Title:
An Evidence-Based Educational Strategy to Improve Influenza Vaccination Rates Among Hospital Nurses

Title:
An Evidence-Based Nursing Framework to Improve the Hepatitis C Care Continuum in HIV Co-Infection

Laura E. Starbird, MS
Jason E. Farley, PhD, MPH
School of Nursing, Johns Hopkins University, Baltimore, MD, USA

Session Title:
Research Poster Session 2
Slot (superslotted):
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Care Continuum, Conceptual Framework and Nurse Case Management

References:

Abstract Summary:
Hepatitis C is the most common cause of non-AIDS related death among people living with HIV, yet few have received curative treatment. This presentation describes the development and conceptual framework of a multifaceted nurse case management intervention to improve the hepatitis C care continuum among people co-infected with HIV.

Learning Activity:
Describe the hepatitis C care continuum among people co-infected with HIV/AIDS

- Global Impact of HCV
- Impact of HCV on people living with HIV/AIDS
- HCV Care Continuum: Among those who have hepatitis C, what is the:
  1. number diagnosed
  2. number linked to care
  3. number evaluated for treatment
  4. number initiated treatment
  5. number achieved cure
- Known barriers to engaging in HCV care

Apply the Andersen Model of Health Services Use to the hepatitis C care continuum

- Concepts of the Model of Health Services Use
  1. Predisposing characteristics
  2. Enabling and impeding resources
  3. Need: Perceived and Actual
- Application of the model to the HCV care continuum

Identify a nurse case management intervention to improve the hepatitis C care continuum among people co-infected with HIV/AIDS

- Review of previous research examining interventions to improve a care continuum in similar populations (HIV, people who inject drugs, mental illness)
- Description of intervention components and how they fit into the Andersen Model
  1. Nurse-initiated referral
  2. Strengths-based education
  3. Patient navigation
  4. Reminder systems

Use a conceptual framework to inform a research design to evaluate a nurse case management intervention

- Visual depiction of conceptual framework
- Discussion of hypothesis, aims, and research designs that test the framework
- Plan for future studies to test nurse case management intervention

Abstract Text:

**Purpose:** The purpose of this presentation is to a) describe the development of an evidence-based nurse case management intervention to increase uptake of HCV care in an HIV primary care setting using the revised Criteria for Reporting the Development and Evaluation of Complex Interventions in Healthcare (CReDECI 2) (Möhler et al., 2015); and b) illustrate a conceptual framework for a theory-based nurse case management intervention to improve the HCV care continuum among people living with HIV.

Over 185 million people have been infected with hepatitis C virus (HCV) globally (World Health Organization, 2014). HCV is the most common cause of non-AIDS related death among people living with HIV (Centers for Disease Control and Prevention [CDC], 2014). One quarter of people living with HIV are co-infected with HCV, which accelerates the progression to end stage liver disease and hepatocellular carcinoma (CDC, 2014; Lo Re et al., 2014). HCV can be cured with a single daily pill in just 12 weeks (Thomas, 2014); however, in the United States only 1 in 5 people with chronic HCV are linked to HCV care and fewer than 10% have ever initiated treatment (Cachay et al., 2014; Yehia et al., 2014). Barriers to engagement in HCV care include low knowledge and perceived threat of HCV, and HIV-HCV drug-drug interactions, which will exist for up to 88% of people with HIV/HCV co-infection in the setting of new HCV treatments (Patel et al., 2015). In this era of effective all-oral HCV treatment, linking patients to specialty HCV services is essential to maximize the lifesaving potential of available therapies and cure HCV. Evidence-based interventions to increase knowledge about HCV, its perceived threat, and available
treatments are needed to improve the HCV care continuum and increase uptake of curative therapies among people co-infected with HIV/HCV.

**Methods:** We developed a multifaceted intervention comprised of nurse-initiated referral, strengths-based education, patient navigation, and coordinated drug-drug interaction prevention. Andersen’s Behavioral Model of Health Services Use (1995) was applied to inform the intervention components. According to Andersen, a person’s use of health services is a function of predisposing factors, enabling resources, and perceived and actual need for care. Perceived need can be changed through education; the greater the perceived and actual need, the more likely one is to use services. Andersen also suggests that enabling resources can be influenced by interventions at the system, provider, and patient level. The more enabling resources one has, the greater the likelihood of healthcare utilization. Enabling resources for the uptake of HCV care can include patient navigation, appointment reminders, and support for drug-drug interaction prevention. A literature review guided by the Andersen Model was conducted to examine successful engagement in care intervention components in similar populations. The concepts of the Andersen Model were then used to adapt these evidence-based components into a brief nurse case management intervention specifically for the HIV/HCV co-infected population in an HIV primary care setting.

**Results:** Examination of the Andersen Model and current literature resulted in three outcomes: 1) A brief nurse case management intervention to improve engagement in HCV care that can be administered in HIV primary care was developed. The intervention components include nurse-initiated referral to HCV care, strengths-based education, patient navigation, appointment reminders, and coordinated drug-drug interaction prevention; 2) The relationships between Andersen’s concepts and the intervention components were illustrated in a conceptual framework. This framework indicates the pathway to which the HCV care continuum, specifically linkage to care and treatment initiation, can be improved; and 3) A randomized controlled trial was designed based on the conceptual framework to test the hypothesis that a nurse case management intervention will improve the HCV care continuum for patients co-infected with HIV by increasing perceived need and maximizing enabling resources.

**Conclusion:** We are at a defining moment for HCV care. All-oral treatments are available that provide us with the opportunity to cure HCV in nearly all patients with few side effects in 12 weeks. While necessary, these exciting new advances are not sufficient to solve the problem of the poor HCV care continuum. Without knowing how to get people to the point of starting HCV treatment, even the best medications can have no impact on HCV-related morbidity and mortality. Interventions that increase perceived need and maximize enabling resources have the potential to improve the HCV care cascade for people co-infected with HIV. This framework describes the first evidence-based, theory-driven nurse case management model to improve the care continuum within this new era of HCV in a real-world HIV primary care setting. The intervention described may ensure that the most effective linkage to care and treatment approach is integrated into care of this population across the care continuum. Studies to test the effect of this intervention in different settings are needed.