Title of Intervention: The Harvard Colorectal Cancer Risk Assessment and Communication Tool for Research

Intervention Strategies: Individual Education

Purpose of the Intervention: To enhance participants' understanding of their colorectal cancer risks

Population: Adults between the ages of 40 and 70

Setting: Primary care practices within a health center in Boston; health care facility-based

Partners: Harvard Vanguard Medical Associates

Intervention Description: Participants were assigned to one of five groups, each receiving a different combination of the following components: absolute risk presentation, relative risk presentation, active approach to risk communication and passive approach to risk communication.

- Individual Education: The Harvard Colorectal Cancer Risk Assessment and Communication Tool for Research is an interactive, computer-based tool used to provide individuals with estimated personal risk for colorectal cancer. It takes into account both modifiable and non-modifiable risk factors. In the absolute risk presentation, only the participants' absolute risk for colorectal cancer in the next twenty years was presented. In the relative risk presentation, only the relative risk was presented. In the active risk communication component, participants were presented with both modifiable and non-modifiable risk factors that contributed to their risk. They were able to manipulate the modifiable risk factors and see how their colorectal cancer risk would vary if specific behaviors were changed. In the passive risk communication component, participants were presented with a list of risk factors that contributed to their colorectal cancer risk and with recommendations for changes that could reduce their personal risk. They were not given the opportunity to see how adopting or changing any or all of the four risk factors would impact their total risk profile.

Theory: Not mentioned

Resources Required:

- Staff/Volunteers: Staff to maintain computer program
- Training: Not mentioned
- Technology: Computers
- Space: Not mentioned
- Budget: Not mentioned
- Intervention: Harvard Colorectal Cancer Risk Assessment and Communication Tool for Research computer program
- Evaluation: Questionnaires, patient satisfaction scale, statistical software

Evaluation:

- Design: Randomized controlled trial
- Methods and Measures:
    - Patients completed questionnaires to assess perceptions of both their absolute and relative risk of colorectal cancer, the impact of level of engagement on risk perception, the impact the risk presentation had on risk perception accuracy, any adverse effects on risk perception and their level of fear or worry to determine if the program had the potential for increasing negative emotion.
    - Patients completed the patient satisfaction scale to measure their level of satisfaction with the computer tool and willingness to recommend the tool to others.

Outcomes:

- Short Term Impact: Presenting both absolute and relative risk information led to significantly improved risk perceptions. Of those with inaccurate risk perception at baseline, more than half of the participants in the intervention groups had corrected risk perceptions at follow-up. The use of the active communication intervention tended to imply greater levels of improvement in risk perceptions. The

intervention was successful at correcting misconceptions participants had regarding their risk for colorectal cancer. The intervention did not yield increased levels of worry about getting colorectal cancer at post-test. Participants who were presented with both risk presentations were more likely to recommend the intervention to a friend.

- Long Term Impact: Not measured

Maintenance: Not mentioned

Lessons Learned: An interactive risk assessment tool can help participants who overestimate their risk level to develop accurate judgments of risk and identify other behaviors that reduce risk. For individuals who understand their risk, it can increase awareness and provide opportunities to re-assess health behaviors. The tool can help save time and initiate dialogue between providers and patients about colorectal cancer prevention.

Citation(s):

Emmons KM, Wong M, Puleo E, Weinstein N, Fletcher R, Colditz G. Tailored computer-based cancer risk communication: correcting colorectal cancer risk perception. J Health Commun. Mar-Apr 2004;9(2):127-141.