

THE NURSE-LEADER IN THE MANAGEMENT OF RISK FOR THE PREVENTION AND CONTROL OF INFECTIONS IN PATIENTS WITH CANCER*

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ABSTRACT: This study aimed to develop nursing leadership strategies directed towards the incorporation of measures for the prevention and control of healthcare-associated infections in patients with cancer. It involved Convergent Care Research undertaken in an interactive process with nine nurses, in 2013, in an oncological hospital in the interior of Minas Gerais, with treatment of the data through software. Five classes emerged, representing the tendencies of the strategies. Class 1: the presence of the nurse-leader in the inpatient departments; class 2: the work process of the nurse-leader; class 3: handwashing; class 4: the nurse of the hospital infection control committee as a partner of the nurse-leader; and class 5: the promotion of knowledge regarding infections for the nursing team. For the nurses, the elaboration of the leadership strategies is a bet used according to the situation, in order to take account of the unpredictability present in the context and the need to adopt an educational attitude.

DESCRIPTORS: Oncology nursing; Leadership; Cross infection; Safety management; Patient safety.

O ENFERMEIRO - LÍDER NO GERENCIAMENTO DE RISCO PARA PREVENÇÃO E CONTROLE DE INFECÇÕES EM PACIENTES COM CÂNCER

RESUMO: O estudo objetivou elaborar estratégias de liderança em enfermagem voltadas à incorporação de medidas de prevenção e controle de infecções relacionadas à assistência à saúde em pacientes com câncer. Pesquisa Convergente Assistencial desenvolvida num processo interativo com nove enfermeiros, em 2013, num hospital oncológico do interior de Minas Gerais, com tratamento dos dados por meio de *software*. Emergiram cinco classes que representam as tendências das estratégias. A classe 1: a presença do enfermeiro-líder nos setores de internação; classe 2: o processo de trabalho do enfermeiro-líder; classe 3: a higienização das mãos; classe 4: o enfermeiro da comissão de controle de infecção hospitalar como parceiro do enfermeiro-líder; e classe 5: a promoção do conhecimento sobre infecções para a equipe de enfermagem. Para os enfermeiros a elaboração das estratégias de liderança é aposta empreendida de acordo com a situação, para dar conta da imprevisibilidade presente no contexto e a necessidade de adotar atitude educativa.

DESCRIPTORES: Enfermagem oncológica; Liderança; Infecção hospitalar; Gerenciamento de segurança; Segurança do paciente.

EL ENFERMERO - LÍDER EN LA GESTIÓN DE RIESGO PARA PREVENCIÓN Y CONTROL DE INFECCIONES EN PACIENTES CON CÁNCER

RESUMEN: Estudio cuyo objetivo fue elaborar estrategias de liderazgo en enfermería referentes a la adopción de medidas de prevención y control de infecciones asociadas a la asistencia a la salud en pacientes con cáncer. Investigación Convergente Asistencial desarrollada por proceso interactivo con nueve enfermeros, en 2013, en hospital oncológico del interior de Minas Gerais. El tratamiento de los datos fue hecho por medio de *software*. Resultaron del estudio cinco clases que representan las tendencias de las estrategias. Clase 1: presencia del enfermero-líder en los sectores de internación; clase 2: proceso de trabajo del enfermero-líder; clase 3: higienización de las manos; clase 4: enfermero de la comisión de control de infección hospitalar como asociado del enfermero-líder; y clase 5: promoción del conocimiento acerca de infecciones para el equipo de enfermería. Para los enfermeros, la elaboración de estrategias de liderazgo es una apuesta hecha de acuerdo con la situación, para abarcar la imprevisibilidad presente en el contexto y la necesidad de adoptar actitud educativa.

DESCRIPTORES: Enfermería oncológica; Liderazgo; Infección hospitalar; Administración de seguridad; Seguridad del paciente.

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● INTRODUCTION

In Brazil, one important landmark for ensuring patient safety was the publication of the National Patient Safety Program (PNSP), whose objective was to prevent and reduce the incidence of healthcare-related adverse events in the health services⁽¹⁾. Among the adverse events mentioned in the PNSP, emphasis is placed on healthcare-associated infections (HCAI) categorized as avoidable, that is to say, whose risk can be managed.

It is understood to be relevant to address the issue of prevention and control of HCAI as it is a persistent issue and one that is of interest for all the scenarios of healthcare provision. In oncological care, it is a priority on the research agendas found in care practice, in the light of the risk posed by infections which are reflected in high rates of incidence and mortality in this clientele⁽²⁻³⁾.

