ORIGINAL ARTICLE

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EDUCATIONAL INTERVENTION FOR SELF-MANAGEMENT OF CONTINUOUS DRAINAGE IN THE POSTOPERATIVE PERIOD OF MASTECTOMY[a]

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ABSTRACT

This study assessed how well patients who had undergone breast cancer surgery monitored their continuous drainage system after receiving one-to-one instructions at the Mastology Outpatient Clinic of Hospital São Paulo at Federal University of São Paulo. Participants were 79 women who had undergone breast cancer surgery between May 2009 and March 2010, and were using a drain. It was found that the self-care training that the patients received, in addition to the strategy used in that training, had a positive effect on their self-monitoring of the continuous drainage, which prevented the drain from clogging, evinced by the percentage of patients who maintained the permeability of the drainage system (84.2%).

Descriptors: Breast neoplasms. Postoperative care. Suction. Self care. Patient discharge. Simulation.

RESUMO

Trata-se de um estudo de intervenção educativa desenvolvido com o objetivo de avaliar o desempenho de pacientes submetidas à cirurgia por câncer de mama, no automonitoramento do sistema de drenagem contínua. Foi realizado no Ambulatório de Mastologia do Hospital São Paulo da Universidade Federal de São Paulo, entre maio de 2009 e março de 2010, após aprovação pelo Comitê de Ética em Pesquisa dessa instituição. Participaram 79 mulheres que realizaram cirurgia por câncer de mama e portadoras do dreno. A intervenção constou de: aula e simulação do manejo do sistema de drenagem contínua, avaliação do desempenho e reforço das orientações. Constatou-se que o treinamento com foco no autocuidado exercido pelas pacientes, bem como a estratégia utilizada influenciaram favoravelmente o automonitoramento do sistema de drenagem contínua, propiciando a prevenção de obstrução do mesmo, evidenciada pelo percentual de pacientes que mantiveram a perviedade do sistema (84,2%).

Descritores: *Neoplasias da mama. Cuidados pós-operatórios. Sucção. Autocuidado. Alta do paciente. Simulação.*
Título: *Intervenção educativa para o automonitoramento da drenagem contínua no pós-operatório de mastectomia.*

RESUMEN

El objetivo de esta investigación fue evaluar el desempeño de pacientes sometidas a cirugía por cáncer de mama, en lo que respecta al automonitoreo del sistema de drenaje continuo, después de haber pasado por acción educativa individualizada, con apoyo de manual instructivo. Se trata de un estudio de intervención educativa, realizado en el Ambulatorio de Mastología del Hospital São Paulo, de la Universidad Federal de São Paulo, de mayo de 2009 a marzo de 2010, previamente aprobado por el Comité de Ética en Investigación de la institución. Participaron 79 mujeres sometidas a cirugía por cáncer de la mama y portadoras de dreno. Se constató que el entrenamiento direccionado al autocuidado realizado por las pacientes, así como la estrategia educativa utilizada, influenciaron positivamente el automonitoreo del sistema de drenaje continuo, propiciando la prevención de la obstrucción, evidenciada por el porcentaje de pacientes que mantuvieron el sistema desobstruido (84,8%).

Descriptores: *Neoplasias de la mama. Cuidados postoperatorios. Succión. Autocuidado. Alta del paciente. Simulación.*
Título: *Intervención educativa para el automonitoreo del drenaje continuo en el posoperatorio de mastectomía.*

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INTRODUCTION

Although breast cancer has a relatively good prognosis if diagnosed and treated early, the magnitude of epidemiological data related to this type of cancer, as well as the implications of its diagnosis and treatment on women's lives, reinforces the need to investigate the different aspects of the disease[1].

One aspect addressed in this study concerns surgical treatment, with focus on self-management of continuous drainage.

Breast removal surgery results in a potential dead space where lymph and blood from the wound of small blood and lymph vessels may collect[2]. For this reason, most surgeons are using continuous suction drainage, especially after mastectomy or quadrantectomy, with axillary lymph node dissection to remove these accumulations, in order to decrease seroma formation, a frequent complication characterized by serous fluid accumulation in the operative field[2]. To avoid this complication, drainage tubes for by negative pressure (suction), such as, Porto-vac, are put in place until the 24-hour drainage is equal to or lower than 30 ml for a 7 -10 day-period, according to the therapeutic indications described in the literature [1-4]. According to researchers, certain facts such as high body mass index, radical surgeries and advanced age of patient, contrary to expected, do not interfere in seroma formation, and, thus, on the duration of suction drainage[2,5]. However, few studies have demonstrated the relationship of these factors with clogging of the suction drainage system.

