Providers’ Knowledge Assessment and Development of the Helicobacter Pylori Infection Management Protocol Tool

DNP Project Executive Summary
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Executive Summary

Background Summary: Many pathogens can be transmitted by direct contact from person to person, and H. Pylori is one of these pathogens. H. Pylori is a Gram-negative bacterium that remains one of the most common worldwide human infection that cause digestive diseases (Linz et al., 2007; Chey & Wong, 2007). Nearly all-gastric cancer cases, (95%) result from H. Pylori infection. H. Pylori infection also causes more than 90% of gastric mucosa-associated lymphoid tissue (MALT) lymphoma cases (Hunt et al., 2011). The main ways to transmit H. Pylori infection is direct contact from person-to-person by oral-to-oral, or fecal–to oral, contaminated water or food, and crowded living conditions (Brown, 2000; Kivi & Tindberg, 2006). Even though the prevalence of H. Pylori is declining in some parts of the world, the infection remains present in 28% to 84% in worldwide (Fallone et al., 2016). According to Henry (2016), the estimated prevalence of HP infection is 70% in developing countries, and 30% -40% in the United States, and in 94% East African immigrant who live in Minnesota (Wang & Adair, 1999).

Situation & Need for DNP Project: Somali immigrant at an inner city Federally Qualified Healthcare Center (FQHC) clinic in Minneapolis increased H. Pylori infection prevalence because has been no research done on why the Somali community has a high prevalence of the H. Pylori infection. There are a few experienced providers who are trying to manage H. Pylori infection at the center of this project. However, these providers do not have a protocol tool to follow for the assessment, treatment, and preventative measures for this population. Furthermore, managing behavior that influence the progression of the disease is needed to prevent H. pylori infection in this population, or the high rate will most likely continue. To provide quality and adequate health care services for Somali patients, it is essential that providers are knowledgeable, and comfortable in not only providing the treatment, but also being aware of the cultural behaviors that influence disease transmission.

DNP Project Purpose: The aim of this Doctor of Nurse Practice (DNP) project was to develop a culturally competent protocol tool that HCPs at an inner city FQHC in Minneapolis can use for assessment, treatment, and prevention of the H. pylori infection in the Somali immigrant population.

Initial Goals/Objectives for DNP Project: The first goal was to evaluate HCPs’ knowledge deficits regarding H. pylori infection management guidelines and Somali culture. The second goal was to develop and introduce understandable educational resources, such as an evidence-based protocol tool for management of H. Pylori infection, specifically designed for Somali immigrant patients in a primary care clinic. The third goal was to evaluate the HCPs’ knowledge regarding the effectiveness of the H. pylori infection protocol tool and culturally sensitive educational resources to determine whether this strategy improved the health outcomes for Somali patients.

Implementation & Evaluation Plan for the DNP Project: Those who signed a consent form and agreed to participate received an educational review of current H. Pylori infection clinical guideline recommendations for assessment, treatment, and prevention, as well as a brief explanation of how Somali culture can correlate with disease transmission. All these HCPs were pre-assessed, educated, and then re-assessed on their knowledge and awareness of current H. Pylori infection guidelines usability in the FQHC clinic, as well as what they know about the
correlation between Somali culture and disease transmission. This process involved six steps: conducting a gap analysis, completing HCP pre-surveys to evaluate their pre-intervention knowledge regarding H. Pylori infection management and cultural awareness; completing a chart review to evaluate guideline adherence and how many patients were tested, treated, or referred to a specialist; providing background education; completing post-intervention surveys to evaluate the effectiveness of the intervention; and determining the usefulness of the theories that guided this quality improvement (QI) project.

**Project Outcomes:** This DNP project improved providers’ knowledge and understanding of H. pylori infection treatment management in a Somali community. This manuscript reveals that updating knowledge and skills of HCPs via continuing educational intervention is the best way for adherence to guidelines and improving the quality of care for patients with H. Pylori infection diseases. This QI project demonstrated that a brief educational intervention could improve HCPs’ knowledge of when, how, and where to use appropriate treatment for patients with H. Pylori infection, as well as how to provide culturally sensitive guidance to reduce transmission of the disease.

**Recommendation:** Based on results, the DNP student, and HCPs recommended continued educational intervention to increase HCPs knowledge and confidence level related to the management of the H. Pylori infection in the primary care setting. The recommendation was to use this protocol tool after the post-project implementation. In addition, the above suggestions with cultural awareness of the disease prevention and H. Pylori infection management will likely bring into greater results. This particular theme will help and support future implications for extending QI project initiatives based on this topic.

**A Plan for sustainability:** All HCPs used the protocol tool algorithm and found that utilizing the guidelines was not a waste of time as they thought before. The providers also mentioned that having the protocol tool algorithm posted in each exam room would be very helpful for quick reference. In addition, the HCPs have committed to the use of the protocol tool as a sustainable educational and staff in-service education.
References


