



**OBJN**  
Online Brazilian Journal of Nursing

**ENGLISH**

Federal Fluminense University

**AURORA DE AFONSO COSTA**  
NURSING SCHOOL



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Case Study



## Emotional aspects of prostate cancer post-treatment: an integrative literature review

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### ABSTRACT

**Aim:** To analyze the available evidence in the literature about the emotional aspects of the prostate cancer post-treatment period. **Method:** This is an integrative literature review. Data were collected in the period from May to June 2013 using LILACS, PUBMED/MEDLINE, CINAHL, SCOPUS and COCHRANE databases. **Results:** Of the nine selected articles, eight were published in English and one in Portuguese. Regarding the evidence level, five studies achieved level IV, two achieved level II and two achieved level VI. **Discussion:** Prostate cancer affects the mental health of patients by interfering with male sexuality, and may cause loss of sexual desire and erectile dysfunction. **Conclusion:** It is possible to identify the significant impact of cancer in relation to psychological and social factors in men's lives.

**Descriptors:** Psychosocial Impact; Men; Neoplasms.

## INTRODUCTION

In the current decade, cancer is considered a pandemic of chronic non-communicable diseases (NCDs) because of its incidence and associated morbidity and mortality<sup>(1)</sup>. In Brazil, it is a major cause of death, second only to cardiovascular disease. The estimates for the year 2014, also valid for the year 2015, indicate the occurrence of 576,580 new cases of cancer, including non-melanoma skin cases, which increases the magnitude of the problem in the country. Excluding non-melanoma skin cancers, prostate cancer is the most frequent type of cancer among men in all regions of the country. 68,800 new cases of prostate cancer were estimated to have occurred in Brazil in the year 2014. These values correspond to an estimated risk of 70.42 new cases per 100,000 men<sup>(2)</sup>.

This type of cancer is among the NCDs that have had the most impact on the quality of life, in the biological, psychological and social areas. This is because of the fear of receiving the diagnosis, fear of death, pain, uncertainty of healing and recurrence, and the effects of the treatment indicated, causing suffering in patients regarding their self-image and self-esteem<sup>(2,3)</sup>, interrupting plans for the future, and negatively impacting on economic and social development<sup>(3)</sup>.

There are treatments for men with localized prostate cancer including surgery, radiotherapy and androgen deprivation therapy. Each of these has a number of potential adverse effects, including erectile dysfunction, loss of libido and urine incontinence, all potential causes of emotional change<sup>(4)</sup>.

In this sense, the male population suffering from cancer needs attention. The nurses' role in health promotion and the rehabilitation of radical post-prostatectomy patients is critical, since nerve damage resulting from this type of procedure can lead to erectile dys-

function and urinary incontinence. Thus, the professional nurse must engage in meticulous observation in search of strategies that facilitate the achievement of the health that these men need, and provide resources with a view to a better quality of life.

Given the above, the present study is relevant with regard to providing knowledge about the psychological aspects involving the male population after the treatment of prostate cancer, and providing resources for nurses to offer a better understanding of these aspects, in order to promote systematic actions and to measure increases in the quality of life of these patients.

Based on these, the research aims to analyze the evidence available in the literature about the emotional aspects of prostate cancer post-treatment in the male population.

## METHOD

In order to achieve the objective, we used the integrative review method (IR), which contributes to the strengthening of evidence-based practice. In carrying out IR, the following methodological steps were taken: the theme identification and formulation of guiding question to elaborate the integrative review; the establishment of criteria for the inclusion and exclusion of studies or for a literature search; the identification of information to be extracted from the selected/categorization studies; the assessment of studies included in the integrative review; the interpretation of the results; the presentation of the review/synthesis of knowledge<sup>(5)</sup>.

To guide this research we used the following question: What are the emotional changes experienced by men after treatment for prostate cancer?

The following databases were used for the search of primary studies: Latin American and Caribbean Health Sciences (LILACS), Medical Literature Analysis and Retrieval Sistem *online* (PubMed / MEDLINE), Cumulative Index of Nursing and Allied Health Literature (CINAHL), Scopus and Cochrane.

The data were collected between May and June 2013 using the following controlled descriptors: psychosocial impact, men and neoplasm. All were combined in each database according in order to ensure a wide search.

