Colorectal cancer (CRC) screening rates continue to be less-than-optimal in reducing morbidity from this disease, necessitating the application of motivational constructs to encourage screening. This study constitutes important preliminary steps to understand how best to communicate CRC risk comprehensively in order to affect screening intentions.

ABSTRACT

Rates of colorectal cancer (CRC) screening continue to be less-than-optimal to reduce morbidity from this disease, necessitating the application of motivational constructs to motivate screening. Increasing perceptions of CRC risk should motivate screening. Yet inconsistent findings show that higher perceived CRC at times predicts screening, sometimes not. The inconsistent findings may be due to interventions that fail to address essential dimensions of what is required to understand CRC risk (Weinstein, 1999). These dimensions include: understanding the precursors to CRC, probability of occurrence, consequences, and methods to prevent or diminish the threat—most interventions address only one or two of these components. Thus, a central study aim is to develop an intervention that addresses each dimension of risk, and assess how people’s reactions/understanding on each dimension is related to intentions to screen for CRC. The likelihood of getting CRC is the most difficult component to convey (Bogardus, 1999); yet it forms a core dimension of CRC risk communicated often to the public. Likelihoods are typically expressed numerically and are often viewed as precise, contain an “aura” of “scientific accuracy and credibility. The disadvantages of using numbers to express likelihood include problems with people’s numeracy skills and the ability to make use and sense of small probabilities. Presenting what may appear as subjectively small probabilities may be counterproductive at motivating CRC screening. Hence, a second central study aim is to test whether inclusion of a standard display of likelihood information contextualized within the other dimensions of risk does decrease motivation to screen, and to develop and test an alternate means of displaying likelihood information designed to increase rather than decrease motivation to screen through the addition of a graphical display of risk probabilities. This study constitutes important preliminary steps to understand more fully how best to communicate CRC risk comprehensively to affect screening intentions, and in particular the unique effects of including two variants of likelihood information in the context of other essential dimensions of risk. Effects sizes and variance can be used to power a larger trial.