

Nursing interventions for patients discharged from prostatectomy: an integrative review*

Intervenções de enfermagem para alta de paciente prostatectomizado: revisão integrativa

Intervenciones de enfermería para el alta de pacientes prostatectomizados: revisión integradora

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ABSTRACT

This study aimed to identify the knowledge produced by nursing interventions related to prepare patients for hospital discharge after a prostatectomy treatment; the information was retrieved from scientific literature provided by nursing studies. It is an integrative review of the literature in which the articles were consulted in the following databases: LILACS, MEDLINE, CINAHL and Cochrane Library. The sample consisted of 25 articles. The possibility of urinary incontinence is one of the most common themes discussed, also interventions related to information given to patients, especially about caring for the Foley catheter. The study highlights the importance of experimental and quasi-experimental studies on the effectiveness of self-care information for patients and their families, also to provide better nursing care in case of urinary incontinence and erectile dysfunction in specific nursing diagnosis to guide nursing care plans for these patients.

Keywords: Prostatectomy; Patient discharge; Perioperative nursing

RESUMO

Este estudo objetivou identificar o conhecimento que se tem produzido sobre intervenções de enfermagem, na literatura científica da enfermagem, com vistas ao preparo do paciente prostatectomizado para alta hospitalar. Trata-se de uma revisão integrativa da literatura em que foram consultados artigos das bases de dados LILACS, MEDLINE, CINAHL e Biblioteca *Cochrane*. A amostra da revisão constituiu-se de 25 artigos. A possibilidade de incontinência urinária constitui um dos focos mais frequentes abordados, assim como intervenções relativas à informação dos pacientes, especialmente, sobre cuidados com o cateter Foley. Destaca-se a importância da realização de estudos experimentais e quase experimentais sobre a eficácia da informação para o autocuidado aos pacientes e suas famílias, melhores cuidados de enfermagem na incontinência urinária e disfunção erétil e diagnósticos de enfermagem específicos para orientar planos de cuidados de enfermagem a esses pacientes.

Descritores: Prostatectomia; Alta do paciente; Enfermagem perioperatória

RESUMEN

Este estudio tuvo por objetivo identificar el conocimiento producido sobre intervenciones de enfermería, en la literatura científica de enfermería, con el objetivo de preparar al paciente prostatectomizado para el alta hospitalaria. Se trata de una revisión integradora de la literatura en la que fueron consultados artículos de las bases de datos LILACS, MEDLINE, CINAHL y Biblioteca *Cochrane*. La muestra de la revisión estuvo constituida por 25 artículos. La posibilidad de incontinencia urinaria constituye uno de los focos más frecuentes abordados, así como intervenciones relativas a la información de los pacientes, especialmente, sobre cuidados con el catéter Foley. Se destaca la importancia de realizar estudios experimentales y casi experimentales sobre la eficacia de la información para el auto-cuidado de los pacientes y sus familias, también para ofrecer mejores cuidados de enfermería en caso de incontinencia urinaria y disfunción erétil y en casos de diagnósticos de enfermería específicos para orientar planos de cuidados de enfermería a esos pacientes.

Descriptores: Prostatectomia; Alta del paciente; Enfermería perioperatoria

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INTRODUCTION

The most common prostate diseases mentioned in the literature are benign prostatic hyperplasia and prostate cancer. While there are conservative alternatives for their treatment, surgery remains a frequent choice⁽¹⁻²⁾.

In general, there is a tendency to shortening the length of stay of surgical patients^(1,3-4) and, in that context, the postoperative period has been considered the longest stay for patients⁽³⁾ and this may have a negative effect on the development of educational activities in preparation for discharge⁽⁴⁾.

Nurses play an important role in preparing prostatectomy patients for discharge, since they often leave the hospital with questions and expectations, especially regarding the functioning of the urinary and reproductive systems⁽⁵⁾, and also with social and emotional needs. Thus, it is understood that the approach taken by the nursing staff cannot dispense with specific knowledge and should include not only the teaching of self-care, but also the emotional support and information.

