**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**

Lisa Loughney¹, Ronan Cahill², Kiaran O’Malley³, Noel McCaffrey¹, Brona Furlong¹

¹School of Health and Human Performance, Dublin City University, Dublin, Ireland, ²Department of Colorectal Surgery, ³Department of Urology Surgery, Mater Misericordiae University Hospital, Dublin, Ireland

**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. Adherences 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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