Non-pharmacological management of cancer-related fatigue in men treated for prostate cancer

David Anthony Larkin

Joanna Briggs Institute
School of Translational Health Sciences

Faculty of Health Sciences

The University of Adelaide

August 2014

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Abstract

Cancer-related fatigue is the most common, distressing complaint reported by cancer patients and the most frequently reported long-term side effect of treatment for prostate cancer. Despite this, cancer-related fatigue has not received serious attention from health professionals or researchers, particularly in relation to men with prostate cancer. It is important for healthcare professionals to understand effective non-pharmacological interventions for treating cancer-related fatigue.

The aim of the research presented in this thesis was to determine effective non-pharmacological interventions for managing cancer-related fatigue in men treated for prostate cancer. Following on from this, this research aimed to advance the existing body of knowledge regarding effective non-pharmacological treatment of fatigue in men with prostate cancer by testing an intervention that has not been previously studied in this cohort.

To determine effective non-pharmacological interventions, a systematic review was conducted that found eight studies involving men treated for prostate cancer. The results of the review revealed one intervention, physical activity, which was effective in reducing cancer-related fatigue in the cohort of interest. Two psycho-educational interventions, cognitive behavioural therapy and intensive education, demonstrated some benefit in reducing cancer-related fatigue. The findings of the systematic review highlighted the need for further research into interventions not based on physical activity, so that a greater range of management options are available to men treated for prostate cancer who may be experiencing cancer-related fatigue.

In an effort to achieve high quality research, a conceptual framework was developed, which incorporated two existing conceptual models. Each of the two models had inherent limitations for the intended interventional studies, however combined into an overarching conceptual framework, the subsequent research builds upon work previously undertaken and adds to the body of knowledge in this field. The conceptual framework was used to develop and guide two pilot randomised controlled trials of an energy conservation and management intervention for men treated for prostate cancer. The two studies were designed to examine the effectiveness of this intervention for reducing cancer-related fatigue in two subgroups of the cohort of interest: men commencing prostate cancer treatment and men who have completed treatment within the previous twelve months.

The results of both pilot studies were encouraging and demonstrated that an energy conservation and management intervention was effective in reducing cancer-related fatigue and increasing

vigour and functional performance in the population studied. A further finding was that the intervention appeared to have had a greater benefit if delivered early in the patient's treatment journey compared to providing the intervention after treatment for prostate cancer was complete.

The findings presented in this thesis can be used by healthcare professionals to inform the decisions they make in their clinical practice for men treated for prostate cancer who may be experiencing cancer-related fatigue. In order to provide patient-centred care, healthcare professionals need to be aware of a range of interventions that can be used to effectively manage the problem of cancer-related fatigue. Further research is required to corroborate the findings of the pilot studies and further develop the body of knowledge in this field.

Thesis Declaration

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25 August 2014

Acknowledgements

I would like to express my sincere gratitude and appreciation to:

Dr Edoardo Aromataris, for invaluable advice and guidance, his patience and for always being available no matter how hectic his work schedule

Professor Violeta Lopez, for her encouragement to undertake postgraduate study, her unending support throughout the journey and her invaluable advice and guidance

Ms Suzanne Edwards, for her invaluable advice and support for the statistical analyses of the interventional studies

Ms Jill Parke, for being the perfect "sounding board", never faltering in her belief in me and inspiring me to keep going

Mr Tarkan Tez, for his support during the recruitment period maintaining the randomisation lists and allocation sequences

All the men with prostate cancer who have given me their time and commitment, without which this work would not have been realised; and the medical officers and nurses who supported the research undertakings by referring potential participants

Garry Sutherland, for his support in various ways that gave me the time and ability to be able to undertake this adventure

My mother, Marilyn Manfred, for the thrill she has got from me undertaking this adventure and for keeping me on target by regularly asking, "how's the thesis?"

Key to abbreviations

ADT	Androgen Deprivation Therapy
AS	Active surveillance
ASR (W)	Age standardised incidence or mortality rate (world)
BNI	Brief Nursing Intervention
CBT	Cognitive Behavioural Therapy
CIS-fat	Checklist Individual Strength (fatigue subscale)
CRF	Cancer-related fatigue
CRPC	Castration-resistant prostate cancer
CSM	Common Sense Model of illness representation
DRE	Digital rectal examination
EBHC	Evidence-based healthcare
EBRT	External beam radiotherapy
ECAM	Energy conservation and management
FACT-F	Functional Assessment of Cancer Therapy – Fatigue
FPI	Functional Performance Inventory
FSI	Fatigue Symptom Inventory
FSS	Fatigue Severity Scale
HPA	Hypothalmic-pituitary-adrenal
HEAC	Health Education Attention Condition
ICD	International Classification of Diseases
ICD-10	International Classification of Diseases – 10th Revision
IFM	Piper's Integrated Fatigue Model
ITT	Intention-to-treat
JBI	Joanna Briggs Institute
MAStARI	Meta Analysis of Statistics Assessment and Review Instrument
MFI	Multidimensional Fatigue Inventory
MICD	Minimally important clinical difference
NCCN	National Comprehensive Cancer Network
ONS	Oncology Nursing Society
PA	Physical Activity
PFS	Piper Fatigue Scale

PFS-R	Piper Fatigue Scale - Revised
POMS	Profile of Mood States
PSA	Prostate Specific Antigen
QOL	Quality of Life
RCT	Randomised Controlled Trial
RP	Radical Prostatectomy
RT	Radiotherapy
SAS	Statistical Analysis Software
SD	Standard Deviation
SCFS	Schwartz Cancer Fatigue Scale
SPSS	Statistical Package for the Social Sciences
TIP-C	Telephone Interpersonal Counselling
TNM	Tumour, lymph node, metastasis
TRUS	Transrectal ultrasound
VAS	Visual Analogue Scale
WHO	World Health Organisation