The complexity involved in understanding the specific needs of prostatectomy patients and the importance of nursing care actions in their preparation for discharge justifies performing a study to identify the knowledge of such actions, which would contribute with the systematization of nursing care and of teaching, research and assistance in this important topic.

Therefore, this study aimed to identify the knowledge that has been produced on nursing interventions (NI) in the literature of nursing, in order to prepare prostatectomy patients for discharge.

METHODS

In this study, NI are defined as actions performed by nurses in order to monitor the state of health, reduce risks, solve, prevent or control a problem, facilitate independence, or assist in activities of daily living and promote the optimization of sense of physical, psychological and spiritual well-being. NI may be classified as direct care NI, i.e., through direct interaction with patients or indirect care NI, which are performed away from the patient, but on their behalf⁽⁶⁾.

The methodology was based on an integrative review, as it is the broadest study review method and permits the simultaneous inclusion of non-experimental and experimental studies with a view to obtaining a thorough understanding of the phenomenon under study⁽⁷⁾.

A survey of the NI was performed, as per the guidelines for developing an integrative literature review⁽⁷⁻¹⁰⁾: identification of the theme; formulating a guiding question, search and selection of literature, categorization and evaluation of studies and presentation of the review.

The survey was conducted supported on the following guiding question: "What NI are presented in the literature regarding the preparation for discharging prostatectomy patients?"

The consulted databases were: the Latin American and Caribbean Center on Health Sciences Information (LILACS), Cochrane Library, Medical Literature Online (MEDLINE) and Cumulative Index to Nursing and Allied Health Literature (CINAHL).

The survey of articles in the CINAHL database was performed using the CINAHL *with full text* mode in the "Find all my search terms" search mode. In Cochrane, the Cochrane systematic review abstract were considered, in addition to the quality assessed systematic reviews and the Cochrane trial records.

The keywords "prostatectomy", "discharge", "nursing", "perioperative care", "perioperative period", "transurethral resection of prostate" and "postoperative period" were combined into groups of three as follows: "prostatectomy" and "nursing" associated to "discharge", "perioperative period", "postoperative period" and "perioperative care"; and "transurethral resection of prostate", "discharge" and "nursing". On the LILACS database, the same terms were translated to the Portuguese language.

The search included articles in Portuguese, English or Spanish published between January 1994 and August 2008 that addressed nursing care for patients undergoing prostatectomy, based on their titles and abstracts. Nine studies showed no abstracts online, therefore, the search for their full text was performed. Subsequently, a search was performed for full text articles on the site of the Coordination of Improvement of Higher Education Personnel, using the Bibliographic Commutation System at Universidade Federal de São Carlos, or by direct searches at the Central Library on Ribeirão Preto Campus, University of São Paulo.

The material analysis was conducted in August 2008. Of the 199 initially obtained references seven were of languages not covered by the inclusion criteria: six in French and one in Chinese; two publications without an online abstract corresponded to health care plans published separately and 49 were repeated. The abstracts of the remaining 141 publications were read, and 45 were related to the guiding question, of which 29, 15 and 1 were on the MEDLINE, CINAHL and Cochrane databases, respectively. The search of the 45 (100%) full text articles was performed and 37 (82.2%) were found. After reading and analyzing the 37 complete studies, 12 were excluded for addressing NI for preparing prostatectomy patients for discharge. Thus, the sample consisted of 25 articles.

The articles were summarized with reference of the title, database, authors, journal, country where the study was performed, objectives, design, completion and

surveyed NI. For analysis and organization, the identified NI were grouped into thematic categories: general conducts, urinary catheter care, infection prevention, care with nutrition and hydration, returning to activities, hygiene care, care regarding the administration of medication, education about signs and symptoms expected in the postoperative period, signs and symptoms of complications and conduct, education about exercises for pelvic muscles and care for pain control.