The term 'risk' refers to the probability of the exposure of patients with cancer to the occurrence of infection as an adverse event, resulting from a set of aspects. Even if one refers directly to the patient – to her individual aspects – this fits within the perspective of the conditions of provision of healthcare, that is, the patient is at risk of acquiring HCAI due to the context itself in which she finds herself, as a result of professional practice which does not adopt safety guidelines for the prevention and control of infections^(1,4).

In the perspective of this issue, it is considered that the prevention and control of HCAI are inherent to the nursing care, and that simple and effective measures can prevent and reduce risks and harm⁽⁵⁻⁶⁾. For this enterprise, the figure of the nurse-leader stands out as she is on the frontline of the care process, being the subject who can promote the leadership type and strategies adopted for implementation of planned actions⁽⁷⁻⁸⁾. However, this aspect constitutes a gap in the global knowledge, shaping the elaboration of leadership strategies for safe care as a priority⁽⁹⁾.

Complex thinking brought a philosophical basis for supporting this study⁽¹⁰⁾, due to the need for the nurse-leader to face the variety of situations in the managerial routine. Strategy is understood as action and supposes complexity, is thinking on one's feet, is luck, is dealing with the unpredictable, and involves initiative and transformations⁽¹⁰⁾.

In the light of the complex nature of the issue, leadership strategies in nursing for the incorporation of measures for the prevention and control of HCAI in patients with cancer are presented as the study object. This study aimed to elaborate leadership strategies in nursing geared towards the incorporation of measures for the prevention and control of HCAI in patients with cancer.

● METHODOLOGY

This is a study undertaken using the Convergent Care Research (CCR) method, whose design sought to outline the meeting that involves questions of scientific investigation and of care practice⁽¹¹⁾ in a hospital licensed as a High Complexity in Oncology Unit (UNACON, in Portuguese), situated in the municipality of Juiz de Fora, in the Brazilian state of Minas Gerais.

The study participants were selected in accordance with the following inclusion criteria: to be a nurse-leader working in the management of the care process in the inpatient departments and to have worked in the institution for more than three months. The following were defined as exclusion criteria: the professionals who declined to participate in the study; the professionals working in the Sterile Services Department, the surgical center and in nursing audit; and those who were absent in the data collection period due to holidays or being on leave.

The data collection period took place in 2013. At the time of data collection, a total of 20 professionals worked as nurses in the institution, it being the case that 16 met the inclusion criteria, of whom one declined to participate in the study.

The study was therefore undertaken with the 15 nurses who accepted to participate in it, in a process of raising awareness and identification of problem-situations faced in the implementation of measures for the prevention and control of HCAI with the nursing professionals. The analysis of these data

relating to the problem-situations supported the formulation of guiding questions for the elaboration of leadership strategies through a discussion group. The nurses were consulted for finding the best time and place for holding the discussion group, opting for the hospital's own study center. On the day agreed, nine nurses attended; the others later explaining their absences, which were related to unforeseen events of a personal or professional nature.

The researchers adopted the idea of a small group for production of data, which is considered as a live system made up of human individuals-subjects, who possess language, culture and awareness, and as an essential human activity in the process of social production and organization⁽¹²⁾. In order to systematize the operational aspects, emphasis was placed on planning, warm-up and theoretical work as activities referent to the framing of the group work⁽¹³⁾.

Initial questions were elaborated which represented problem-situations experienced by these people in the leadership process, for leading the work in the group, which were presented with the intention of instigating discussion and reflection regarding the leadership strategies which they could adopt or had already adopted for working in that issue. The criteria selected for terminating data collection was saturation of the participants' accounts, when the group arrived at agreement that they should pass on to another point for discussion⁽¹³⁾. The group's meeting lasted for 2 hours.

The treatment of the data was undertaken using the Alceste software⁽¹⁴⁾. Following transcription of the participants' accounts, the text was prepared in accordance with the Alceste software's guidelines, forming the corpus of analysis of the data. The corpus analyzed was made up of a single Initial Context Unit (ICU), that is, the corpus was analyzed in a single discourse as the point of interest, in the collective organization of the strategies, was to identify in the lexical world elaborated by the group of nurse-leaders, what the nursing leadership strategies directed towards the incorporation of measures for the prevention and control of HCAI in patients with cancer were, as well as what the possibilities and challenges for these to be implemented in practice were.

The organization for analysis and interpretation of the data was undertaken in accordance with the partitioning of the five classes which emerged as the product of the analysis of the data developed by the program. In the Alceste software, the classes represent the aspects addressed by the participants⁽¹⁴⁾.

The research was approved in April 2012 by the Research Ethics Committee of the Federal University of Rio de Janeiro, under protocol N. 14,740.

