A Pilot Evaluation of a Multimodal Weight Management Program in Community Cancer Rehabilitation in Singapore

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Background
POWER is a community-based weight management programme for cancer patients, delivered as part of rehabilitation to support recovery at Singapore Cancer Society. Maintaining healthy weight remains a key challenge following treatment, particularly in the presence of ongoing side effects. This programme provides guidance from oncology dietitians and exercise trainers to promote patient empowerment and long-term health benefits. Given the association between excess weight and increased cancer recurrence risk, continued supportive care through community-based programmes is essential.

Aim
This study aimed to evaluate the feasibility, acceptability and preliminary effectiveness of a multimodal weight management programme for cancer patients in a community rehabilitation setting in Singapore.

Methods
Ten cancer patients from the rehabilitation programme were enrolled in a 6-month weight management programme which includes nutrition workshops, a structured exercise component (fortnightly group sessions and thrice-weekly rehab gym access), peer support, and mobile lifestyle tracking. Outcome measures were assessed using Bioelectrical Impedance Analysis. Changes from baseline to 6 months were analysed using Wilcoxon Signed-Rank and Friedman tests. Effect sizes (r) were calculated to evaluate clinical significance.

Results
Eight out of ten enrolled patients (median Body Mass Index [BMI] 28.6kg/m²; aged 50-69 years) completed the programme. At 6 months, patients demonstrated significant reductions in weight, BMI, and percentage body fat, with consistently large effect sizes (all $p<0.05$, $r>0.80$). Median weight loss was 3.85kg at Month 5 ($p=0.018$) and 5.15kg at Month 6 ($p=0.002$). Notably, muscle mass remained statistically stable. Functional exercise capacity significantly improved, as measured by the 2-Minute Walk Test ($p=0.017$, $r=0.84$). While no statistically significant differences were observed in EQ-5D scores or index values, the programme acceptability was high, with all patients ($n=8$) reporting satisfaction with the programme and facilitator support. Most patients (87.5%) were satisfied with the tracking application. All patients reported high motivation to engage in exercise and confidence in maintaining healthy eating habits after programme completion.

Conclusion
Our findings suggest that a multimodal programme at a community cancer rehabilitation setting is a feasible and acceptable approach to improving health outcomes. Patient feedback indicates good potential for scalability across centres. Further research with larger samples is needed to evaluate the full impact of these interventions, including their effects on quality of life.

Image(s):

Bibliographic references

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