The level of evidence (LE) of the studies was discussed between the authors and assigned based on the classification proposed by Stetler et al.⁽¹¹⁾: Level I - Evidence obtained from the results of meta-analysis of controlled clinical studies with randomization, level II - evidence obtained in experimental study design, level III - Evidence obtained from quasi-experimental research, level IV - Evidence obtained from descriptive studies or qualitative methodological approach, level V - evidence from case reports or experience reports, level VI - evidence based on expert opinion or based on standards or legislation.

RESULTS

Regarding the main authors of the reviewed articles, twenty were nurses, four were physicians and one was a psychologist; as for the authors' main institution, seventeen were affiliated with universities and with hospitals. Most of the studies were developed in the United States and Canada, with eighteen and four studies, respectively, followed by China, Norway and England, with one study each.

The studies were published between 1994 and 2007; no publications were identified in 2001, while in other years, it was observed that one or two articles were published per year, except for the years 1999 and 2006 with four and five articles, respectively.

Among the studies, six articles were published in journals of general nursing, eight in urologic nursing journals, four in perioperative nursing journals, three in medical journals, one in a journal of oncology nursing, one in a geriatric nursing journal and two in interdisciplinary health journals.

Regarding the study design, the following were identified: a systematic review⁽¹²⁾, an experimental study⁽¹³⁾, a quasi-experimental⁽¹⁴⁾, three case studies⁽¹⁵⁻¹⁷⁾, six studies with a quantitative approach and non-experimental design^(4,18-22), two studies with a qualitative approach⁽²³⁻²⁴⁾ and seven updating studies⁽²⁵⁻³¹⁾. In four studies, it was not possible to identify the research design, since the authors did not provide a clear definition⁽³²⁻³⁵⁾.

The LE of the studies were: on study of LE I⁽¹²⁾, one of LE II⁽¹³⁾, one of LE III⁽¹⁴⁾, 11 of LE IV^(4,15-24)

and seven of LE VI⁽²⁵⁻³¹⁾.

The NI are presented in accordance with the thematic categories identified. It is emphasized that often the same study showed different NI, because the authors analyzed the general context of discharge, encompassing the diverse needs of the patient.

The **general conducts** category grouped the largest number of interventions. These were related to information and communication of nurses with patients and families. Examples: providing written and oral information to patients and families^(4,14,18,25,26); understanding the patients' nonverbal communication regarding their preoccupations^(19,23); providing brochures on the available health services in the community⁽¹⁹⁾, collect data about the family and the environment for home care⁽²⁵⁾, monitor the implementation of self care by patients during hospitalization⁽⁴⁾ evaluate the patient and family reactions to the guidelines provided⁽²⁵⁾, consider the receptivity of the patient information and communication barriers^(14,25).

In the category **urinary catheter care**, the following were identified: orienting the patient/family regarding the need for using the bladder catheter and its functioning^(18,20,28,29,32,33); teaching how to empty the drainage bag and doing the external cleaning of the bag and tubes^(19,25,26,29-32), guiding and positioning the collection bag on the side of the bed for comfort at bedtime^(32,35); fixating the catheter to the abdomen or upper front side of the thigh with waterproof tape to prevent traction or dislocation⁽³²⁾; report on the removal of the catheter: when, where and by whom^(19,30).

Regarding the **infection prevention**, the following were identified: informing about urinary tract infections signs and symptoms^(16,19,21,27,31,33); teaching measures to reduce the risk of urinary tract infection^(19,27); interacting with the patient, so they can describe the signs and symptoms of infection that have already been taught⁽²⁹⁾; give orientation about care with the incision - dressing, removing stitches, signs of infection and support of the incision when needed^(19,25); and informing about the removal of the surgical dressing 24 hours after discharge⁽¹⁷⁾.

About **care with nutrition and hydration**, the following were identified: giving instructions on the volume of liquid to be taken^(16,19,28,30,31,33,35), and encouragement to drink water while the urine is bloody⁽³³⁾; orienting about the importance of maintaining urinary frequency⁽²¹⁾; informing that reducing or suspending fluid intake can cause bladder irritation⁽²¹⁾; giving instructions on increasing the intake of fiber and fluids to control constipation⁽³²⁾.

