

Activity and nutrition interventions for older adults with cancer: scoping review

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Background

Unmet physical activity and nutritional needs are key concerns for older adults with cancer; these are known to impact health-related quality of life (HRQoL) significantly.

Aim

To summarize the current literature regarding activity and nutrition based interventions for older adults with cancer.

Methods

A priori eligibility criteria:

- 1) delivered a lifestyle intervention for nutrition and/or physical activity to people with any cancer diagnosis,
- 2) included a measure of HRQoL,
- 3) over 60 years or at least 50% over 60 years with data analyses by age group, and,
- 4) randomized controlled trials.

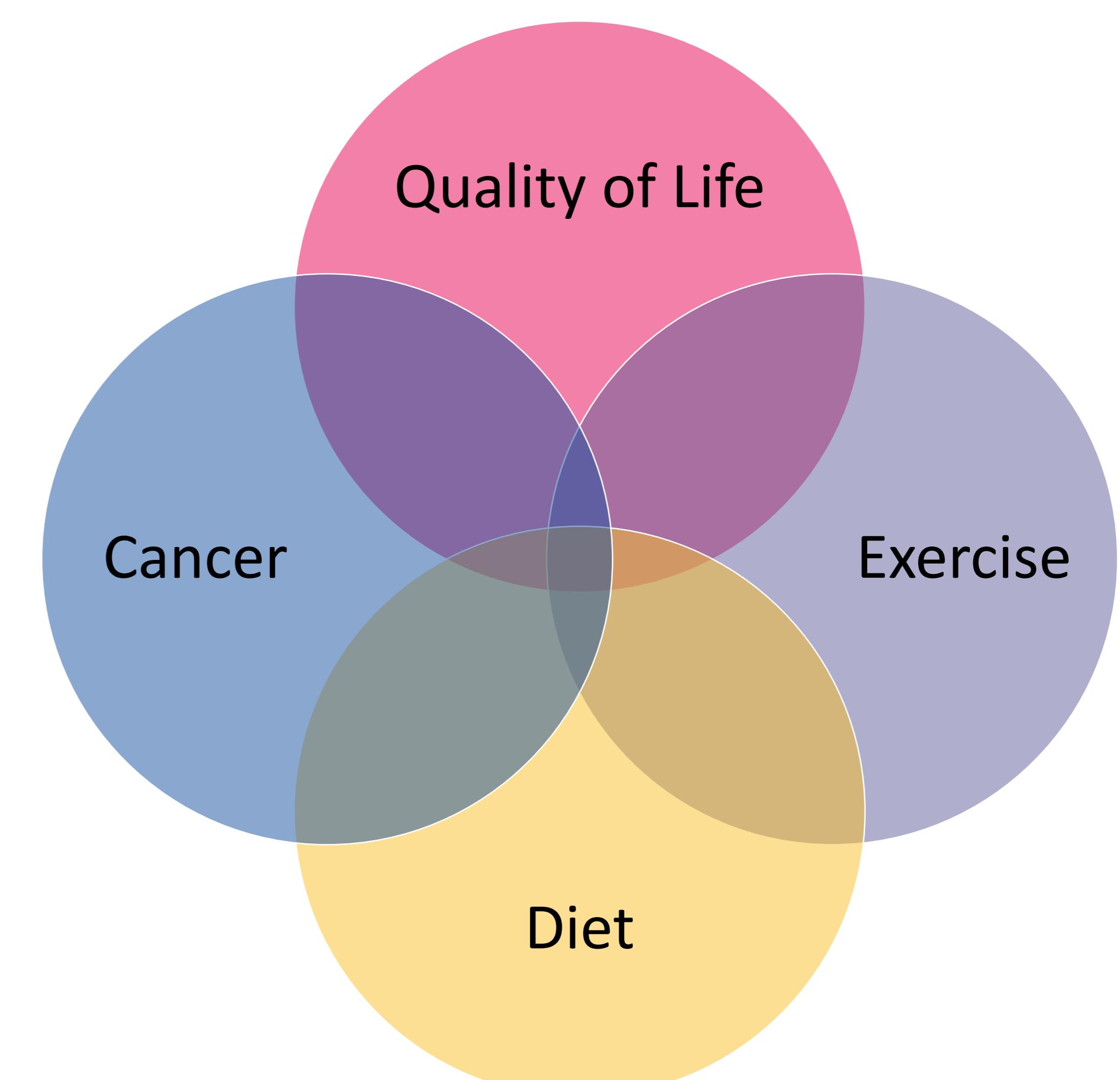
Studies were identified through a structured search of all publication years (until 30 May 2019) in the following electronic databases: Cochrane Central, Medline, Embase, and, Cinahl.

Detailed information related to the intervention groups was extracted, including:

- 1) type of intervention,
- 2) intervention delivery methods,
- 3) all components of intervention,
- 4) study duration and measurement timing, and,
- 5) comparator group information.