As a criterion to guide the search we chose works published in Portuguese, English and Spanish that were conducted during the period 2009-2013, and studies offering a consistent presentation of results, method definition and population studied.

We excluded articles that do not concern the core question of the research; articles written in languages other than those defined in the study; abstracts and conference proceedings, reviews, review articles, editorials, opinions and reports, and research on other diseases other than cancer, even if referring to studies of the male population and their mental health; and research with incomplete methodological detail.

For the categorization of the surveyed studies and the definition of the information obtained through various studies, we used an adapted Ursi form. Data assessed were: article title, journal title, authors, country, language, year of publication, type of journal, methodological characteristics of the study, analysis of the results and conclusions/implications<sup>(6)</sup>.

In the evaluation stage of the included studies we conducted a comparison and synthesis of the results obtained with regard to the selected articles, and a discussion of what was searched. Careful and detailed readings were made, in addition to translation into Portuguese, when required<sup>(6)</sup>.

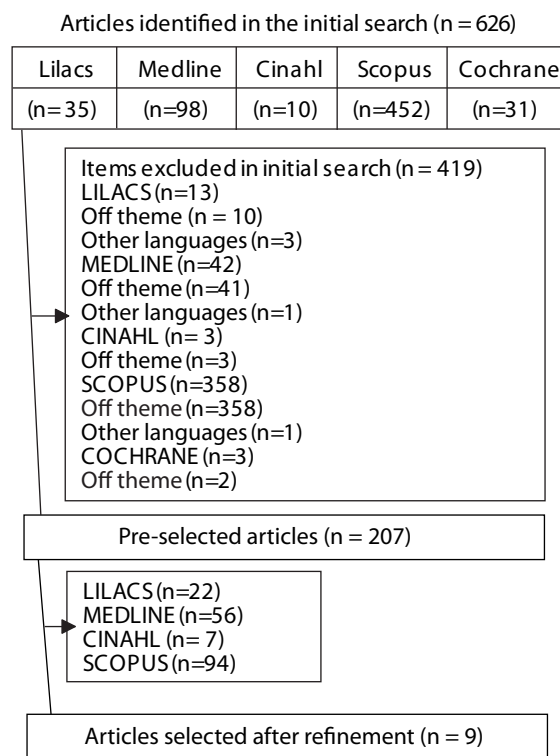
Then, in terms of the interpretation of the results, we compared what was found and the theoretical knowledge<sup>(7)</sup>. During this stage, the researchers were able to define where there were gaps in the literature, and how future research in the study area could be conducted. It matches the discussion stage in conventional research.

The information obtained were presented in tables for a better understanding of the synthesis and to allow a comparison of what was produced in the selected articles.

## RESULTS

After applying the inclusion and exclusion criteria, the final sample consisted of nine articles; four of them were located in the LILACS database, four in MEDLINE database and only one in SCOPUS database. Figure 1 depicts the plan used to select the articles.

**Figure 1 - Article selection Flowchart**



Of the nine articles included in the review, we found that eight were published in English and only one in Portuguese. Regarding the level of evidence, two studies presented level II, i.e., randomized controlled trials (RCTs); five primary studies presented evidence level IV, with two case-control studies and three prospective cohort studies; and two studies presented level VI, with an exploratory-descriptive and qualitative approach. Table 1 lists the details of the studies included in the review. The synthesis of primary studies regarding the outcomes investigated is presented in Table 2.

**Table 1** - Details of studies included in the review.

Study	Design	Sample	Year
Ames, et al (8)	RCT	n= 57	2011
Hong, et al (9)	Prospective Coort	n=584	2010
Ulloa, et al (10)	Case Control	n=68	2009
Jonsson, et al (11)	Qualitative study	n=10	2009
Vieira, (12)	Descriptive-exploratory	n=52	2010
Lee, et al (13)	RCT	n=20	2012
Zhou, et al (14)	Prospective Coort	n=180	2010
Purnell, et al (15)	Case Control	n= 317	2011
Mehnert, et al (16)	Prospective Coort	n=511	2010

Source: Authors' research, 2014.

The total number (n) of participants in all studies combined was 1,799, of which 70% (n = 1,263) underwent radical prostatectomy (RP) as a treatment, 1.5% (n = 27) received RP associated with other adjuvant therapy, 5.5% (n = 98) had the androgen deprivation therapy (ADT) treatment and 5.2% (94) received radiotherapy. Among the aspects analyzed, anxiety was identified in four studies; stress in three studies; hot flushes, mood, well-being, quality of life, depression, erectile function, self-esteem and social support were assessed in only one study each.

