Improving Hepatitis C Screening in Minority Baby Boomers in the Primary Care Setting

Rita K Asiedu, BSN, RN
DNP Project Chair: Dr. Ying-Yu Chao | DNP Project Member: Dr. Dennis Yeboah Kordie

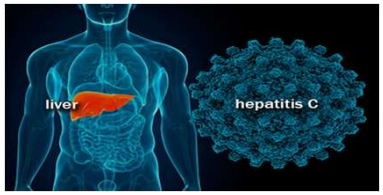
RUTGERS School of Nursing

Introduction

- Globally, more than 185 million people are infected with hepatitis C virus (HCV).
- In the US, over 3.2 million people are living with HCV infection with 75% of them born between 1945-1965 (baby boomers).
- Due to this high prevalence among baby boomers, the Center for Disease Control (CDC) and the US Preventive Service Task Force (USPSTF) recommends a one-time cost saving HCV screening among the 1945-1965 birth cohort.
- However, few data exist on the implementation of this recommendation in primary care settings.
- Providing educational intervention for primary care providers may increase screening and identification of asymptomatic patients and link them to care (Yartel et al., 2018)

Background and significance

- Baby boomers are five folds more likely to be infected with HCV compared to other adults
- 3 in 4 people with HCV were born between 1945-1965
- If left untreated HCV can cause liver damage, failure and hepatocellular cancer
- In 2016, baby boomers (55–64 years) accounted for the highest HCV related mortality rate (21.8 deaths/ population).
- HCV screening still remains low after the CDC and USPSTF screening recommendation.
- One-time screening of baby boomers would identify an estimated 800,000 infections and approximately 120,000 HCV-related deaths would be avoided with linkage to care and early treatment.
- With highly effective oral Direct-acting antiviral (DAA) baby boomers with chronic HCV patients can be cured successfully



Methodology

- This study used a retrospective and prospective study design by performing a chart review before and after an educational intervention administered to health care providers
- Setting was a primary care in northern New Jersey.
- A total of 56 charts of minority baby boomers predominantly African American(AA) and non-white Hispanics(H) were randomly reviewed.
- Exclusion criteria were having a diagnosis of HCV, prior screening for HCV and a Caucasian

Intervention

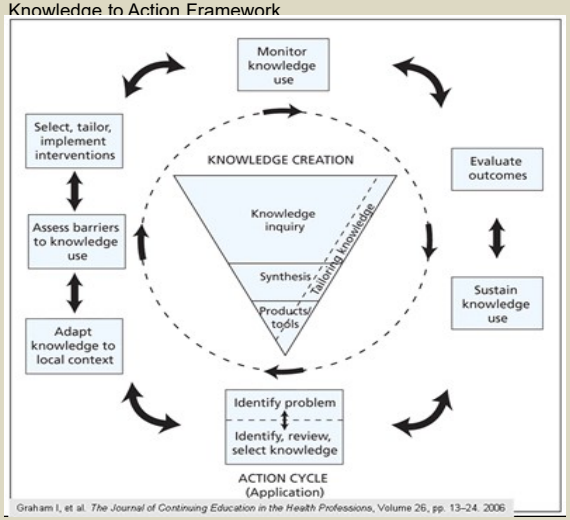
- 28 charts were reviewed before and 28 charts after intervention.
- HCV posters were placed in each examination room and patient's waiting room.
- Educational modules presented in power points were provided to primary care providers after initial chart review.
- Topics included CDC guidelines for HCV screening, HCV prevalence and Medicare and Medicaid reimbursement for HCV screening.
- Prospective chart review was done one month post provider's education to evaluate changes in screening post the education.

Data Analysis

- Descriptive statistics to describe project sample and analyze the comparison between retrospective and prospective chart review.
- Chi-square for statistical significance.
- SPSS and Excel for final data analysis

Theoretical/ Conceptual Framework:

