

## **‘Moving On’ from Cancer: The effects of engaging in a 12 week community-based exercise programme on cancer survivors’ physical and psychological well-being**

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**Background:** MedEx Wellness is a community-based chronic illness rehabilitation programme located at Dublin City University. It offers exercise classes in a medically supervised environment to patients with a range of chronic illnesses. MedEx ‘Move On’ is the oncology rehabilitation programme that caters for cancer survivors. This study aimed to determine the effect of ‘Move On’ on cancer survivors’ physical and psychological wellbeing.

**Methods:** Adults with an established diagnosis of cancer, who have completed their adjunctive therapy, are referred to ‘Move On’. Participants attend two 60 minute supervised exercise classes per week for 12 weeks. Recruitment to the ‘Move On’ programme occurs every 12 weeks, with approximately 30 participants attending per cycle. Classes are led by exercise specialists and involve a combination of aerobic and resistance training. A single arm pre-test, post-test design was used. At baseline and week 12, assessments of cardiorespiratory fitness (10m shuttle test), strength (timed sit-to-stand test), flexibility (sit-and-reach test), quality of life (FACT-G Questionnaire), depression (PHQ-8 questionnaire) and social support (Social Support for Exercise Survey) were performed. Paired sample *t*-tests were used to test differences.

**Results:** 169 cancer survivors were referred between January 2015 and January 2016. 24 participants were non-uptakers (attended assessment only). The programme completion rate was 69% (N=100). There was a statistically significant increase in cardiorespiratory fitness (N=68; 69.1±18.3 to 83.2±18.3 shuttles, *p*<.01), strength (N=94; 17.5±3.9 to 14.6±3.9 secs, *p*<.01) and flexibility (N=93; 11.0±9.0 to 12.1±9.8 cms, *p*<.05). Statistically significant increases were also observed for participants’ perceived social support for exercise from friends (N=54; 2.1±.98 to 2.5±.99, *p*<.01) and physical (N= 49; 21.4±4.1 to 23.7±4.1, *p*<.01), emotional (N=49; 18.5±3.9 to 20.7±2.7, *p*<.01) and functional (N=50; 19.0±5.8 to 21.3±4.9, *p*<.01) well-being. There was no significant difference in cancer survivors’ depression levels from baseline to week 12 (N=50; 3.5 ± 4.2 to 3.8 ± 3.4, *p*<.01).

**Discussion:** MedEx ‘Move On’ significantly improved the physical and psychological wellbeing of cancer survivors. However, this study had a number of limitations including a small sample size and the lack of a control group. Consequently, the research findings should be interpreted with caution.

**Implications:** Exercise can play a key role in the management of long term treatment related side effects and community-based exercise programmes are well placed to support cancer survivors to increase their physical and psychological well-being.

**Word Count:** 379

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