

Nursing diagnoses in patients undergoing prostatectomy at the central hospital of Nampula, 1st semester of 2019

Abstract

Introduction: The nursing diagnosis is a clinical assessment of a human response to health conditions/life processes, or a vulnerability to that response, by an individual, family, group or community. The research aims to describe the main nursing diagnoses in patients undergoing prostatectomy admitted to Surgery II at the Hospital Central de Nampula.

Objectives: This is a descriptive study with a quantitative approach, involving patients admitted to surgery II undergoing prostatectomy. All patients with the medical diagnosis of benign prostatic hyperplasia or prostate cancer who underwent prostate surgery were included, thus all patients who underwent prostate surgery but who had other chronic diseases were excluded. Data were analyzed with SPSS statistical package to obtain descriptive analysis, percentage and use of the following Q-square statistical test of independence.

Results: the study involved 33 patients undergoing prostatectomy, 54.5% of these patients had primary schooling and the most predominant age group was 66-75 years old (39.4%). A total of 461 nursing diagnoses were found, and the most frequent were: Impaired walking 5.4%, Constipation 4.8, Risk of infection 6.9, Risk of vascular trauma 7.4%, Acute pain 5.4% and Deficit in self-care for bathing 6.7%. The following diagnoses were associated with the nursing diagnosis: impaired walking p value 0.000, dentition p value 0.006, constipation (p value 0.001), risk of electrolyte imbalance p value 0.000) and risk of falls (p value 0.000).

Conclusion: the use of the nursing process by nurses facilitates the survey of health problems in sick patients in order to intervene in care using real nursing diagnoses, risk and health promotion.

Keywords: nursing diagnoses, patients, prostatectomy

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Introduction

The Nursing Process is a very important instrument to assist nursing professionals in organizing and systematizing the care to be provided to individuals. This process involves everything from decision making and data management to actions and interventions to be carried out.¹ The process consists of 5 stages: History (anamnesis and physical examination), diagnosis, Prescription (nursing interventions), Evolution and Nursing assessment. The Nursing History is carried out upon patient admission through an informal interview and physical examination. Nursing Diagnosis, in turn, is carried out after analysis and evaluation of the history, through the identified problems, the patient's needs are defined, directing the nursing team in providing care. Nursing diagnoses are classified into: real, risk, well-being, syndrome and health promotion.² Prostate cancer (CaP) is classified as the second most common type of cancer and the sixth leading cause of cancer deaths among men, with more than 1.1 million cases and 300,000 deaths estimated in 2012. The incidences of PCa in men in all regions of Africa are: 53.9/100,000 in Southern Africa; 22.2/100,000 in West Africa; 16.4/100,000 in Central Africa; 14.5/100,000 in East Africa; and 8.1/100,000 in North Africa. On the other hand, mortality caused by PCa in men in all regions of Africa are: 19.3/100,000 in Southern Africa; 18.3/100,000 in West Africa; 13.4/100,000 in Central Africa; 11.7/100,000 in East Africa; and 6.2/100,000 in North Africa.⁴

In Mozambique, PCa is responsible for 60% of hospitalizations and consultations in the Urology Service, followed by benign prostatic

hyperplasia and prostatic carcinoma.⁵ In 2013, a study was carried out comparing Mozambique and Sweden in relation to cancers, which revealed an incidence of 16.6% by age and a mortality rate of 12.9% per 100,000 inhabitants⁶ on nursing diagnoses was carried out in Brazil. It was observed that the most common nursing diagnoses in patients undergoing prostatectomy are: anxiety, pain, poor knowledge, risk of infection, sexual dysfunction, impaired urinary elimination, risk of poor volume, ineffective control of the therapeutic regimen, impaired physical mobility, among others⁷ diagnoses are essential for nurses' professional area, guiding them towards a humanized care plan. This study aims to identify the main nursing diagnoses in patients undergoing prostatectomy; and specific mode: describe the clinical, sociodemographic and diagnostic variables of patients undergoing prostatectomy and associate nursing diagnoses with the defining characteristics, related risk factors of patients undergoing prostatectomy.

