Scholar
- Article Selection Criteria:
 - Peer-reviewed articles
 - Articles no older than 5 years from publication
- Keywords:
 - Diabetes ,emergency room, underserved ,avoidable ,management, diabetes mellitus



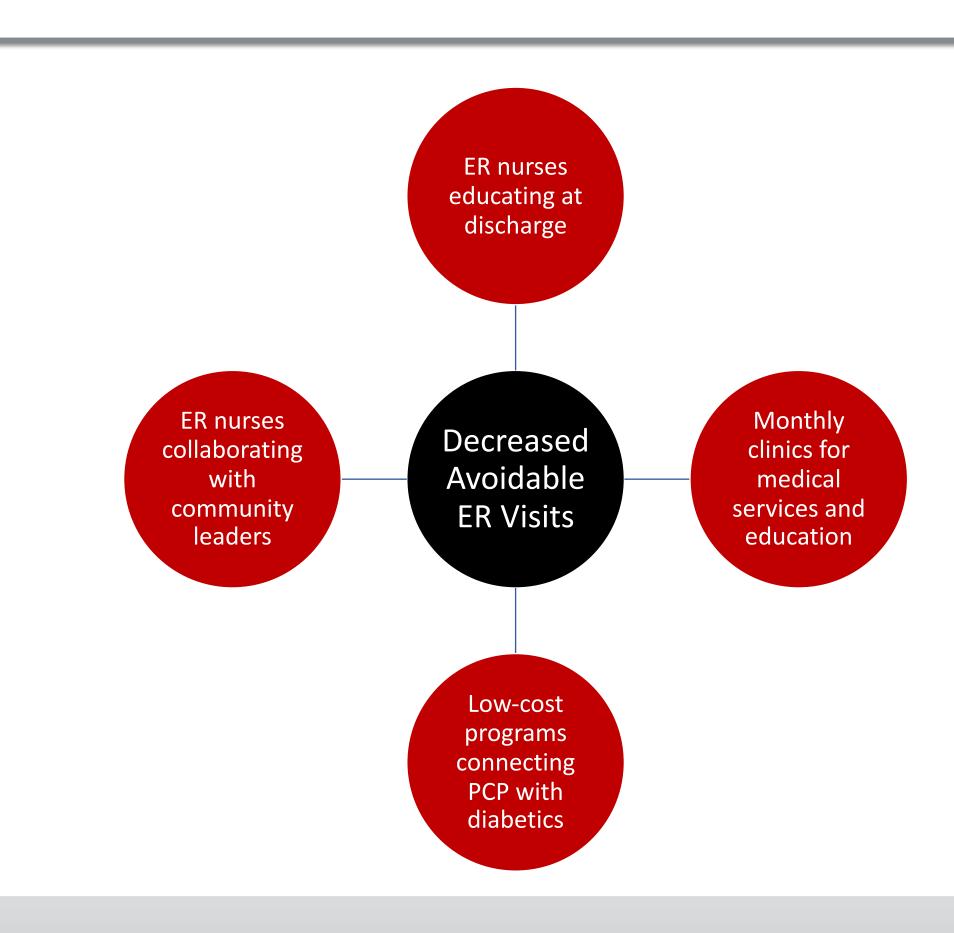


Synthesis of Findings

- Retrospective cohort study found that attending regularly scheduled PCP appointments shows decreased HbA1c level and decreased ED visits (Carter et al., 2016; Chwastiak et al., 2017).
- In socioeconomically disadvantaged areas, patients who do not have a patient- provider relationship have a higher instance of avoidable ED visits due to their inability to self manage their diabetes (Aweko et al., 2018; Dashputre et al., 2020).
- Programs like the FMG, Care One Program, Multi Condition collaborative care program, Risk Stratification program are interventions that can be used to increase access of underserved patient medical needs through primary care providers (Carter et al., 2016; Chwastiak et al., 2017; Karter et al., 2017; Soto Mas et al., 2019).
- Social determinants of health such as lack of access to transportation shows that individuals are more likely to have uncontrolled medical conditions such as diabetes, miss their appointments, and stop taking their medications (Soto et al, 2019; Thomas et al., 2018).
- Non-emergency medical transportation leads to improved diabetes management especially in rural areas where access to public transportation is scarce. However, residents of Harlem, an urban setting with ample transportation, reported lack of transportation as a reason for discontinuing insulin treatment (Soto et al, 2019; Thomas et al., 2018).