In the category **returning to activities**, the following were identified: orienting about the restriction of vigorous exercise (driving vehicles, climbing stairs, lifting

heavy objects, and having sexual intercourse^(15,16,30,32-35); encouraging patients to walk as much as possible on a flat level^(33,35); instructing to not making strenuous efforts to evacuate⁽²⁰⁾, inform the average return to work after surgery^(19,32).

Authors suggest that patients who develop urinary incontinence should return to work only after six whole weeks to develop a pattern of visits to the toilet and take time to improve control before the return⁽³²⁾.

In the **hygiene care** category, the following were identified: informing about the need of bathing daily^(17,19,31); recommending a spray bath 48 hours after surgery⁽³²⁾; orienting about performing perineal hygiene once daily or at every evacuation, in the case of perineal prostatectomy⁽³⁴⁾; teaching hygiene and skin care in case of drainage around the catheter⁽³⁵⁾.

Related to **care regarding the administration of medications**, the following were identified: instructing patient to, if necessary, use a laxative or stool softener during the first two weeks of recovery^(16,17,19); to discuss with patients the use of oral analgesics and antibiotics^(17,30) and guide them about the use and side effects of prescribed medications⁽²⁵⁾.

In the category **education about signs and symptoms expected in the postoperative period**, the following were identified: informing the patient about: urinary retention or bleeding that may occur after removing the catheter⁽²¹⁾, symptoms of irritation during urination after removing the catheter⁽²¹⁾; irregular bowel habits⁽¹⁶⁾; presence of small clots in urine^(16,31); burning, urge to urinate and/or frequency in the first month⁽³¹⁾; temporary urinary incontinence after the removing the bladder catheter^(28,35); presence of blood in semen⁽³¹⁾; erectile dysfunction and retrograde ejaculation⁽²⁸⁾.

In relation to **education about signs and symptoms of complications and conduct**, the following were identified: giving orientations about issues such as: bladder outlet obstruction, bladder neck contracture, urethral stricture, urinary incontinence^(4,16,19,22); instructing the patient to immediately contact the urologist or specialist nurse if there is any unexpected complication or urine with excessive bleeding, or clots, increased pain not relieved by medications, testicular swelling, fever, no drainage of urine through the catheter, inability to urinate for more than four hours, increased burning during urination, increased urination for a week, feeling a full bladder even after urinating and if the catheter stops draining freely^(21,24,35).

As for **education of pelvic muscle exercises**, the found NI referred to instructing patients about the need for pelvic muscle exercises and performing those exercises on a daily basis^(13,19,35), which should be initiated during the preoperative or postoperative period,

immediately after removing the catheter to help control urinary incontinence⁽¹²⁾.

The category **care for pain control** grouped NI related to patients orientations about: the pharmacological and non-pharmacological management of pain⁽²⁵⁾; monitoring catheter to avoid blockage, to prevent bladder distension⁽²¹⁾; having warm sitting baths or applying warm compressed on the suprapubic region to relieve pain after removing the catheter⁽²¹⁾.

DISCUSSION

There was a predominance of studies with evidence level IV and VI, which signals the need for developing further studies that address the specific care for the discharge of prostatectomy patients, producing results of strong evidence to support clinical practice. It should be emphasized that no publications of Brazilian studies in this area were found.

The highlight was a quasi-experimental study (EL III) performed in Norway⁽¹⁴⁾, which compares the perception of patients before and after the review of the procedure to improve the information provided to patients undergoing urological surgery. It was found that providing written information in leaflets well prepared and combining them with oral information resulted in a significant contribution to the patients' abilities for care at home, and that well-planned information for discharge favors a satisfactory self-care at home.