The quality of life during the postoperative period may be compromised, especially if there is doubt and anxiety associated to care of the drainage system[4]. Since the institution where the study was conducted adopts early hospital discharge, it is essential to invest in formal mechanisms to guide hospital discharge, to ensure safe self-management by patients.

The study used as reference to conceptualize self-management defines it as "the monitoring of specific physiological parameters or the emergence of a specific symptom of a disease" in order to promote self-management, reduce complications and identify the moment when assistance from a health professional should be sought [6]. It is worth mentioning that the referred study links this concept to broader concepts such as self-management or self-care. The authors of that article consider self-management as a skill or process used by patients to gain control over that disease, rather than being controlled by it. This process, or the development of this skill, includes monitoring of health status and the use of strategies to manage treatment, symptoms, medications and other implications associated to chronic diseases[6]. Self care, in turn, is defined as a concept that comprises self-management and self-monitoring: patients' ability to care for themselves and to promote, maintain and protect their health, including the implementation of specific activities required by chronic and acute diseases[6]. Another study affirms that the health team may help the patient develop this skill, or begin this process, through educational programs[7].

The Ministry of Health emphasizes the importance of educational programs within the context of nursing actions, by considering education in health as a discipline where the professional practice involves raising people's awareness of some important issues, so that they develop critical judgment and the ability to intervene in their lives and on their environment, thus creating the conditions to control their own lives[8]. Therefore, the educational process becomes the basic intervention on the development of the hospital discharge plan, and the nurse is supposed to promote actions that enable the patient to perform self-care, improving the rehabilitation process and, thus, contributing to reduce possible postoperative complications, including drain clogging.

In this study, the reference of the educational process was significant learning characterized by the organization and integration of information in the cognitive structure of the learner, based on his/her ability to handle and use this information in a future situation [9].

Therefore, and considering the need to instruct the patient to perform self-management of the continuous drainage system, after hospital discharge, a simulation step aimed to teach some skills was included. It is a learning technique based on a similar situation and managed by an instructor, which favors the identification of potentialities and/or limitations of the learner, making it possible to promote corrective interventions. This also allows the patient to have a systematized learning,

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favoring one key aspect of the technique, which is repetition [10].

Another instrument that has been widely used in clinical practice with the purpose of supporting patient's self-care is the Care Guide. This guide should be prepared based on scientific evidence and include information that complement the guidance process and the development of skills[11].

Providing information to the patient on her real status causes her to make decisions on her recovery and to become an active participant in this process[12]. This active participation, through which it is believed that the patient is able to organize and perform actions required for self-care is called self-efficacy by some authors[6,7]. This is a dynamic characteristic that varies from one patient to the other, through which patients get hold of information related to their care [6]. The nurse's role in the educational process, therefore, should be to help the patient, by providing guidance when appropriate, which will lead to a better quality of life, because by having access to this information, the patient will be able to decide on the best way to take care of herself [13].

Based on these assumptions, we posed the following question:

The interactive teaching strategy adopted in the management training program of the continuous drainage system in women undergoing breast cancer surgery is effective in promoting self-management of this equipment at home?

Therefore, the objectives of this study were: verify the effectiveness of the educational strategy to promote self-monitoring of the drainage system and examine the association between the variables "type of surgery", "body mass index" (BMI), "duration of suction drainage", with or without maintenance of drain permeability.

METHOD

This is a prospective study of educational intervention[14], developed at the Gynecology Inpatient Unit and the Mastology Outpatient Clinic of Hospital São Paulo, at Universidade Federal de São Paulo, from May 2009 to March 2010, after project approval by the Research Ethics Committee of Universidade Federal de São Paulo under protocol No 1831/08.

A convenience sample was used in the study, composed by 79 women who met the following inclusion criteria: surgical indication for the treatment of breast cancer with drainage system, be over 18 years, demonstrate, by means of consistent conversation, ability to understand the instructions received and physical conditions to handle the continuous drainage system.

The data collection and educational intervention are described in the following figure.

