

Bridging the Gap from Physical Activity and Cancer Research to Practice: a Knowledge Translation Strategy for Oncology Nurses

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BACKGROUND

- ❖ Research suggests that regular physical activity (PA) after cancer diagnosis may be a valuable supportive care strategy for improving quality of life (Speck et al., 2010).
- ❖ Relatively few health services are available that offer cancer-specific PA support to cancer survivors (Karvinen et al., 2013).
- ❖ Recent research suggests lack of knowledge and confidence may impede PA counselling practices of oncology nurses (Karvinen et al., 2012).
- ❖ Yet, oncology nurses are receptive to providing PA counselling to survivors (Karvinen et al., 2012).
- ❖ The following pilot trial tests the utility of an online knowledge translation intervention strategy for improving oncology nurses' PA counselling practices.

PURPOSE

- ❖ The primary purpose was to compare changes in oncology nurses' PA counselling practices after participating in a knowledge translation intervention compared to a control group.
- ❖ Secondary purposes were to examine the effect of the intervention on barriers to, and self-efficacy for, providing PA counselling to survivors.
- ❖ It was hypothesized that oncology nurses in the knowledge translation condition, compared to the control condition, would indicate improvements in PA counselling practices, self-efficacy for providing PA counselling, and reductions in barriers to providing PA counselling to cancer survivors over the course of the intervention.

METHODS

Participants & Procedure

- ❖ Participants (N=53) were recruited to the study through emails to oncology nurse listservs.
- ❖ Participants were randomly assigned to the knowledge translation condition (KTC) or control condition (CC).
- ❖ The intervention lasted 12 weeks.

Knowledge Translation Condition (KTC)

- ❖ KTC participants completed six online learning modules and quizzes consisting of: (1) Benefits of PA, (2) PA Guidelines, (3) Motivational Interviewing, (4) Motivational Strategies for Behaviour Change, (5) Strategies for Keeping Active, and (6) Barriers to PA Counselling.
- ❖ KTC participants were given individual password protected logins.
- ❖ Each module was completed within a two week time frame.

Condition Condition (CC)

- ❖ CC participants were given access to the modules after completing all measures

Measures

- ❖ *PA Counselling Practice* was assessed by modified scales by Sherman & Hershman (1993) and Walsh et al. (1999) and queried the percentage of patients that participants provided PA counselling to in the last month.
- ❖ *Self-Efficacy for PA Counselling* was measured using a modified version of the Counsellor Activity Self-Efficacy Scale (Range: 0-9; Lent et al., 2003).
- ❖ *Perceived Barriers to PA Counselling* was assessed by asking participants to rate five barriers to PA counselling based on two previous studies assessing barriers to PA promotion by oncology clinicians (Range: 1-5; Karvinen et al., 2010; 2012).

Statistical Analyses

- ❖ Repeated measures ANOVAs controlling for baseline PA counselling were used to assess the primary and secondary outcomes. Cohen's effect sizes (*d*) were calculated.

RESULTS

- ❖ The sample was on average 45.7±10.7 years old, the mean years of practice was 19.5±11.4, 52 (98%) were female, 44 were Caucasian (82%), and 40 (75%) lived the United States while 13 (25%) resided in Canada. Five (9.4%) reported having received formal training in PA.
- ❖ Results indicated a non statistically significant increase in the percentage of patients the KTC provided PA counselling to from baseline to postintervention (from 50% to 61% compared to no change in the control group; $p=.174$; $d=.37$).