The involvement of the urinary and reproductive system and the chances of changes in urinary continence and sexual function may result in significant emotional responses in the prostatectomy patient. Thus, it is understood that it is important to develop studies that improve the knowledge regarding the effectiveness of the information that is provided and if the expected recovery outcomes are achieved.

In Brazil, a study about problems presented by surgical patients after discharge found that 69.6% of patients reported having associated problems, emotional and physiological changes and doubts⁽³⁶⁾.

It is supposed that providing information regarding the care that must be performed is important to minimize anxiety and promote greater safety for patients and their families. Brazilian authors found that, although not being familiar with reading, patients and families prefer to receive written material with information about the discharge because it can be read by other people close to them⁽³⁷⁾.

Regarding the only experimental study⁽¹³⁾ (EL II) identified, the authors assessed the effects of pelvic floor muscle exercises in urinary frequency, dripping, incontinence and life satisfaction in patients after transurethral prostatectomy. Patients were instructed to

perform the exercises on a daily basis, after removing the Foley catheter, for three to four sessions of 30 repetitions. These exercises appear to help reduce urinary frequency and improve symptoms of dripping and urinary incontinence in men in the first four weeks after surgery.

A systematic literature review⁽¹²⁾ (EL I) performed in Canada with the objective to evaluate the effects of conservative treatments for urinary incontinence after prostatectomy found that training the pelvic floor muscles alone or with biofeedback in the pre-or post-operative period, immediately after removing the catheter may help short-term incontinence after radical prostatectomy.

Urinary incontinence appears as a problem to be taken into account by nurses, as it may significantly interfere with the quality of life of patients, with important emotional responses⁽¹²⁻¹³⁾, but with the possibility of interventions which fall into the highest levels of evidence relating to exercises for the pelvic floor muscles.

Interventions regarding this problem and which may minimize responses such as fear and anxiety were also identified in a case study⁽¹⁵⁾ (EL IV), in which the authors addressed the expected complications in the postoperative period and highlighted the importance of informing patients that urinary incontinence tends to improve and that diapers or sanitary pads may be needed. They also state that after the return of urinary continence, patients change their focus to erectile function and to when their sex life can return to normal.

The authors suggest the use of validated questionnaires, such as the Sexual Health Inventory for Men, to evaluate the recovery of sexual function as an effective measure in identifying areas of concern and for establishing a database of patient outcomes.

FINAL CONSIDERATIONS

The use of the integrative review method to search available evidences in literature on NI for preparing prostatectomy patients for discharge permitted to

identify the current knowledge on the subject. The results may support the development of protocols and/or individualized and specific care plans, favoring nursing work in clinical practice.

It was found that the nursing care to prostatectomy patients has been a main concern of nurses across the world, as it is a condition that creates different needs in men and their families.

The authors of the surveyed studies mainly focused on nursing professionals providing information to patients, as this could minimize anxiety, especially regarding urinary incontinence and sexual dysfunction, which may both be experienced after prostatectomy. Structuring the information to be transmitted to patients and using oral combined with written information are strategies identified as important to facilitate the realization of self-care at home.

Despite the query on databases internationally acknowledged as being of relevance to health, it is considered that terms of NI, there is a gap in studies using methodologies that could indicate strong evidence about the effects of nursing treatments. Therefore, one limitation of the study is the inability to identify conclusive results (meta-analysis) because of the designs and samples of the analyzed studies.

Furthermore, it is understood that nursing in Brazil needs to position itself in view of current tendencies in scientific knowledge about prostatectomy. Further studies should be performed on more specific NI for preparing prostatectomy patients for discharge, including experimental designs and quasi-experimental studies, especially with regard to more effective forms of guidance for these patients and their families in terms of self-care, best ways of acting against urinary incontinence and sexual dysfunction, as well as the most frequent nursing diagnoses identified in the discharge planning in this situation.

Thus, nurses would have more elements for the systematization of nursing care for prostatectomy patients, with parameters for evidence-based action and thus more likely to achieve the best outcomes with those patients.

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