SPSS 16.0 software was used for statistical analysis and a significance level of 5% (p<0.05) was adopted. Categorical variables were analyzed using one-way and multi-way (percentage) frequencies, and mean, standard deviation, minimum and maximum values were calculated for quantitative variables. To assess the association between clogging and categorical variables, such as educational level, age range and nutritional status Chi-square test was used, or Fisher's Exact test when one or more expected values were less than five. Homogeneity of quantitative variables among patients with clogging and those without clogging was assessed by Mann-Whitney test.

RESULTS

According to the analysis of sociodemographic characteristics, of the 79 women who participated in the study, the majority (40%) was aged 51-65 years (minimum age: 26 years maximum: 84 years; SD ± 13). Most participants had elementary education (68.4% of the study sample). Regarding employment status, 45.6% of the participants reported having a paid job outside home, 35% said they were 'housewives" and 19% were retired.

In Table 1, it can be seen that more than two thirds of the patients had body mass index above the healthy range. Most of them underwent mastectomy and used the drain for up to 8 days.

In Table 2, the associations between the categorical variables duration of suction drainage, body mass index and type of surgery, with the rates of clogging of the drainage system, can be seen. Regarding the permeability of the drainage system, in 67 patients (84.8%) the drain tube remained permeable and in 12 (15.2 %) there was clogging. Of these clogs, 11 occurred in women who used drain tubes for more than 8 days and who underwent mastectomy. Cross-tabulation of
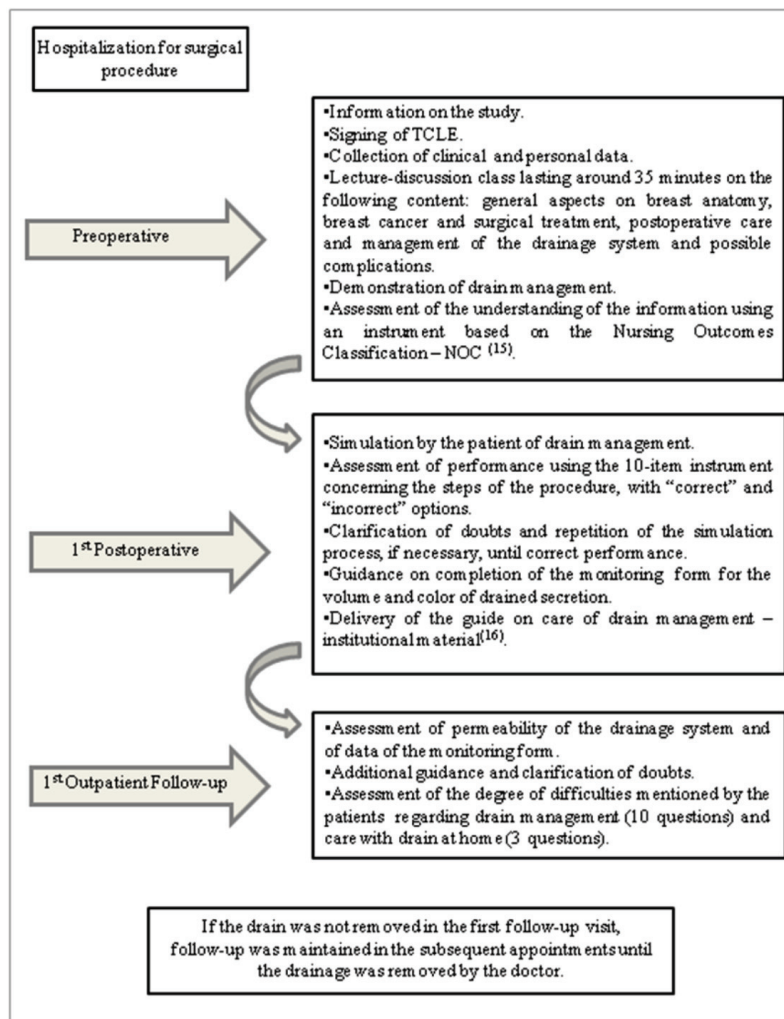
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Hospitalization for surgical procedure

Preoperative →
- Information on the study.
- Signing of TCLE.
- Collection of clinical and personal data.
- Lecture-discussion class lasting around 35 minutes on the following content: general aspects on breast anatomy, breast cancer and surgical treatment, postoperative care and management of the drainage system and possible complications.
- Demonstration of drain management.
- Assessment of the understanding of the information using an instrument based on the Nursing Outcomes Classification – NOC [15].