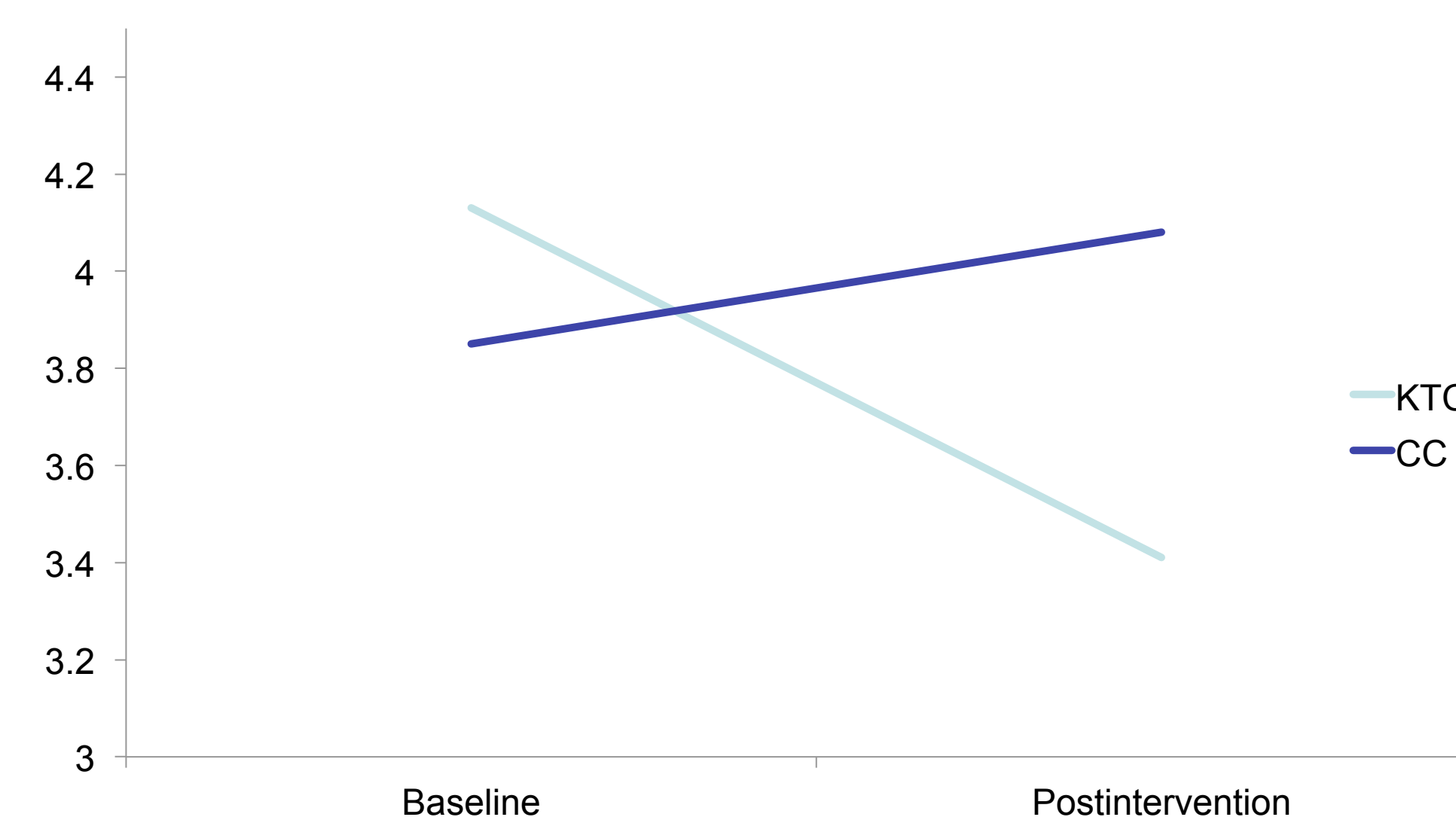


Figure 1. Changes in barriers for PA counselling: unsure what PA to recommend (range 1-5).

- ❖ A significant decrease was found in several barriers for PA counselling in the KTC compared to the CC, most notably in "unsure what PA to recommend" ($F=4.30$, $p=.043$, $d=0.58$; Figure 1) and "unsure that PA is safe for patients" ($F=9.15$, $p=.004$, $d=0.89$).
- ❖ A trend was found suggesting an increase in self-efficacy for providing PA counselling in the KTC compared to the CC ($F=3.11$, $p=.08$, $d=0.48$; figure 2).