Decision to Change Practice

- The ER nurses can educate ER patients on community resources that provide aid and support in management of their diabetes at discharge.
- ER nurses can work with hospital administration and community leaders to set up a monthly clinic that can provide medical services and education on diabetes management for underserved populations.
- ER nurses will work with hospital administration to begin a low cost program that will connect underserved populations with diabetes with a primary care provider.



Evaluation

- Outcome: Decreasing avoidable ER visits for diabetic patients
- Measurement: Self reported questionnaire
- When: completion of ER visit

References

Carter, R., Lévesque, J. F., Harper, S., & Quesnel-Vallée, A. (2016). Measuring the effect of family medicine group enrolment on avoidable visits to emergency departments by patients with diabetes in Quebec, Canada. *Journal of Evaluation in Clinical Practice*, 23(2), 369-376. https://doi.org/10.1111/jep.12627

Chwastiak, L.A., Jackson, S.L., Russo, J., DeKeyser, P., Kiefer, M., Belyeu, B., Mertens, K., Chew, L., & Lin, E. (2017). A collaborative care team to integrate behavioral health care and treatment of poorly-controlled type 2 diabetes in an urban safety net primary care clinic. *General Hospital Psychiatry*, 44, 10-15.

https://doi.org/10.1016/j.genhosppsych.2016.10.005

Dashputre, A. A., Surbhi, S., Podila, P. S. B., Shuvo, S. A., & Bailey, J. E. (2020). Can primary care access reduce health care utilization for patients with obesity-associated chronic conditions in medically underserved areas? *Journal of Evaluation in Clinical Practice*, 26(6), 1689-1698. https://doi.org/10.1111/jep.13360

Karter, A. J., Warton, E. M., Lipska, K. J., Ralston, J. D., Moffet, H. H., Jackson, G. G., Huang, E. S., & Miller, D. R. (2017). Development and validation of a tool to identify patients with type 2 diabetes at high risk of hypoglycemia-related emergency department or hospital use. *JAMA Internal Medicine*, 177(10), 1461. https://doi.org/10.1001/jamainternmed.2017.3844
Sawicki, O. A., Mueller, A., Klaaßen-Mielke, R., Glushan, A., Gerlach, F. M., Beyer, M., Wensing, M., & Karimova, K. (2021). Strong and sustainable primary healthcare is associated with a lower risk of hospitalization in high risk patients. *Scientific Reports*, 11(1).

https://doi.org/10.1038/s41598-021-83962-y
Soto Mas, F., Iriart, C., Pedroncelli, R., Binder, D. S., Qualls, C. R., & Price, B. (2019). Impact of health care and socioeconomic needs on health care utilization and disease management: The University of New Mexico Hospital Care One Program. *Population Health Management*, 22(2), 113-119. https://doi.org/10.1089/pop.2018.0048

Thomas, L. V., Wedel, K. R., & Christopher, J. E. (2018). Access to transportation and health care visits for Medicaid enrollees with diabetes. *The Journal of Rural Health: Official journal of the American Rural Health Association and the National Rural Health Care Association*, 34(2), 162-172. https://doi.org/10.1111/jrh.12239

Acknowledgements

We would like to thank Dr. Andrea Brooks, PhD, RN, PPCNP-BC; Dr. Kelle Huong Phan DNP, RN, NNP-BC; and Professor Shermel Edwards-Maddox, MSN, RN, CNE, RN-BC for their assistance on this poster. We would also like to thank the Vivian L. Smith Foundation for providing academic scholarships.