1st Postoperative →
- Simulation by the patient of drain management.
- Assessment of performance using the 10-item instrument concerning the steps of the procedure, with "correct" and "incorrect" options.
- Clarification of doubts and repetition of the simulation process, if necessary, until correct performance.
- Guidance on completion of the monitoring form for the volume and color of drained secretion.
- Delivery of the guide on care of drain management – institutional material [16].

1st Outpatient Follow-up →
- Assessment of permeability of the drainage system and of data of the monitoring form.
- Additional guidance and clarification of doubts.
- Assessment of the degree of difficulties mentioned by the patients regarding drain management (10 questions) and care with drain at home (3 questions).

If the drain was not removed in the first follow-up visit, follow-up was maintained in the subsequent appointments until the drainage was removed by the doctor.

Figure 1 – Data collection and educational intervention stages. São Paulo, 2010.

the variables duration of suction drain and clogging rate showed a higher percentage of clogged drains among those patients who used drains for 9 days or longer compared to the percentage observed in the patients who used drains up to 8 days (Fischer p <0.001).

The association between the incidence of clogging and the type of surgery performed was not statistically significant (Fisher p=0.332). However, there was a higher percentage of clogging in patients who underwent mastectomy compared to those who underwent other types of surgery (Fisher p=0.022).

Regarding the relationship between BMI and the incidence of clogging of the continuous drainage system there was no statistically significant association (Fisher p =0.513). However, a statistically significant difference in average BMI above the normal values. l (>25 kg/m²) was observed for patients with clogged drain compared to patients whose drains were not clogged (Mann-Whitney p=0.023). Or else, clogged drains occurred more often in patients with BMI above the healthy (normal) levels.

The following are data on the educational program for self-management of the continuous drainage system. It is worth mentioning that the criteria for assessment of performance, in the first stage, have been developed from the "Nursing Outcomes Classification – NOC"[18]. The five-point Likert scales were reduced to three points, namely: "limited (L)", "regular (R)" and "very good (VG)", defined according to their items, as follows:

- Explanation of the purpose of the drainage system – VG: "drain the liquid". – R: not applicable. – L: cannot tell;

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Table 1 – Clinical and surgical characteristics of women who underwent breast cancer surgery at Hospital São Paulo, who used the continuous drainage system. São Paulo, SP, 2010.

Clinical and surgical data	n	%	Mean ± Standard Deviation	Minimum and Maximum
BMI				
Below normal (< 18.5kg/m²)	2	2.5		
Eutrophic (18.5 - 25kg/m²)	24	30.4		
Above normal (>25 kg/m²)	53	67.1		
Type of surgery performed				
Mastectomy	47	59.5		
Quadrantectomy without axillary dissection	13	16.5		
Quadrantectomy with axillary dissection	13	16.5		
Adenomastectomy	3	3.8		
Margin enlargement	2	2.5		
Excision of local recurrence	1	1.3		
Duration of suction drainage			9.4 ± 3.2	3 - 19
Up to 8 days	46	58.2		
9-14 days	25	31.6		
> 14 days	8	10.1		

- Description of care with the drainage system at home – VG: describe 4 to 6 types of care*. – R: describe only 3 – L: describe 2 or less. (*care provided: observe color and quantity every day at the same time;, use surgical tweezers to drain liquid in the balloon 3 times/day; keep drain below the insertion level; observe folding in drain extension; keep the drain without air, prevent drain from being pulled out of the surgical site.);
- Description of the steps of the continuous drainage system management – VG: describe all the steps in the correct sequence**. R: describe up to 7 steps in the correct sequence. L: describe less than 7 steps in the correct sequence. (**Correct sequence: wash hands with soap and water, dry them with clean cloth; close tweezers of the drain extension; open drain cover; remove liquid from the drain with circular motions, throwing it on a disposable paper cup; compress the drain to remove all air; close the lid with drain compressed; open the tweezers at drain extension (nozzle); observe color and amount of drained liquid; discard contents of the paper cup in the toilet and flush.);

- Description of possible intercurrences *** – VG: cite the 3 intercurrences. – R: cite only 2 - L: cite 1 or none (***Intercurrences: accumulation of air in the drain, drain is clogged or out of the surgery site and disconnection of part of the drainage system.);
- Description of three appropriate actions to manage intercurrences – MB: describe the actions taken to manage the three intercurrences correctly, – R: describe the actions taken to manage one or two intercurrences correctly – L: describe the actions taken to manage the three intercurrences incorrectly.