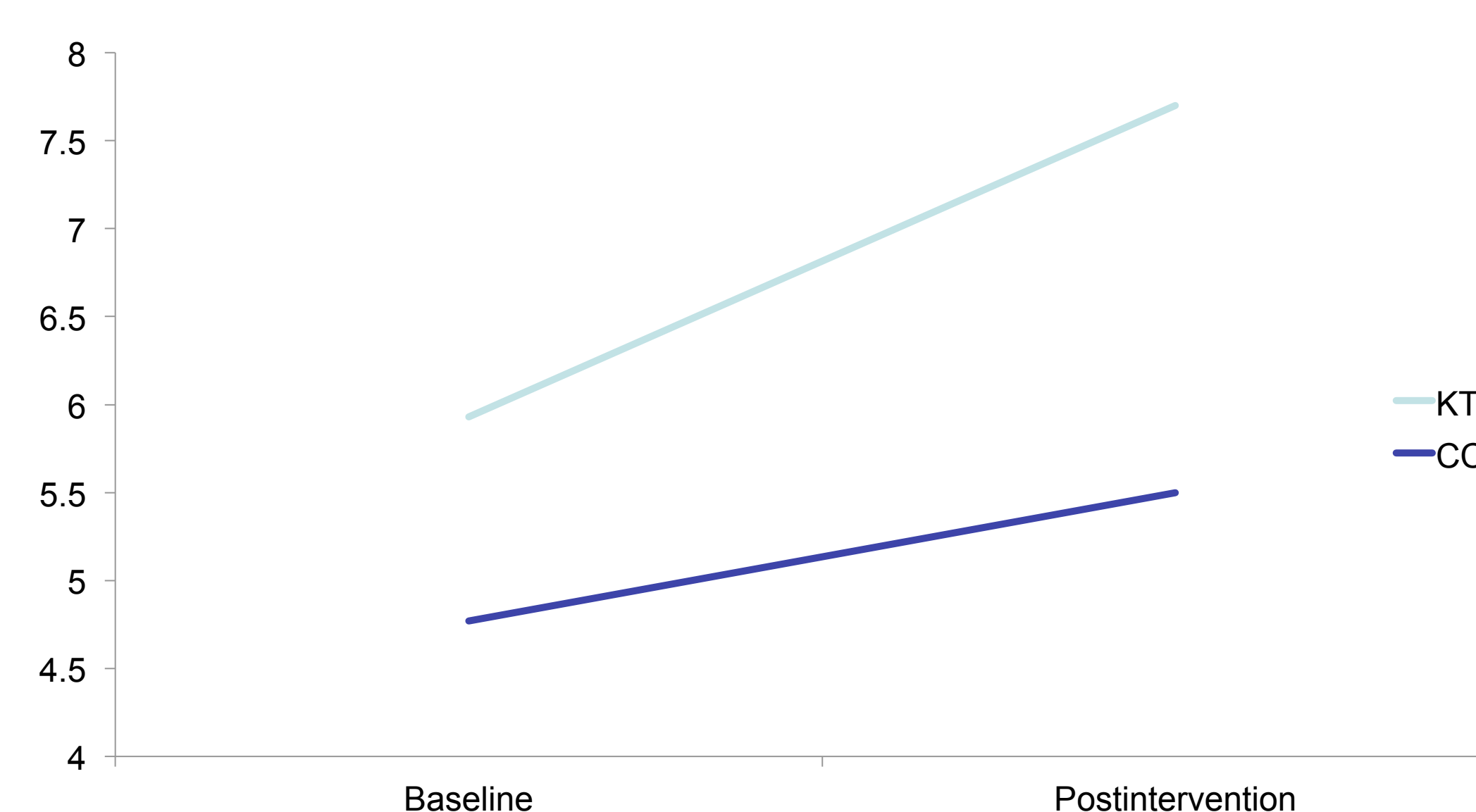


Figure 2. Changes in self-efficacy for PA counselling (range 0-9).

DISCUSSION

- ❖ The knowledge translation intervention strategy may have resulted in a reduction in barriers to providing PA counselling to patients.
- ❖ Although changes in the KTC in self-efficacy for providing PA counselling and actual PA counselling practices did not reach statistical significance, Cohen's effects sizes (*d*) ranged from small-medium to medium. Future trials may use more interactive opportunities within the learning modules to further increase PA counselling practices and self-efficacy.
- ❖ These pilot data suggest that an online knowledge translation strategy may be a cost-effective means of providing oncology nurses' with tool for improving PA counselling. Larger trials are warranted

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