Methodology

The study is descriptive with a quantitative approach, which involved patients undergoing prostatectomy. The diagnostic inference was made up of complaints raised based on anamnesis and physical examination, then the complaints raised were grouped to formulate the nursing diagnosis, defining characteristic and risk factor, according to NANDA international 2018-2020. The study was carried out in Surgery II of the Central Hospital of Nampula (HCN), with prostatectomized patients admitted. The study population consisted

of 33 patients undergoing prostatectomy. As a participation criterion, all patients with: a medical diagnosis of benign prostatic hyperplasia or prostate cancer and who underwent prostate surgery at HCN will be included, and will therefore be excluded: Patients who show inability to participate in the research; Prostatectomized patient with other chronic illnesses and Patients admitted to the ward more than 48 hours after surgery. The questionnaire was used as a data collection instrument with the help of the nursing process. The protocol was submitted to the HCN Scientific Committee, including a statement of commitment from the main researcher and the cover letter for the research. This study began after approval by the HCN Institutional Committee.

Results

Prostatectomy participated, 18/33 (54.5%) of these patients had primary education and the most predominant age group was 66-75 years old, 13/33 (39.4%) (Table 1). 461 nursing diagnoses (ND) were found, the most frequent of which were: Impaired walking 25/461(5.4%), Constipation 22/461(4.8%), Risk of infection 32/461(6.9%), Risk of vascular trauma 34/461(7.4%), Acute pain 34/461(7.4%) and Deficit in self-care for bathing 31/461(6.7%) (Table 2). As explained in the research data analysis, for the association between diagnostic titles and (defining characteristics, related/risk factors), the q-square test was applied to variables that are between the 50% and 95% percentile, Therefore, the diagnostic titles tested were the following: Constipation, Impaired walking, Impaired dentition, Acute pain, Impaired sitting, Fatigue, Risk of imbalance, risk of falls and Risk of urinary tract injury.

Table 1 Description of sociodemographic variables of patients hospitalized for Hyperplasia or prostate cancer

Patients undergoing prostatectomy		
Description	Frequency	Percentage
Age Range		
46-55	6	18.2
56-65	10	30.3
66-75	13	39.4
>76	4	12.1
Education level		
Primary	18	54.5
Secondary	7	21.2
No Level	7	21.2
Higher	1	3
Provenance		
Angoche	3	9.1
Border	1	3
Cabo Delgado	two	6.1
Island of Mozambique	1	3
Maputo	1	3
Memba	1	3
Muecate	1	3
Murrupula	two	6.1
Nacala Porto	4	12.1
Namitil	1	3
Nampula City	13	39.4
Ribaué	two	6.1
Zambezia	1	3
Total	33	100%

Table 2 Description of the characteristics of nursing diagnoses in patients undergoing prostatectomy

Nursing diagnoses	Frequency	Percentage
	Diagnostic titles	
Unbalanced nutrition: less than body needs	18	3.9
Impaired comfort	5	1.1
Cold	22	4.8
Impaired walking	25	5.4
Decreased cardiac output	10	2.2
Deficit in self-care for nutrition	1	0.2
Deficit in bath self-care	31	6.7
Impaired dentition	20	4.3
Diarrhea	two	0.4
Disturbance in sleep pattern	two	0.4
Acute pain	25	5.4
Fatigue	15	3.3
Hyperthermia	4	0.9
Hypothermia	8	1.7
Insomnia	12	2.6
Impaired tissue integrity	37	8
Nausea	11	2.4
Imbalanced nutrition: less than body needs"	32	7
Ineffective breathing pattern	9	2
Ineffective protection	7	1.5
Risk of electrolyte imbalance	16	3.5
Risk of unstable blood sugar	3	0.7
Risk of infection	32	6.9
Risk of urinary tract injury	15	3.3
Risk of decreased cardiac tissue perfusion	14	3
Risk of unstable blood pressure	1	0.2
Risk of falls	16	3.5
Risk of delayed surgical recovery	16	3.5
Risk of vascular trauma	34	7.4
Feeling impaired	15	3.3
Ineffective thermoregulation	two	0.5
Total	461	100%

In patients undergoing prostate surgery, constipation was associated with the related factor Decreased Gastrointestinal Mobility, which was present in 22 patients and the defining characteristic Hypoactive bowel sounds. The ND impaired ambulation showed a significant association with the two related factors and together with the defining characteristic impaired ability to walk a necessary distance. In relation to the nursing diagnosis, impaired dentition was associated with the defining characteristic of absence of teeth. The DE acute pain was significantly associated with the related factor and the defining characteristic: Harmful physical agent and Self-report of intensity using a standardized pain scale. With the use of nursing diagnoses in the process, nurses' activities will be carried out in a systematic and effective manner, which will facilitate the identification of the patient's main health problems, to facilitate immediate medical assistance and health care. Impaired sitting, the related factor Pain, was associated with three defining characteristics, namely: Recommended posture, Impaired ability to maintain the torso in a balanced position and Impaired ability to flex or move both knees. The ND fatigue only showed a significant association with a related factor and defining characteristic of each: Anemia and Fatigue in relation to the ND Risk

of electrolyte imbalance, it demonstrated a statistical association with only the factor related to vomiting, which was present in 10 patients undergoing postectomy. For the ND risk of urinary tract injury, only one extreme risk factor of age was found to be significantly associated (Table 3-6).

