

Project Title	What are the unmet supportive care needs of men affected by testicular cancer: A systematic review
Supervisor	Professor Catherine Paterson (Clinical Chair Nursing)
Address	Faculty of Health School of Nursing, Midwifery & Public Health University of Canberra, Building 10, Kirinari St, Bruce, ACT, 2617 & Canberra Health Services Synergy Research Centre Nursing and Midwifery Canberra Hospital Woden ACT 2606
Telephone	0416860535
Email	catherine.paterson@canberra.edu.au

Lead discipline (please select one)

Nursing

Allied Health

Medicine

Pre-clinical

Health Economics

Biostatistics

Value-based Healthcare

Epidemiology

Outline of the project

The summer vacation student will work with an experienced health services clinical academic to undertake a systematic review in cancer. The aim of this project is to support the student to develop their skills in evidence synthesis, and experience of dissemination through publication and presentation at national meetings. It is intended that this project will make a worthy contribution to the existing literature and help inform next steps for research and models of supportive care delivery.

Background

Testicular cancer is considered the most prevalent type of cancer among young men, with more than 71, 000 new cancer diagnoses made in 2018 [1]. People affected by testicular cancer have good survival outcomes due to effective and timely treatment options, which include: orchidectomy, radiotherapy and cisplatin-based chemotherapy [2]. Testicular cancer represents a significant burden and many men living with testicular cancer can experience a sequelae of unmet supportive care needs, reduced quality of life and emotional distress [3]. Supportive care is defined as the provision of the necessary services

for those living with or affected by cancer to meet their physical, emotional, social, psychosocial, informational, spiritual and practical needs during the diagnostic, treatment, and follow-up phases, encompassing issues of survivorship, palliative care and bereavement [4]. This definition provides a holistic person-centred lens to the classification of supportive care needs for people affected by testicular cancer to inform the evidence synthesis for this systematic review. Therefore, the aim of this systematic review is to understand what the unmet supportive care needs of men are affected by testicular cancer, and what are the most frequently reported individual domain of unmet needs.

Proposed research methods

Design: An Integrative Systematic Review (reported according to PRISMA Guidelines)

Eligibility Criteria

Types of studies

- Qualitative and quantitative methods irrespective of research design.
- Commentaries, editorials, and studies where unmet supportive care needs are not reported will be excluded.

Types of participants

- Participants (≥ 18 years of age) with a confirmed diagnosis of testicular cancer and their partners.
- All stages of disease and treatment modalities will be included
- Studies conducted with patients with mixed cancer groups, except when a separate sub-group analyses of only testicular cancer participants are reported will be included.

Types of Outcomes measures

The primary outcome of this review was non-oncological outcomes related to:

- Unmet supportive care needs (e.g. the Supportive Care Needs Survey [5] and qualitative experiences.

Literature Search

The CINAHL, MEDLINE, PsychINFO, (date cut off 1990 to present, limited to English language). Key words (testicular cancer, neoplasms, unmet needs, health care need, patient care, psychological assessment) will be mapped to each electronic database using the appropriate MeSH term, or used free search terms. The search architecture will use a wide range of keywords and free text items to increase the sensitivity and specificity of the searches. Additional searches were performed in Google Scholar, and Google for grey literature. The references of relevant systematic reviews and original articles included in this current review will be screened for studies potentially meeting our inclusion criteria.

Data collection and analysis

Selection of studies

Following de-duplication, the summer vacation student and CP will screen the titles and abstracts of the identified records for eligibility. The full text of all potentially eligible records will be retrieved and screened linking together multiple records of the same study in the process. Any disagreements were resolved by discussion.

Data extraction and management

The summer vacation student will extract the outcome data and compare for accuracy with CP. Any disagreements will be resolved by discussion. The extracted data will include 'characteristics of included studies' (study design; countries and institutions where the data were collected; participant demographic and clinical characteristics, unmet supportive care needs; the numbers of participants who were included in the study; losses and exclusions of participants, with reasons).

Assessment of risk of bias in included studies

Quality assessment of individual research studies will be conducted in parallel with the data extraction using the Mixed Methods Assessment Tool [6].

Data synthesis

A narrative synthesis approach to summarise the evidence. This will involve tabulation of primary research studies, identifying similarities and differences within and between studies, and seeking explanations for these differences. Specifically, this will involve the following steps: data reduction and sub-group classification based on levels of evidence and the review question, narrative data comparison (iterative process of making comparisons and identifying relationships) and finally, drawing conclusions [7]

Preferred study discipline being undertaken by the student

Given the clinical multidisciplinary importance of this project it will be open to any health care professional student group, irrespective of discipline.

Potential benefits to the student and to the department

This project will benefit the student to develop and gain experience of evidence synthesis with an experienced clinical academic in cancer. This review will provide an original contribution to the literature to support the student to gain experience of dissemination through publication to help build their professional development and curriculum vitae. Where possible, the student will be supported and encouraged to present the results of this project at conference (CHARM), Synergy Grand Rounds and other relevant national meetings. This review will help inform clinical practice guidelines, models of supportive care and future research directions for people affected by testicular cancer.

Department within ACT Health Directorate / Canberra Health Services where the student will be based

This student will have the opportunity to work within the Synergy Nursing and Midwifery Research Centre. They will be provided with a desk, computer and access to printing facilities with expert librarian input. They will work closely with their academic mentor in Synergy (where possible) face-to-face to ensure optimal support and timely access to their academic mentor to promote a positive research experience and timely completion of their summer project.

Please submit form to preclinical.research@act.gov.au

1. Bray, F., et al., *Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries*. CA Cancer J Clin, 2018. **68**(6): p. 394-424.
2. Masterson, T.A. and S.T. Tagawa. *A 25-year review of advances in testicular cancer: Perspectives on evaluation, treatment, and future directions/challenges*. in *Urologic Oncology: Seminars and Original Investigations*. 2021. Elsevier.
3. Alexis, O., A.O. Adeleye, and A.J. Worsley, *Men's experiences of surviving testicular cancer: an integrated literature review*. J Cancer Surviv, 2020. **14**(3): p. 284-293.
4. Paterson, C., et al., *Identifying the supportive care needs of men and women affected by chemotherapy-induced alopecia? A systematic review*. Journal of cancer survivorship, 2021. **15**(1): p. 14-28.
5. Boyes, A., A. Girgis, and C. Lecathelinais, *Brief assessment of adult cancer patients' perceived needs: development and validation of the 34-item Supportive Care Needs Survey (SCNS-SF34)*. Journal of evaluation in clinical practice, 2009. **15**(4): p. 602-606.
6. Pace, R., et al., *Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review*. International journal of nursing studies, 2012. **49**(1): p. 47-53.
7. Whittemore, R. and K. Knafl, *The integrative review: updated methodology*. Journal of advanced nursing, 2005. **52**(5): p. 546-553.