## DISCUSSION

Nursing acts directly on the care of patients undergoing prostate surgery, both in terms of physical and psychological aspects. On the physical side, these individuals need guidance related to post-surgical care with the catheter, such as warm baths, washing the tip of the penis, the use of ointment and loose clothing. These measures provide greater comfort and reduce the side effects caused by the catheter<sup>(17)</sup>. As for the psychological aspect, the changes come from the possibility of the cure of a serious illness, and a lack of knowledge of treatment side effects. In this sense, the educational action by nurses is crucial<sup>(18)</sup>.

Psychological effects are experienced by many patients with cancer. Depression and changes in behavior are also present<sup>(19)</sup>. Some fears associated with emotional-sexual relationships after the experience of the disease are present, especially changes in sexuality, the frustration in treatment for erectile dysfunction, and the fear of being abandoned by wives<sup>(20)</sup>.

All studies confirmed the presence of psychoaffective changes in at least half of the patients evaluated. According to the results shown, anxiety and stress disorders were the most prevalent outcomes and were related to radical prostatectomy in 75% and 66.6% of the cases, respectively. This is due to damage to the innervation and blood supply of the pelvic organs, which affects the physiological response to sexual stimulation<sup>(21)</sup>, leading to a loss of male identity due to the effects reported by patients after surgery, in which are present a loss of sexual desire, anorgasmia, mild urinary incontinence during sex, greater distress and reduced satisfaction on the part of the partner. These effects present with greater significance in less motivated patients<sup>(22)</sup>.

The use of symptom measurement scales

**Table 2** - Summary of the primary studies included in the review. Fortaleza, Brazil, in 2014.

Study	Type of treatment	Method	Scale	Outcome
Ames et al (8)	RP (n=57)	- WLC: Waiting list control (n=27)	- Anxiety: Memorial Anxiety Scale for Prostate Cancer;	- Favorable impact on mental health, reducing anxiety and improving quality of life in MQOL participants compared to WCL members.
		- MQOL: Multidisciplinary quality of life intervention(n=30)	- Stress: The Perceived Stress Scale	
Hong et al (9)	- RP (n=557)	- Scale application to measure fears and anxieties about the recurrence of the disease, according to the surgical margin.	- Anxiety: Kornblith scale	- Patients with positive surgical margin: greater fear and anxiety of cancer recurrence
	- RP + adjuvant (n=27)			- Patients with negative surgical margin + adjunctive therapy: no relief from the fear of cancer recurrence
Ulloa et al (10)	ADT (n= 68)	- Evaluation made in the 1st week of treatment for 6 weeks after the start of ADT and the end of the 3 months	- Structured questionnaire (presence, frequency and intensity of hot flashes)	- 36 (53%) men reported having hot flashes after 6 weeks of treatment. After 3 months, 47 (69%) men had symptoms.
			- The Hot Flash-Related Daily Interference Scale	- Hot flashes presence keeps anxiety levels during the treatment period.
Jonsson et al (11)	ADT (n=10)	- Men with newly diagnosed (up to 4 weeks) advanced prostate cancer and are up to 2 weeks of treatment.	- Philosophical hermeneutics of Gadamer.	- consciousness of mortality: feeling of sadness and fragility;
				- Emotions influence: changes between the person and their daily life, with change of self-control;
Vieira (12)	RP (n=52)	- Evaluation of the psychological impact of the disease and surgical treatment before and after surgery.	- Quality of life: Short-Form Healthy Survey (SF-36);	- SF-36: fear related to the illness, death and loss of male identity.
			- Erectile function assessment: International Index of Erectile Function (IIEF 5).	- IIEF5: Before surgery, 60% of patients already had erectile dysfunction in some degree. After surgery, 63.5% of patients had emotional distress related to the absence of sexual activity.

