

AB104. 37. The effect of a community-based pre-operative exercise programme on health-related components of fitness and health-related quality of life in major surgical oncological patients: a pilot study

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Background: Low pre-operative fitness levels are linked to poor post-operative outcome. Pre-operative exercise training improves fitness and health-related (HR) quality of life (HRQoL) following hospital-based programmes. This study assessed the feasibility of community-based pre-operative exercise training and its effect on HR components of fitness and HRQoL.

Methods: Forty prostate and colorectal cancer participants were recruited and assessed to measure heart rate components of fitness: strength; body mass index (BMI),

cardiorespiratory fitness and HRQoL. A pre-operative exercise training programme was prescribed in the time window available prior to surgery and repeat assessments were conducted prior to surgery (within 1 week).

Results: Thirty-two participants completed the study (19 prostate and 13 colorectal). The mean [standard deviation (SD)] duration of exercise training was 4 [2] and 3 [3] weeks for prostate and colorectal cancer participants, respectively. Adherence rates were >80%. From baseline to post-intervention, there were significant improvements in lower body strength for the prostate ($P=0.014$) and colorectal cancer groups ($P=0.001$). For prostate cancer participants, there was a significant reduction in BMI ($P=0.016$), while improvements for upper body strength and cardiorespiratory fitness were not statistically significant ($P>0.05$). There were significant improvements in HRQoL for the prostate ($P=0.006$) and the colorectal cancer groups ($P=0.025$).

Conclusions: Community-based pre-operative exercise training, within a short pre-operative time window, is feasible and increases heart rate components of fitness and HRQoL.

Keywords: Surgical-oncology; community; feasibility; pre-operative exercise training

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