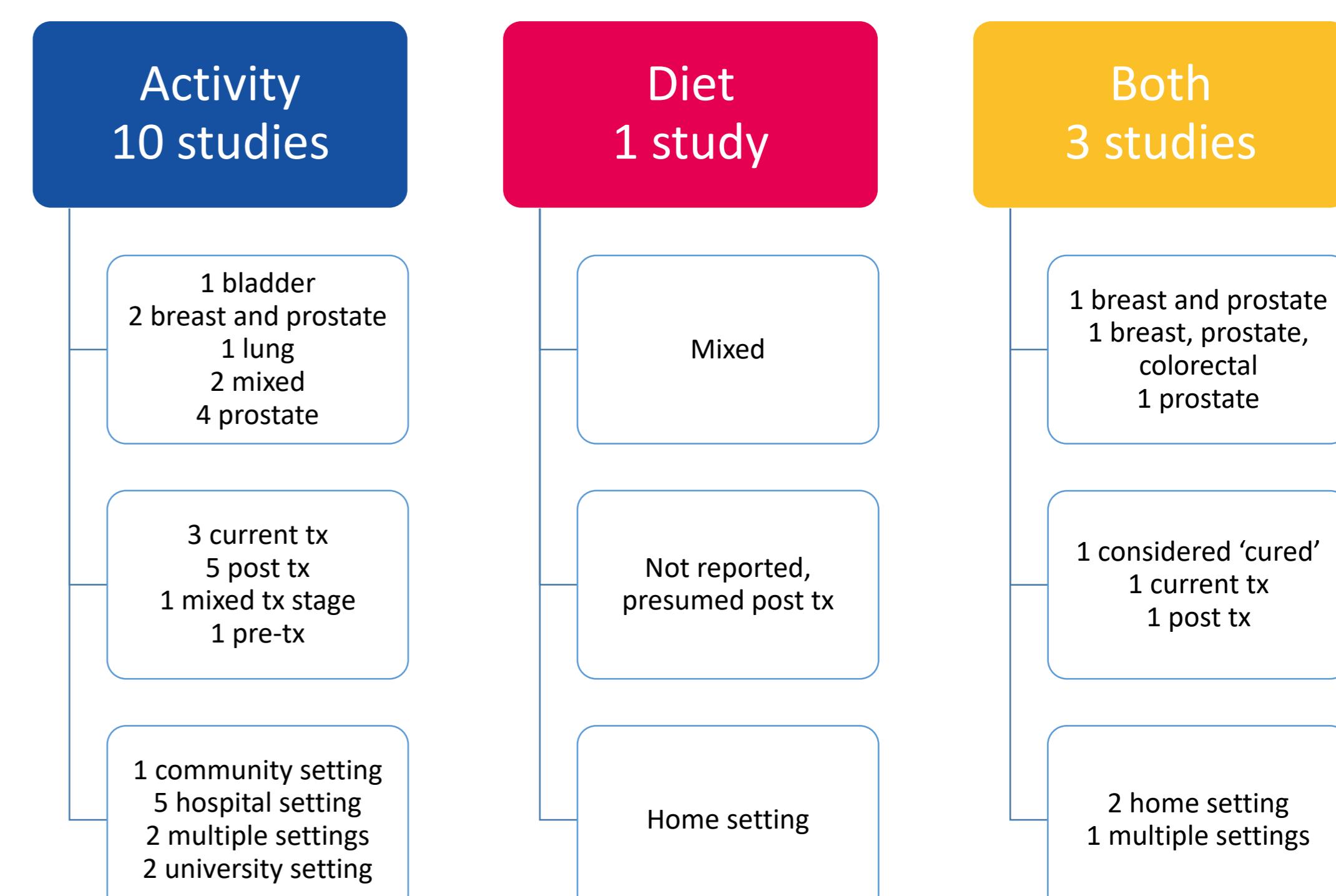
The primary efficacy outcomes of interest for this review were measures related to QoL or HRQoL.

The primary outcomes for each study were identified and noted.



Results

- One 3-arm RCT and thirteen 2-arm RCTs for total n=1660.
- One study described as a pilot; seven as feasibility RCTs.
- Duration ranged from seven days to one year.
- Seven studies took place in the USA, two in Canada, and one each in China, Japan, Korea, Sweden, and United Kingdom.
- Four used a theory: Social Cognitive Theory, Transtheoretical Model, and Social Ecological Model.
- Other studies referenced habit formation, autonomy, self-efficacy, and action/coping planning.
- 57% had significant between group differences in QoL measures
- QoL trends overall were positive in 8 studies, neutral in 4 studies, and negative in 2 studies.



Discussion

This work identified key gaps in the evidence supporting rehabilitation-based programmes for older adults with cancer, and a paucity of work including nutrition interventions alongside those aiming to improve physical activity. Development of acceptable and relevant interventions, flexible across the cancer continuum and cancer type and stage are needed. One size is unlikely to fit all.

Future research should be underpinned by behavior change theory and include studies to explore how best to support attendance and completion by those with frailty and sarcopenia. Learning from general older adult populations as well as rehabilitation literature in other disease groups (e.g. chronic obstructive pulmonary disease) will help advance this research

Acknowledgments

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