Lee et al (13)	ADT (n=20)		- Depression: Center for Epidemiological Studies Depression (CES-D);	
		- Exercise Group (n = 10): exercise program lasting 6 months.	- Anxiety: Spielberger State-Trait Anxiety Inventory (STAI);	- Program of home exercises: potential impact on reducing cognitive and psychosocial side effects of ADT, improvement in quality of the lives of men who received the intervention.
		- Control Group (n = 10): standard medical advice.	- Self-esteem: Rosenberg Self-Steem Scale (SES).	
Zhou et al (14)			- Social support: Enrichd Social Support Instrument	- Social support at study beginning (corresponding to the start of treatment) predicted better emotional well-being after two years.
	- Radiotherapy (n=94)	Assessment of impact of psychosocial and specific measures of the disease in coping and emotional well-being	- Coping: Brief COPE	- The relationship between social support and emotional well-being is partially mediated by coping strategies.
	- RP (n=86)		- Emotional well-being: The Functional Assessment of Cancer Therapy-General.	
Purnell (15)	Undefined	- Intervention group: expressive group therapy support;	- Humor distress: The Profile of Mood States (POMS)	- American Non-African descent: showed 12.2% of traumatic stress in 24 months;
		- Control group: educational material.	- Disease interference: The Illness Intrusiveness Rating Scale(IIRS).	- African descent: showed 39.1% of traumatic stress in 24 months with clinically significant symptoms.
Mehnert et al (16)	RP (n=511)			- 83.4% (n = 426) of patients had some kind of anguish, mainly related to the diagnosis of the disease (41%), the uncertainty of the future (24%) and sexual impotence (11.4%).
		- Outpatient follow-up for a period of 27 months after surgery	- Anxiety + depression: Hospital Anxiety and Depression Scale (HADS);	- Psychological stress: 16.2%, related to lack of support and the threat of the disease.
			- Stress: The Posttraumatic Stress Disorder Checklist (PCL-C).	- Severe mental disorders: 6%, related to lack of support, stage and threat of cancer and age.

Source: Authors' research

was present in eight studies. Measurement scales are very useful when it comes to assessing signs and symptoms, or even some subjective conditions, in an accurate and systematized way. In this way, the variables measured by scales should provide support to professionals, so that they can identify changes in the patient's condition and can plan for the necessary interventions<sup>(23)</sup>.

According to the studies included in the review, part of the psychological stress and mental well-being is related to a lack of social support, being mediated by coping strategies. The search for social support as a coping strategy for patients with cancer is still considered insufficient. The literature offers important suggestions to that effect, such as the need for cognitive-behavioral therapy in the training of coping skills; the creation of support and informative groups; and interventions focused on altered body image, and the expression and control of emotions<sup>(24)</sup>.

## CONCLUSION

By proposing this integrative review, it was possible to identify the emotional changes that affect the male population after treatment for prostate cancer. Stress and anxiety were the most prevalent changes, and radical prostatectomy was the most commonly-used therapeutic measure.

The use of scales by the researchers was essential to measure the emotional aspects of this population. This implies that such tools facilitate the psychological treatment of this population, as well as communication between professionals and patients, as they help in the analysis of these emotional aspects and enable the development of interventions to minimize this impact.

We conclude that the nurse has important and effective resources for the provision of a better assessment of the patients in terms of their emotional aspect, favoring a more effective assistance to such individuals. However, measures are needed to strengthen this practice on the part of nurses.

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All authors participated in the phases of this publication in one or more of the following steps, in According to the recommendations of the International Committee of Medical Journal Editors (ICMJE, 2013): (a) substantial involvement in the planning or preparation of the manuscript or in the collection, analysis or interpretation of data; (b) preparation of the manuscript or conducting critical revision of intellectual content; (c) approval of the versión submitted of this manuscript. All authors declare for the appropriate purposes that the responsibilities related to all aspects of the manuscript submitted to OBJN are yours. They ensure that issues related to the accuracy or integrity of any part of the article were properly investigated and resolved. Therefore, they exempt the OBJN of any participation whatsoever in any imbroglios concerning the content under consideration. All authors declare that they have no conflict of interest of financial or personal nature concerning this manuscript which may influence the writing and/or interpretation of the findings. This statement has been digitally signed by all authors as recommended by the ICMJE, whose model is available in [http://www.objnursing.uff.br/normas/DUDE\\_eng\\_13-06-2013.pdf](http://www.objnursing.uff.br/normas/DUDE_eng_13-06-2013.pdf)

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**Received:** 6/1/2014  
**Revised:** 12/4/2012  
**Approved:** 12/4/2014