

Comparative Effectiveness of Interventions to Improve Screening among Rural Women

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Dates of Support: 08/13/2015– 07/31/2020

Total Award Amount: \$1,423,826

Funding Agency: National Cancer Institute/The Ohio State University

Abstract:

In 2014 approximately 310,030 women in the United States (U.S.) will be diagnosed with breast cancer (BC), cervical cancer (CC), or colorectal cancer (CRC), and 68,060 women will die from these cancers. These three cancers account for 39% of the cancer burden and 25% of the cancer mortality among women in the U.S. Although effective screening tests are widely available for all three cancers, many women do not adhere to screening guidelines. Furthermore, the burden of these cancers is higher among some population groups and regions. Thirty-two rural counties in northwest Ohio and northeast Indiana share similar socioeconomically underserved populations of predominately (96.2%) white women who have elevated BC, CRC, and CC mortality rates, and lower screening rates with mammography, Pap tests, and fecal occult blood testing or colonoscopy. No known intervention has addressed improving screening rates for these three main female cancers simultaneously, even though multiple health behavior change research is emerging as a new model to change the way in which interventions can be packaged. The proposed project uses an overall theoretical framework to understand health disparities which includes individual, social and community level variables, and a conceptual model for the intervention which uses a multiple behavior theoretical approach, all of which have demonstrated efficacy in improving adherence to single screening test behaviors, as well as other preventive health behaviors. The goal of this proposal is to test the comparative effectiveness of a tailored interactive computer program delivered via DVD (TIDVD) vs. a TIDVD + telephone-based patient navigation (PN) intervention (TNI) vs. Usual Care (UC) to increase guideline-based screening rates for BC, CC, and CRC among women age 50 to 74 living in these rural counties of Ohio and Indiana. Specific aims are to: 1) compare the effectiveness of a tailored and interactive DVD (TIDVD) vs. TIDVD + telephone-based PN intervention (TNI) vs. UC, to increase guideline-based cancer screening rates at 12 months post randomization for BC, CC, and CRC among 1058 women age 50 to 74 living in rural northwest Ohio and northeast Indiana; and 2) compare the cost effectiveness of the TIDVD and the TIDVD + TNI intervention vs. UC, for adherence to each screening outcome or combination of screening tests. As an Exploratory Aim, we will identify associations between theoretical variables (community, social, and individual) and screening outcomes, including interactions with the interventions. If found to be cost effective, either or both interventions have the potential to be immediately disseminated to increase BC, CC, and CRC screening rates and ultimately reduce cancer disparities for underserved rural women.