Nursing interventions to improve the health of men with prostate cancer undergoing radiotherapy: a review
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CRD summary
This review found evidence to support the use of nurse-led interventions, providing information on the side-effects of radiotherapy, in men with prostate cancer. In view of the variability and relative poor quality of the included studies, along with the apparent selective reporting of the study findings, the authors’ conclusions should be treated with caution.

Authors’ objectives
To assess how nursing interventions can improve the health of men undergoing radiotherapy for prostate cancer.

Searching
MEDLINE, CINAHL and the Cochrane Library were searched for articles published from January 1994 to May 2006; the search terms were reported. The reference lists of articles were screened for additional studies and one ‘classic’ study published in 1988 was also included. Only articles published in English or a Scandinavian language were eligible for inclusion.

Study selection
Any quantitative or qualitative study assessing the effects of a nursing intervention in men with prostate cancer receiving either curative or palliative radiotherapy treatment were eligible for inclusion. Studies of men with prostate cancer who were only receiving brachytherapy were excluded from the review. Participants with other types of cancer were also included in the reported studies, and some studies also included women with breast cancer. The types of studies included in the review were randomised controlled trials (RCTs), controlled trials (CCTs), literature reviews, qualitative studies and other types of non-specified studies. The interventions varied and included nurse-led follow-up telephone calls, taped messages with objective information, theory-based interventions, nurse-led psychoeducational interventions and participation in a support group. Where relevant, control groups received standard care or information. The outcomes varied and included both acute and long-term side-effects, symptoms and symptom scores, nursing management and adverse effects. Further details of the interventions and outcomes were reported in the review.

Two reviewers independently screened articles for inclusion and a third reviewer validated the decisions.

Assessment of study quality
The validity of the included articles was assessed according to the methods of the Critical Appraisal Skills Programme. Where applicable, articles were assessed on the basis of method of randomisation, the number of participants, inclusion and exclusion criteria, the comparability of the study groups, the appropriateness of the outcome measurement methods used and the follow-up period. The quality of quantitative studies was graded as high (I), moderate (II) or low (III), as described by the Swedish Council on Technology Assessment in Health Care.

Two reviewers performed the validity assessment.

Data extraction
Two independent reviewers summarised study details and the main findings of the articles in standardised tables of evidence.

Methods of synthesis
The findings were summarised narratively according to two main themes: nurse-led care related to radiotherapy treatment and the patients’ experiences of radiotherapy treatment.

Results of the review
Fourteen articles were included in the review: four RCTs, two CCTs, one qualitative study, three literature reviews and four studies using other designs. A total of 1,132 patients were included in the ten quantitative and one qualitative study.

Two studies were high quality (I), six were moderate (II) and six were low quality (III).

One RCT (level II) reported that men who had nurse-led care were significantly more satisfied than those who had standard care (p<0.002). Another RCT (level II) reported that men who received four taped messages with objective information reported significantly less disruption to daily activities during and after radiotherapy than men who received standard information. Two RCTs (both level II) reported that interventions delivering objective, definitive information were significantly more effective in terms of positive effects on mood in pessimistic patients (one RCT; p<0.01) and sleep problems and fatigue (one RCT) in comparison with standard information control groups (p<0.02 and p<0.052, respectively). One CCT (level I) of a theory-based intervention reported a reduction in disruption at home and a more positive mood amongst pessimistic patients in comparison with routine nursing care (p<0.025). A nurse-led psychoeducational intervention showed significantly improved incognitive reframing and problem-solving after 4 months in comparison with usual care one level I CCT).

The results of one qualitative study, four other study designs and three literature reviews were also reported in the review.

Authors’ conclusions

There is strong evidence (grade A) to support the use of nurse-led follow-up care which provides information on how to manage side-effects. There is also some moderate evidence (grade B) to support the need for structured, objective and definitive information, and that it can be provided through the use of audiotapes or phone calls. Evidence to support patients’ experiences of radiotherapy is, however, weak (grade C).

CRD commentary

This review answered a very broadly defined review question that included a wide range of study designs and undefined outcomes. A reasonable search for published information was carried out, but no specific attempts were made to locate unpublished material. In addition, there were limitations placed on the language of publication, which suggests that some relevant articles may have been missed. One article which also appears not to meet the criteria was included. The review methods appear to have been carried out rigorously, with consideration given to the quality of the studies. Details of the included studies were summarised in the tables, but details about the overall sizes of effects were not always provided. The findings of the review also appear to have been selectively reported as other types of participants were included in the studies and it is unclear whether outcome data were reported separately for the eligible population. Given the wide range of included studies, outcomes and interventions, the reviewers’ decision to summarise the data in a narrative synthesis appears valid. In view of the variability and relative poor quality of the included studies, along with the apparent selective reporting of the study findings, the authors’ conclusions should be treated with caution.

Implications of the review for practice and research

Practice: The authors stated that guidelines are reported in the literature and can be implemented by nurses with regard to providing patients with information to prepare them mentally for radiotherapy and to relieve their anxiety. Both the patients and health care benefit from patients being given the same treatment information, and it may also enable patients to continue with their daily lives with less disruption.

Research: The authors stated that further research, particularly in the form of intervention studies, is required to assess the effects of support groups, follow-up care after radiotherapy and nursing interventions, with respect to minimising the side-effects of radiotherapy and the patients’ experiences.

Funding

Not stated.

Bibliographic details

**PubMedID**
17409028

**DOI**
10.1016/j.dnarep.2007.02.019

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Animals; DNA Breaks, Double-Stranded; DNA Repair; DNA Replication; DNA-Binding Proteins /metabolism; Endodeoxyribonucleases /metabolism; Endonucleases /metabolism; Flap Endonucleases; Humans; S Phase; Saccharomyces cerevisiae /metabolism; Saccharomyces cerevisiae Proteins /metabolism; Trans-Activators /metabolism

**AccessionNumber**
12008103149

**Date bibliographic record published**
01/09/2008

**Date abstract record published**
23/12/2008

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.