## Evaluation of a Personalized Online Decision Aid for Colorectal Cancer Screening: A Randomized Controlled Trial

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**Abstract :** Weighing the benefits and harms of colorectal cancer screening can be difficult for individuals. An existing online decision aid was expanded with a benefit-harm analysis to help people make an informed decision about participating in colorectal cancer screening. In a randomized controlled trial, we investigated whether those in the intervention group who used the decision aid with benefit-harm analysis were more certain about their decision than those in the control group who used the decision aid without benefit-harm analysis. Participants were 623 (39% of those invited) men and women aged 45 until 75 years old. Analyses were performed in those 386 participants (62%) who reported to have completed the entire decision aid. No statistically significant differences were observed between intervention and control group in decisional conflict score (mean difference 2.4, 95% CI -0.9, 5.6), clarity of values (mean difference 1.0, 95% CI -4.4, 6.6), deliberation score (mean difference 0.5, 95% CI -0.6, 1.7), anxiety score (mean difference 0.0, 95% CI -0.3, 0.3) and risk perception score (mean difference 0.1, -0.1, 0.3). Adding a benefit-harm analysis to an online decision aid did not improve informed decision making about participating in colorectal cancer screening.

Keywords: benefit-harm analysis, decision aid, informed decision making, personalized decision making

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