As described in Table 3, it can be seen that following the theoretical instructions, only half of the patients was able to correctly describe the steps for the management of the drainage system, and a similar percentage of patients did not know how to describe the possible intercurrences and care of the drain at home.

However, in Table 4, it can be seen that after practical training the patients had greater mastery of the knowledge about management of drainage system, which was demonstrated by the percentage of participants who correctly performed the steps of this procedure.

Table 2 – Intersection of the variables duration of suction drainage, type of surgery performed and body mass index in women who underwent breast cancer surgery at Hospital São Paulo, who used continuous drainage system. São Paulo, SP, 2010.

		Rate of drain permeability	Rate of drain clogging	Total	Fischer' test
Duration of suction drainage					
Up to 8 days	n	45	1	46	
	%	97.8%	2.2%	100.0%	
9-14 days	n	17	8	25	
	%	68.0%	32.0%	100.0%	p<0.001
> 14 days	n	5	3	8	
	%	62.5%	37.5%	100.0%	
Total	n	67	12	79	
	%	84.8%	15.2%	100.0%	
Type of surgery performed					
Mastectomy	n	36	11	47	
	%	76.6%	23.4%	100.0%	
Quadrantectomy without axillary dissection	n	12	1	13	
	%	92.3%	7.7%	100.0%	
Quadrantectomy with axillary dissection	n	13	0	13	
	%	100.0%	,0%	100.0%	
Adenomastectomy	n	3	0	3	p=0.332
	%	100.0%	,0%	100,0%	
Margin enlargement	n	2	0	2	
	%	100.0%	,0%	100.0%	
Excision of local recurrence	n	1	0	1	
	%	100.0%	,0%	100.0%	
Total	n	67	12	79	
	%	84.8%	15.2%	100.0%	
BMI					
Below normal (< 18.5kg/m²)	n	2	0	2	
	%	100.0%	,0%	100.0%	
Eutrophic (18.5 - 25kg/m²)	n	22	2	24	
	%	91.7%	8.3%	100.0%	p=0.513
Above normal (>25 kg/m²)	n	43	10	53	
	%	81.1%	18.9%	100.0%	
Total	n	67	12	79	
	%	84.8%	15.2%	100,0%	

Regarding the degree of difficulty in self-management of drain at home, the patients reported having performed with ease most steps. The transportation of the drain was the only item considered with regular difficulty (38%) or difficult (16.5%).

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Table 3 – Assessment of the theoretical knowledge of women who underwent breast cancer surgery at Hospital São Paulo, who used continuous drainage system. São Paulo, SP, 2010.

Data concerning the evaluation of theoretical knowledge	Limited		Regular		Very Good	
	n	%	n	%	n	%
Explanation of the purpose of the drainage system	6	7.6	*	*	73	92.4
Description of the care with drainage system at home	34	43.0	22	27.8	23	29.1
Description of the steps in the management of the continuous drainage system	12	15.2	26	32.9	41	51.9
Description of the possible intercurrences	35	44.3	31	39.2	13	16.5
Description of appropriate actions to manage intercurrences	29	36.7	24	30.4	26	32.9

Table 4 – Assessment of practical knowledge of women who underwent breast cancer surgery at Hospital São Paulo, who used continuous drainage system. São Paulo, SP, 2010.

Data concerning the assessment of practical knowledge after simulation	Correct		Incorrect	
	n	%	n	%
Wash hands with soap and water, dry them with clean cloth	54	68.4	25	31.6
Close tweezers of the drain extension	73	92.4	6	7.6
Open drain cover	78	98.7	1	1.3
Remove liquid from the drain with circular motions, , throwing it on a disposable paper cup	76	96.2	3	3.8
Compress the drain to remove all air	57	72.2	22	27.8
Close the lid with drain compressed	59	74.7	20	25.3
Open tweezers at drain extension	62	78.5	17	21.5
Observe the color and amount of drained liquid	60	75.9	19	24.1
Discard contents of the paper cup in the toilet and flush	78	98.7	1	1.3
Demonstrate pumping of the balloon of the drainage system to prevent clogging	78	98.7	1	1.3

DISCUSSION

Most simulation studies on health published in recent years concern the teaching-learning process during professional training, or discuss the environments that use simulators to teach health professionals. Despite the lack of studies on simulation applied to direct care to patients, several studies address the plan for hospital discharge for chronic patients using educational strategist in the pre and postoperative periods., such as lectures, workshops, PC-based activities, with the same purpose of seeking patient's adherence to treatment, and, consequently, their recovery[12,17-19].

