

EFFECTS OF CANCER REHABILITATION INTERVENTIONS FOR WOMEN TREATED FOR GYNAECOLOGICAL CANCER: A META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS

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INTRODUCTION

- Health-promoting behaviours have a significant impact on the health-related quality of life (HRQoL) of women treated for gynaecological cancer (GC). However, there is insufficient practice of health-promoting behaviours by women with GC.
- Cancer rehabilitation interventions targeting health-promoting behaviours are needed to improve their physical and psychological health.
- This study aims to summarise and analyse the available evidence on the effects of cancer rehabilitation interventions on physical activity, healthy dietary habits, psychological distress, and HRQoL among this cohort.

METHODS

Population	➤ Included— women treated for GC and completed GC treatment ➤ Excluded— undergoing active treatment, with metastatic cancer
Intervention	➤ Included—rehabilitation interventions targeting overall health and health-promoting behaviours (i.e., physical activity, healthy eating habits, and alcohol and smoking cessation)
Comparison	➤ Included— any control intervention, such as standard or usual care, or waitlist and attention control
Outcomes	➤ Included— health-promoting behaviours, HRQoL, psychological distress, or combinations thereof with other outcomes
Study design	➤ Included— randomised controlled trials (RCTs)
Others	➤ Excluded— non-English articles, protocols, conference abstracts, ongoing studies

- A systematic search of **13 English databases and 2 Chinese databases** was performed to identify relevant articles from the inception of the databases until **February 2024**

Methodological quality appraisal: Cochrane risk-of-bias tool for randomised trials (RoB 2)

Data analysis and synthesis:

- Review Manager (RevMan) 5.1 was used for meta-analysis
- Standardised mean differences (SMDs) and 95% confidence intervals (CIs)
- Statistical heterogeneity of the studies was conducted using the I^2 test

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RESULTS

- A total of 8 studies (5 pilot RCTs and 3 main RCTs) comprised of 797 GC patients were included in the meta-analysis
- **Risk of bias:** 1 study was rated as 'low risk of bias'; 7 studies were rated as 'some concerns of bias'
- **Intervention characteristics:**
 - Theory: Social cognitive theory
 - Format: Technology-based approach
 - Components: (1) Health education on health-promoting behaviours; (2) Health behaviours goal setting and behaviour modification; (3) Social support; (4) Stress management and emotion regulation; (5) Counselling and monitoring; (6) Coping skills and problem-solving training.

CONCLUSIONS

- Cancer rehabilitation interventions demonstrate significant effects on increasing physical activity and improving HRQoL among women treated for GC, with sustainable effects.
- Implications for intervention design have been identified.
- However, there remains limited evidence on the effectiveness of interventions in adopting healthy eating and alleviating psychological distress.

Outcome	Meta-analysis	
	Time point	Cohen's <i>d</i>
Physical activity	Immediate post-intervention	0.32 (0.02, 0.63), <i>p</i>=.04, <i>I</i>²=32%
	6-month post-intervention	0.59 (0.22, 0.96), <i>p</i>=.002, <i>I</i>²=0%
	12-month post-intervention	0.50 (0.13, 0.88), <i>p</i>=.008, <i>I</i>²=4%
Healthy eating self-efficacy	Immediate post-intervention	0.20 (-0.13, 0.53), <i>p</i> =.24, <i>I</i> ² =0%
Caloric intake	Immediate post-intervention	-0.42 (-0.78, -0.05), <i>p</i>=.02, <i>I</i>²=0%
	6-month post-intervention	-0.29 (-0.65, 0.07), <i>p</i> =.12, <i>I</i> ² =0%
	12-month post-intervention	-0.28 (-0.64, 0.08), <i>p</i> =.12, <i>I</i> ² =0%
Anxiety	Immediate post-intervention	0.19 (-0.06, 0.43), <i>p</i> =.13, <i>I</i> ² =0%
Depression	Immediate post-intervention	-0.75 (-2.12, 0.62), <i>p</i> =.28, <i>I</i> ² =27%
HRQoL	Immediate post-intervention	0.50 (0.03, 0.96), <i>p</i>=.04, <i>I</i>²=73%
	3-month post-intervention	0.29 (-0.18, 0.75), <i>p</i> =.22, <i>I</i> ² =0%
	6-month and 9-month post-intervention	0.28 (0.05, 0.50), <i>p</i>=.01, <i>I</i>²=0%