

Message Framing and Physical Activity Promotion in Colorectal Cancer Survivors

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Purpose/Objectives: To test effects of gain-framed versus loss-framed mailed brochures on increasing physical activity (PA) among colorectal cancer (CRC) survivors.

Design: Randomized trial with repeated measures at baseline, 1 month, and 12 months postintervention.

Setting: Mail recruitment from tumor registries.

Sample: 148 inactive CRC survivors who had completed primary therapy.

Methods: PA and constructs from the Theory of Planned Behavior (TPB) were assessed at baseline, 1 month, and 12 months. Participants were randomized to receive pamphlets describing PA benefits (gain framed) or disadvantages of not being physically active (loss framed). Baseline characteristics were compared using descriptive statistics. Repeated measures linear models were used to test PA changes.

Main Research Variables: Minutes of PA and TPB constructs.

Findings: Significant PA increases were observed in both study arms. Results did not differ by message frame. At one month, about 25% of previously inactive participants increased activity to national recommendations. Those who increased PA compared to those who did not had higher baseline scores on subjective norms, perceived behavioral control, and PA intentions.

Conclusions: Independent of message framing, mailed brochures are highly effective in producing within-subject short- and long-term increases in PA.

Implications for Nursing: CRC survivors may increase short- and long-term levels of PA by receiving inexpensive print brochures.

Among colorectal cancer (CRC) survivors, higher levels of physical activity (PA) postdiagnosis are related to lower risk of cancer recurrence and cancer-specific and all-cause mortality (Meyerhardt et al., 2009; Meyerhardt, Giovannucci, et al., 2006; Meyerhardt, Heseltine, et al., 2006). For example, among 1,825 stage I–III CRC survivors who were followed longitudinally for five years postdiagnosis, those who engaged in some level of PA after diagnosis had 25%–28% lower all-cause mortality risk compared to sedentary survivors (Baade et al., 2011). In addition, a meta-analysis of seven studies indicated that the risk of overall mortality decreases by 28% with an increase to roughly 150 minutes of moderate-intensity activity per week (Schmid & Leitzmann, 2014). Because of these and other PA benefits (e.g., improved quality of life), the American Cancer Society advises 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity weekly for cancer survivors (Doyle et al., 2006). Unfortunately, as many as 65% of CRC survivors fail to meet this recommendation (Blanchard, Courneya, & Stein, 2008).

Of the few interventions that have aimed to promote PA among CRC survivors, some have resulted in significant increases relative to baseline (Hawkes et al.,