Given the effectiveness of simulation in the teaching of professionals and based on the theory that adults learn more when teaching methods that involve senses other than sight and hearing, we invested in the use of simulation combined with lecture classes, to teach the patient on the hospital discharge schedule and on specific care to be taken at home[10]. This study demonstrated the success of these guidance activities, with patients being able to manage the drainage system after the practical training/simulation. The evaluation performed after the theoretical guidance indicated that 51.9% or the patients described the sequence of steps to be made concerning care with drain correctly, and 85.4% performed the technique correctly. Thus, the importance of simulation as part of the teaching of self-monitoring not only of the continuous drainage system, but also of any other device for domestic use is clear.

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Based on the results obtained, we defined the profile of the patient that requires greater attention of the nurse professional during hospital discharge, since the rate of clogging was higher in patients with BMI above normal values, in patients who underwent mastectomy and in those who used the drain for more than 9 days. However data related to the number of patients n the group with BMI below normal, atrophic and above normal data still need confirmation. So, further studies may be needed to assess drainage system clogging among groups of patients with different BMI values.

Several studies attempt to understand whether factors such as body mass index, surgical time, patient age may interfere in the duration of suction [2,5]. On the other hand, we chose to assess whether these variables were associated with the rates of drainage system clogging, because of the high incidence of this adverse event in a previous research at the same hospital, where drain clogging ranged from 45 to 53.8%, and also due to the lack of studies aimed at determining acceptable rates or describing strategies to reduce this event[20]. In view of the results obtained in this study, it is believed that the combination of educational strategies capable of promoting the acquisition of new skills, such as simulation and control of self-management of drainage system at home, has favored the prevention of drain clogging. It was found that 84.8% of the patients maintained the permeability of the drainage system.

According to the Ministry of Health, the chronic care model for chronic illnesses such as cancer consists in productive interactions between active and informed users and a proactive and well-prepared health team[13]. To achieve this interaction, the health system should include: clinical information system, support to patient decision, a system aimed to provide services and guidance to self-management. Thus, it is possible to obtain favorable clinical and functional results. The educational strategy used in this study comprises these items and has demonstrated to benefit patients and the healthcare system. It is suggested that health professionals attempt to improve their working activities practicing evidence-based care and focusing on excellence.

CONCLUSION

This study showed that the combination of the educational strategies implemented favored the prevention of drain clogging, since 84.8% of the patients maintained the permeability of the drainage system.

Besides, the method adopted allowed health professionals to meet the patients' information needs in a more effective and customized way, so that the patients were more able to manage the drainage system after practical training.

Regarding the impact of the variables studied, the rate of drain clogging was found to increase in patients with BMI above the normal range and in those who underwent mastectomy. It was also found that patients who used the drain for a longer period of time were more prone to drain clogging. These results impact the professional practice by providing support to the planning and implementation of nursing actions aimed to help patients perform self-management of the continuous drainage system, in order to prevent complications.

Finally, the results obtained demonstrate the importance of adopting a plan of hospital discharge for patients with early discharge, aimed to reduce the occurrence of preventable complications and to provide elements to improve the quality of nursing care.

REFERENCES

1   Instituto Nacional do Câncer (INCA). Estimativa 2012: incidência de câncer no Brasil [Internet]. 2012 [citado 2012 Out 27]. Disponível em: http://www1.inca.gov.br/estimativa/2012/index.asp?ID=5.

2   Iida S, Furukawa K, Yanagihara K, Iwasaki R, Kurita T, Tsuchiya S, et al. An analysis of factors that influence the duration of succion dreinage in breast cancer surgery. J Nippon Med Sch. 2008;75(6):332-336.