Table 3 Distribution of defining characteristics and related factors / risk factors referring to nursing diagnoses Risk of constipation and impaired walking in prostatectomized patients

Nursing diagnosis	Gift	Absent	p-value
Cold			
Related factors			
Decreased Gastrointestinal Mobility	15	15	0.001
Dehydration	4	29	0.289
Changing eating habits	6	27	0.091
Defining characteristics			
Inability to defecate	9	24	0.03
Reduction in stool volume	5	28	0.291
Hypoactive bowel sounds	8	25	0.071
Impaired walking			
Related factors			
Pain	9	24	0.39
Insufficient muscle strength	16	17	0.001
Defining characteristics			
Impaired ability to walk a required distance	24	9	0

Table 4 Distribution of defining characteristics and related factors/risk factors referring to the nursing diagnoses Teething and Acute pain in prostatectomized patients

Nursing diagnosis	Gift	Absent	p-value
Dentition			
Related factor			
Barrier to self-care	6	28	0.006
Difficulty accessing dental care	6	28	0.006
Defining characteristic			
Enamel discoloration	3	31	0.94
Absence of teeth	12	22	0
Inadequate Oral Hygiene	two	32	214
Acute pain			
Related factor			
Harmful physical agent	23	9	0
Defining characteristic			
Self-report of intensity using standardized pain scale	21	11	0
Representative reports pain behavior	two	30	1,000
Sitting Impaired			
Related factor			
Pain	6	27	0
Defining Characteristic			
Recommended posture	9	24	0
Impaired ability to maintain the torso in a balanced position	9	24	0
Impaired ability to flex or move both knees	27	6	0.005

Table 5 Distribution of defining characteristics and related factors/risk factors referring to nursing diagnoses fatigue and risk of acute imbalance in prostatectomized patients

Nursing diagnosis	Gift	Absent	p-value
Fatigue			
Related factor			
Lack of physical conditioning	1	31	1,000
Anemia	14	18	0
Defining characteristic			
Tiredness	10	22	
Increased need for rest	two	30	0.486
Sleep deprivation	two	30	0.486
state of drowsiness	two	30	0.486
Non-restorative sleep pattern	3	29	0.229
Risk of electrolyte imbalance			
Related Factor			
Diarrhea	1	32	0.364
Deficient fluid volume	1	32	0.364
Vomiting	23	10	0

Table 6 Distribution of defining characteristics and related factors/risk factors referring to nursing diagnoses Risk of falls, Risk of injury and risk of delayed surgical recovery in prostatectomized patients

Nursing diagnosis	Gift	Absent	p-value
Risk of urinary tract injury			
Related factor			
Extreme of age	15	17	0
Risk of Falls			
Related factor			
Age ≥ 65 years	10	22	0
Anemia	5	29	

Discussion of results

Nurses must monitor patients with prostate diseases from their diagnosis to the surgical procedure. The nursing team must work together with the family to guarantee dignified and systematized assistance in health care. In this way, the Nursing Process is a very important instrument to assist nursing professionals in organizing and systematizing the care to be provided to individuals, involving everything from decision making and data management to actions and interventions to be carried out. The most frequent nursing diagnoses in patients undergoing prostatectomy were: Impaired walking 5.4%, Constipation 4.8, Risk of infection 6.9, Risk of vascular trauma 7.4%, acute pain 5.4% and Deficit in self-care for bathing 6.7 %. The nursing diagnosis constipation was present in 22 patients hospitalized for prostatectomy, it is defined as a decrease in the normal frequency of evacuation, accompanied by difficult or incomplete elimination of hard and dry feces⁴, these intestinal changes may be related to injuries to the pelvic parasympathetic innervation resulting of surgical manipulation.^{8,9} In these cases, the nursing team has the following intervention: Monitor bowel movements, including frequency, consistency, shape, volume and color, as appropriate, encourage increased fluid intake, unless contraindicated.⁸ Impaired walking is defined as limitation of the movement of walking independently in the environment, this nursing diagnosis was present in 25 patients interviewed in this study, the intervention of the nursing team is to guide the individual regarding the use of walking aids (e.g., walking aids). e.g., crutches, wheelchair, walkers, trapeze bars, cane), maintain a walking program according to tolerance and Instruct the patient and