Knowledge to Action Framework

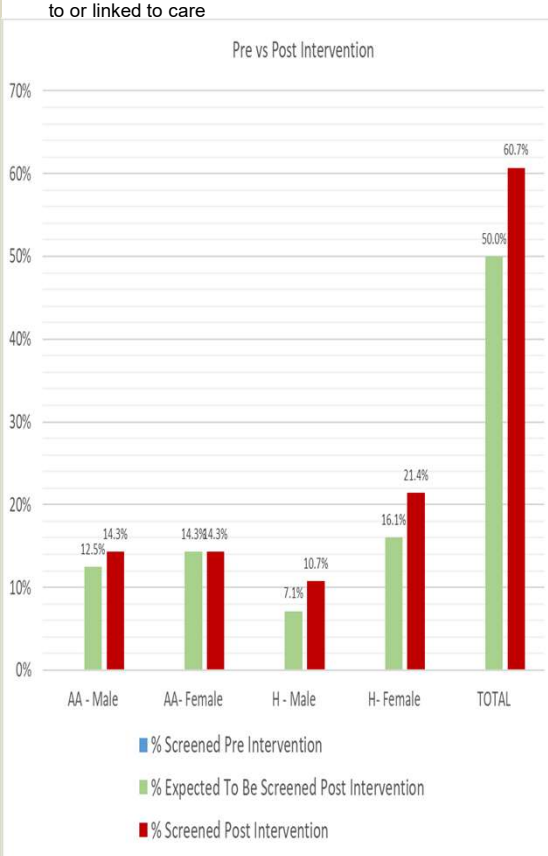


Contact Information
Rita Asiedu
ritaasiedur14@gmail.com

rka14@sn.rutgers.edu

Results

- 56 charts initially reviewed for the project with a hypothesis of H0 (Null)- no difference in screening after the intervention; H1 (Alternative)- 50% or more increase in screening after the intervention
- One chart had the diagnosis of HCV and was excluded from the initial chart review making total charts reviewed 55
- Results statistically significant ($X2 = 23.73$, $df = 1$, $p < 0.01$).
- Null hypothesis rejected.
- Screening increased by 60.7% among all minority baby boomers
- Screening in African American males increased by 14.29% (0/27 to 4/28); 14.29% (0/27 to 4/28) increase in African American females; 10.71% (0/27 to 3/28) increase in Hispanic males and 21.43% (0/27 to 6/28) increase in Hispanic Females respectively.
- charts reviewed after the intervention were non-reactive to the hepatitis C antibody. The levels were 0.01 to 0.22 (≥ 1 is positive for HCV).
- None of the minority baby boomers were referred to or linked to care



Discussion/ Implications/ Recommendations

- Increase in providers knowledge on CDCs guidelines to increase HCV screening implementation
- Educate minority baby boomers to start HCV screening discussion with their providers
- Accurate documentation of HCV screening
- EMR reminders for HCV screening among baby boomers
- Larger sample to make findings more generalizable

References

- Cdc.gov. Retrieved 16 February 2019, from https://www.cdc.gov/hepatitis/resource
- Cdc.gov. Retrieved 26 April 2019, from https://www.cdc.gov/hepatitis/statistics
- Know More Hepatitis | CDC. (2019). Retrieved from https://www.cdc.gov/knowmorehepatitis/index.htm
- Flodgren, G., Parmelli, E., Doumit, G., Gattellari, M., O'Brien, M., Grimshaw, J., & Eccles, M. (2011). Local opinion leaders: effects on professional practice and health care outcomes. Cochrane Database of Systematic Reviews. doi: 10.1002/14651858.cd000125.pub4
- Graham, I., Logan, J., Harrison, M., Straus, S., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map?. Journal Of Continuing Education In The Health Professions, 26(1), 13-24. doi: 10.1002/chp.47
- Jemal, A., & Fedewa, S. (2017). Recent Hepatitis C Virus Testing Patterns Among Baby Boomers. American Journal Of Preventive Medicine, 53(1), e31-e33. doi: 10.1016/j.amepre.2017.01.033
- Jewett, A., Garg, A., Meyer, K., Wagner, L., Krauskopf, K., & Brown, K. et al. (2014). Hepatitis C Virus Testing Perspectives Among Primary Care Physicians in Four Large Primary Care Settings. Health Promotion Practice, 16(2), 256-263. doi: 10.1177/1524839914532291
- Kasting, M., Giuliano, A., Reich, R., Roetzheim, R., Nelson, D., Shenkman, E., & Vadaparampil, S. (2018). Hepatitis C Virus Screening Trends: Serial Cross-Sectional Analysis of the National Health Interview Survey Population, 2013–2015. Cancer Epidemiology Biomarkers & Prevention, 27(4), 503-513. doi: 10.1158/1055-9965.epi-17-0855
- Gower, E., Estes, C., Blach, S., Razavi-Shearer, K., & Razavi, H. (2014). Global epidemiology and genotype distribution of the hepatitis C virus infection. Journal of Hepatology, 61(1), S45-S57. doi: 10.1016/j.jhep.2014.07.027
- Holmberg, S., Spradling, P., Moorman, A., & Denniston, M. (2013). Hepatitis C in the United States. New England Journal of Medicine, 368(20), 1859-1861. doi: 10.1056/nejmp1302973
- Yartel, A., Rein, D., Brown, K., Krauskopf, K., Massoud, O., & Jordan, C. et al. (2018). Hepatitis C virus testing for case identification in persons born during 1945-1965: Results from three randomized controlled trials. Hepatology, 67(2), 524-533. doi: 10.1002/hep.29548