3   Stephan P. About.com Guide. Surgical drains – how to manage your surgical drains. [Internet]. 2008 [cited 2012 Nov 04]. Available from: http://breastcancer.about.com.

4   Ganzella M, Zago MMF. A alta hospitalar na avaliação de pacientes e cuidadores: uma revisão integrativa da literatura. Acta Paul Enferm. 2008;21(2):351-5.

5   Assi HA, Khoury KE, Dbouk H, Khalil LE, Mouhieddine TH, Saghir NSE. Epidemioloy and prognosis of brast cancer in young women. J Thorac Dis. 2013;5(SI):S2-S8.

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6   Richard AA, Shea K. Delineation of self-care and associated concepts. J Nurs Scholarsh. 2011;43(3):255-264.

7   Lorig KR, Holman HR. Self-management education: history, definition, outcomes and mechanisms. Ann Behav Med. 2003;26(1):1-7.

8   Levy SN, Silva JJC, Cardoso IFR, Werberich PM, Moreira LLS, Montiane H, et al. Educação em saúde: históricos conceitos e propostas. Ministério da Saúde. Conferência Nacional de Saúde On-line [Internet]. [citado 2009 Maio 22]. Disponível em: http://www.datasus.gov.br/cns/temas/educacaosaude/educacaosaude.htm.

9   Gomes AP, Coelho UCD, Cavalheiro PO, Gonçalvez CAN, Roças G, Batista RS. A educação médica entre mapas e âncoras: a aprendizagem significativa de David Ausubel, em busca da arca perdida. Rev Bras Educ Med. 2008;32(1):105-111.

10 Santos MC, Leite MCL. A avaliação das aprendizagens na prática da simulação em enfermagem como feedback de ensino. Rev Gaucha Enferm. 2010;31(3):552-556.

11 European Oncology Nursing Society (EONS). What is a guideline? [Internet]. 2010 [cited 2010 Nov 03]. Available from: http://www.cancernurse.eu/education/guidelines.html.

12 McCorkle R, Ercolano E, Lazenby M, Schulman-Green D, Schilling LS, Lorig K, et al. Self-management: enabling and empowering patients living with cancer as a chronic illness. CA Cancer J Clin. 2011;61(1):50-62.

13 Mendes EV. Vigilância em saúde e atenção primária à saúde: alinhamento conceitual e o estabelecimento de novas práticas necessárias para o avanço do SUS. In: 9º EXPOEPI; 2009 Nov 18-20; Brasília, DF, Brasil [Internet]. Brasília (DF): MS; 2009 [citado 2011 Abr 20]. Disponível em: http://portal.saude.gov.br/portal/arquivos/pdf/vigilancia_em_saude_e_atencao_primaria.pdf.

14 Esteves MT. Ensino do autocuidado para o controle da drenagem contínua no pós-operatório de cirurgia oncológica de mama [monografia]. São Paulo (SP): Escola Paulista de Enfermagem, Universidade Federal de São Paulo; 2010.

15 Moorhead S, Marion J, Maridean M. Classificação dos Resultados de Enfermagem (NOC). 3ª ed. Porto Alegre: Artmed; 2008. p. 287.

16 Gutiérrez MGR, Taveira GMA, Esteves MT. Orientações de enfermagem para o autocuidado no pós-operatório de cirurgia de mama [Internet]. São Paulo: UNIFESP; 2010 [citado 2013 Mar 01]. Disponível em: http://www.unifesp.br/dgineco/mastologia/apoio-ao-paciente/Manual Cuidados com Dreno.ppt/view.

17 Barry M, Weber WP, Lee S, Mazzella A, Sclafani LM. Enhancing the clinical pathway for patients undergoing axillary lymph node dissection. The Breast. 2012;21(2012):440-443.

18 Gao WJ, Yuan CR. Self-management programme for cancer patients: a literature review. Int Nurs Rev. 2011;58(3):288–295.

19 Nascimento LS, Gutierrez MGR, De Domenico EBL. Programas educativos baseados no autogerenciamento: uma revisão integrativa. Rev Gaúcha Enferm. 2010;31(2):375-82.

20 Gutiérrez MGR, Pinelli FGS, Areias VL, Barbi T. Avaliação de um programa educativo sobre os cuidados com o sistema de drenagem para cuidadores de mulheres mastectomizadas. Acta Paul Enferm. 2004;17(4):412-418.

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