caregiver on safe transfer and walking techniques.¹⁰ The diagnosis of impaired dentition was frequent in patients aged between 66-75 years old, this age group constitutes one of the risk factors for the development of prostate diseases⁵ with aging, teeth tend to change their color, thickness, composition of dentin and enamel, resulting in the absence of teeth⁹ the diagnosis of impaired dentition is defined as Rupture in the patterns of dental development or in the structural integrity of each tooth, the nursing team has the following activities: Provide guidance and help the patient perform oral hygiene after meals and whenever necessary, recommend the use of a brush with soft bristles, guide the person to brush teeth, gums, tongue and advise on the need for a daily oral care routine.¹¹

Postoperative pain is a common phenomenon, which, in addition to causing suffering, can expose patients to unnecessary risks and various cardiovascular, respiratory, immunological, gastrointestinal and urinary changes, the nursing diagnosis acute pain is defined Sensory and emotional experience unpleasant associated with real or potential tissue damage. The nursing team has great responsibility for these patients, such as: Determining the location, characteristics, quality and severity of the pain before medicating the patient and Administering analgesics at fixed times to avoid peaks and depressions of analgesia, especially in cases of severe pain.¹² The diagnosis Risk of electrolyte imbalance was present in 15 patients, it is understood as being Susceptibility to changes in serum electrolyte levels that can compromise health, whose nursing interventions are: Maintain accurate records of intake and elimination, Monitor the state of hydration (moist mucous membranes, adequate pulses and orthostatic blood pressure), as appropriate, maintain the intravenous solution with electrolytes in a constant drip.⁹ The risk of falls diagnosis can be caused by sedation, physical and biological damage, this diagnosis was present in 25 patients, whose nursing interventions were to monitor the way of walking, balance and level of fatigue with walking and assist the person Unsteady walking.¹³ The nursing team plays a great role in operated patients hospitalized in surgery wards, as there is a need to reinforce research in this area of nursing diagnoses and interventions, so based on the most frequent diagnoses, the nursing team will prescribe nursing interventions to achieve the desired results in patients undergoing prostatectomy.

Conclusion

The study demonstrates how important it is to present nurses with the nursing process to facilitate the identification of health problems in sick patients with a view to intervening in care using real nursing diagnoses, risk and health promotion. During the study, some difficulties were found in carrying out the research: lack of information on clinical and nursing processes such as (weight, blood glucose, body mass index). It is hoped that the results of this research will serve as an example for further studies in the area of nursing in

Mozambique and that nurses will use the nursing process to develop a health care assistance plan including prescription and intervention of care.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

References

1. Debone MC, Marques S, Kusumota L. Nursing diagnoses in elderly people with chronic kidney disease on hemodialysis. *Rev Bras Enferm.* 2017;70(4):833–839.
2. Janine R, Menezes DC, Bom GC. Nursing diagnoses and interventions in children undergoing cochlear implantation. *Rev Esc Enferm.* 2017;51:1–7.
3. Adeloye D, David RA, Aderemi AV. An estimate of the incidence of prostate cancer in Africa: a systematic review and meta-Analysis. *PLoS One.* 2016;11(4):1–18.
4. WHO. Global action plan for the prevention and control of noncommunicable diseases 2013.
5. Chronic and non-communicable diseases in Mozambique. 2018.
6. Matias LS, Lind BK, Maphossa AM, et al. Cancer incidence and radiation therapy in Mozambique – a comparative study to Sweden. *Acta Oncol.* 2014;53(5):712–715.
7. Saldanha DA, Medeiros DA, Beatriz A, et al. Nursing diagnoses in patients undergoing prostatectomy: identification of the significance of its components. *Rev Bras Enferm.* 2014;67(3):430–437.
8. Heather H, Shigemi K. *Nanda International Nursing diagnoses 2018–2020.* São Paulo; 2018:1187.
9. Dam JH, Gosseelink MJ, Drogendijk AC, et al. Changes in bowel function after hysterectomy. *Dis Colon Rectum.* 1997;40(11):1342–1347.
10. Prior A, Stanley KM, Smith ARB. Relationship between hysterectomy and the irritable bowel: a prospective study. *Gut.* 1992;33(6):814–817.
11. Bulechek GM, City I, Butcher HK, et al. Classification of nursing interventions. *Medinfo.* 1995;8:1368.
12. Cancer in De. *National prostate cancer control program.* Rio de Janeiro: 2002.
13. Haberkern K. *The role of the elderly as providers and recipients of care.* Future family to 2030.