INPLASY PROTOCOL

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None declared.

Effects of Lifestyle Interventions on Health and life Quality of Colorectal Cancer Survivors: a Meta-analysis

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Review question / Objective: To assess whether lifestyle intervention can bring good health outcomes and higher quality of life (QOL) for colorectal cancer (CRC) survivors by meta-analysis.

Condition being studied: PubMed, Embase, Web of Science and Cochrane Library were systematically searched to obtain relevant literature published before May 2021. The required data were extracted and summarized to compare the QOL, social psychological results, physical activity, body composition and fatigue level between lifestyle intervention and routine nursing.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 January 2022 and was last updated on 17 January 2022 (registration number INPLASY202210087).

INTRODUCTION

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between lifestyle intervention and routine nursing.

METHODS

Search strategy: Databases such as PubMed, Embase, Web of Science and Cochrane were searched to obtain studies published before June, 2021. The retrieval key words were ("colorectal cancer" or "rectal cancer" or "colon cancer") and ("lifestyle" or "diet" or "exercise" or "resistance training" or "swimming" or "yoga" or "Tai Chi" or "Qigong" or "jogging" or "smoke" or "drink") and ("randomized controlled trial ").

Participant or population: Primary colorectalcancer (≥18 years of age).

Intervention: Physical activity (PA), diet, and other health behaviors, and the intervention program could be individual or group, home, community, or exercise facility-based, and included telephone instruction and written materials.

Comparator: Routine nursing.

Study designs to be included: Randomized controlled trial.

Eligibility criteria: (1) It was a randomized controlled trial (RCT) involving adult survivors (≥18 years of age); (2) primary colorectal cancer and all participants had completed treatment; (3) the purpose of the study was to compare the effects of lifestyle intervention with usual care for colorectal cancer survivors; (4) the intervention included physical activity (PA), diet, and other health behaviors, and the intervention program could be individual or group, home, community, or exercise facility-based, and included telephone instruction and written materials; (5) follow-up was longer than 6 weeks; (6) the study reported the outcomes of intervention, including type of exercise, frequency, intensity, changes in food, energy, quality of life, fatigue, mental structure, BMI, waist circumference, fat mass or metabolic growth factors, and soon.

Information sources: PubMed, Embase, Web of Science and Cochrane

Main outcome(s): type of exercise, frequency, intensity, changes in food, energy, quality of life, fatigue, mental structure, BMI, waist circumference, fat mass or metabolic growthfactors

Quality assessment / Risk of bias analysis: The bias risk of the literature was evaluated according to the Cochrane Collaboration bias risk tool. Two researchers applied bias risk tools respectively. When there are different opinions, they should discuss it with a third researcher.

Strategy of data synthesis: Effect sizes were assessed by using weighted mean differences (WMD) and corresponding 95% confidence intervals (CI). However, if the method of scoring the data was not consistent among the included studies, the data should be assessed by using the standardized mean difference (SMD) and the corresponding 95% CI. When I2 < 50% and P > 0.05, no statistically significant heterogeneity was considered and a fixed-effects model was used, otherwise a random-effects model was used. Heterogeneity in the study was assessed based on I2 when there was a contradiction between I2 and P values. Meta-analysis was performed by using Stata 16.0 software.

Subgroup analysis: Subgroup analysis was used to investigate sources of heterogeneity.

Sensitivity analysis: Sensitivity analysis to verify the robustness of the findings.

Country(ies) involved: China.

Keywords: Colorectal Cancer; Lifestyle Intervention; Quality of Life; Fatigue; Physical Activity

Contributions of each author:
Author 1 - Ting Zhou.
Author 2 - Wenjie Cai.
Author 3 - Weiqiong Wang.
Author 4 - Lina Wang.

ZT, CWJ, WLN: Critical revision of the manuscript; **ZT, CWJ, WLN:** Substantial contribution to the conception and design of the work, manuscript drafting; **ZT, CWJ, WWQ:** Acquisition, analysis, and interpretation of the data; **ZT, CWJ, WWQ, WLN:** Revising the manuscript critically, final approval of the version to be published. All authors.