Improving Rates of Colorectal Cancer Screening: No Easy Answers

Walsh JME, Salazar R, Terdiman JP, et al. Promoting use of colorectal cancer screening tests: can we change physician behavior? J Gen Intern Med 2005;20:1097–101.

Study Overview

Objective. To determine the effect of a multifaceted intervention targeting both physicians and patients on colorectal cancer screening rates.

Design. Randomized controlled trial.

Setting and participants. 94 physicians recruited from primary care practices that were part of a single, large independent practice association in San Francisco, CA, were randomized to the intervention group (n = 50) or to control (n = 44). Baseline characteristics between the physician groups were similar.

Intervention. The intervention group received educational seminars and written materials regarding colorectal cancer screening and underwent "academic detailing," which involved 1-on-1 educational and motivational interactions with trained physician opinion leaders in colorectal cancer screening. Patients whose providers were allocated to the intervention arm received a personalized letter from their provider regarding the importance of colorectal cancer screening, an educational brochure endorsed by the American Cancer Society, and a home fecal occult blood test (FOBT) kit.

Main outcome measures. Rates of overall screening, FOBT in the past 2 years, and flexible sigmoidoscopy or colonoscopy in the past 5 years were calculated. Main outcome was percentage change from baseline after 1 year.

Main results. In patients followed continuously for 2 years (n = 7993), no difference was found in screening rates with either FOBT or flexible sigmoidoscopy/colonoscopy screening procedures between the intervention group and the control group. For patients followed for 5 years (n = 2665), no difference was found in colorectal cancer screening rates with colonoscopy between the 2 groups. Rates of flexible sigmoidoscopy increased by 7.4% in the intervention group compared with 4.4% in the control group ($P < 0.01$). There was no statistically significant difference in physician-level colorectal cancer screening rates between the intervention group and control group for either the 2-year or 5-year groups.

Conclusion. An intervention targeting both physicians and their patients did not increase colorectal cancer screening rates when compared with no intervention. Additional approaches will need to be evaluated to determine the most effective way to increase colorectal cancer screening rates.

Commentary

Several randomized controlled trials have demonstrated that screening for colorectal cancer reduces cancer-related mortality [1,2]. Colorectal cancer screening with FOBT, flexible sigmoidoscopy, or colonoscopy has been universally recommended by multiple medical organizations [3,4]. Unfortunately, screening rates remain very low, with less than half of individuals who might benefit undergoing these procedures [5]. As such, thousands of potentially preventable deaths from colorectal cancer occur each year. Improving screening rates through effective interventions aimed at both physician and patient behavior is critical.

Unfortunately, changing human behavior remains a challenging and problematic task. As this large, well-designed study by Walsh et al demonstrates, even a well thought out intervention grounded in psychological principles may still fail to achieve the desired behavior change. Although negative results may occur due to a study being underpowered, this current study enrolled an adequate number of participants and was adequately powered to detect a 4% difference in FOBT testing and a 5.2% difference in flexible sigmoidoscopy/colonoscopy. Another potential explanation for the intervention's lack of effect may have been related to the study's setting. All participants had a usual health care provider and insurance coverage (both factors associated with higher colorectal cancer screening rates), and baseline colorectal screening rates ranged from 62% to 79%. Because flexible sigmoidoscopy/colonoscopy screening was considered to be current if the test had been conducted within the past 5 years (as opposed to 10 years, which would have been

more accurate), these already high screening rates may represent an underestimate of the actual baseline screening rates. Thus, with colorectal cancer screening rates so high, there may have been little room for improvement with the intervention. How this intervention might work in a different setting is unknown.

Applications for Clinical Practice

In this study, a physician intervention using educational lectures and brochures and 1-on-1 academic detailing coupled with a patient intervention consisting of personalized letters and education brochures had no impact on colorectal cancer screening rates. Colorectal cancer screening rates remain suboptimal, and novel approaches designed to increase screening rates need to be identified and evaluated.

–Review by Harvey J. Murff, MD, MPH

References

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