● RESULTS

The profile of the nine nurses who participated in the discussion group shows that seven were female and two, male. In relation to age range, three were aged between 20 and 30 years old, and six between 30 and 40 years old. Regarding the nurses' length of service in the institution, five had worked there for between six months and one year, three had worked there between one and five years, and one had worked there for between five and ten years.

Figure 1 is the product of the Alceste software's analysis, and shows the dendrogram in which it is possible to verify that the corpus is divided into five classes. Each class was named in accordance with its Elementary Context Units (ECU)—the most frequent and significant vocabulary being demonstrated by the highest chi-square (χ^2). The order adopted for description of the classes is in accordance with the sequence presented in Figure 1.

Class 1- The presence of the nurse-leader in the inpatient departments

Class 1 represents 17% of the material classified for analysis. Although the words 'therapy', 'intensive' and 'unit' had the highest χ^2 , the nurses considered that the wards were the places where there were the most problem-situations, as can be ascertained in the ECU below:

[...]In the closed department, you are there, you can see it, there is better control, on the wards we have to work more on the issue of trust, because you are not there the whole time. (ECU 164)

Class 1		Class 2		Class 3		Class 5		Class 4	
Vocabulary	Khi2	Vocabulary	Khi2	Vocabulary	Khi2	Vocabulary	Khi2	Vocabulary	Khi2
Therapy	62	Day	17	Hands	69	Thinking	22	Infection	75
Intensive	62	Department	17	Washing	68	Form	18	Hospital	75
Unit	57	Adapted	11	Gel	36	Team	14	Service	74
Wards	22	Time	10	Alcohol	36	Can	11	Control	50
Space	20	Give	9	Medication	17	May	8	Role	40
Seeing	7	Come	9	Raise awareness	13	Failure	8	Nurse	31
Care	7	Delay	6	Full	12	Continued	8	Old	23
Shortage	6	Quality	6	Patient	11	Necessity	8	Cultures	12
To go down	5	Come	5	Pass	8	Guide	7	Importance	9
Exist	5	Gain	4	Exchange	6	I think	6	To see	4
See	3	Know	4	Agreed	6	To show	6	Attitude	4
Serious	3	Education	4	Better	6	Aspect	6	Important	4
Private health insurance	3	Timetable	4	Problems	6	Attitude	6	Center	3
First storey	3	Storey	3	Physical	4	To leave	4	Institution	3
Third storey	3	Month	3	Structure	4	Want	4	Nursing	3

Figure 1 - Thematic structural diagram of the leadership strategies elaborated. Rio de Janeiro, 2016

The words ‘wards’, ‘space’, ‘care’ and ‘serious’ reveal that there is not always a bed space, or that the patient had been referred for treatment in the Intensive Care Unit (ICU), as it is possible to see in the ECU below:

I have already had times on the third floor [referring to an inpatient department] which had seven patients for whom there were no further therapeutic possibilities, who needed care from the intensive care unit, couldn't go downstairs to ICU because there wasn't a bedspace there. (ECU 36)

Class 2—The nurse-leader’s work process

Class 2 makes up 37% of the discourse analyzed, is the largest class, and presents as its most significant words: ‘day’, ‘department’, ‘adaptation’ and ‘time’, as can be identified in the ECU below:

When you work for a long time in that department, you gain time, you know the clients, you follow their progress every day [...]. (ECU 153)

[...] helps him to find himself. We have already had cases of colleagues, of technicians, who came through me, who came through the health insurance scheme, and went to another department, who have come back to me now and who have adapted [...]. (ECU 155)

The words ‘education’ and ‘timetable’ emphasize the challenge for the professionals to attend the educational activities. As a result, the nurse must adopt a stance integrating continuing education with the professionals’ day-to-day, as the following ECU indicates:

The multiplier is the nurse, the nurse supervisor, he has to be aware of the teaching and be attent to pass it on. I see it like this, if he has this difficulty that I am raising in relation to the timetable to releasing somebody [...]. (ECU 95)

Class 3- Handwashing in the prevention and control of infections

Class 3 is made up of 15% of the discourse analyzed, and within this class, the notion of elements

involved in Handwashing (HW) stands out. The affirmation of the pragmatics of HW is based in words with greater significance, such as 'hands', 'washing', 'gel' and 'alcohol', and raising of awareness, as the ECU below shows:

And the habit of handwashing is not created, what is created is the habit of not washing the hands – and the issue is about raising awareness. I think that it is a serious lack of preparing the personnel – cancer in itself leads to a serious lack of immunity and, in general, it is not just the technicians but the nurses as well whose preparation is not what it used to be.(ECU 16)

Another element indicated by the nurses' discourse was the need to involve patients and their companions in order to develop the habit of handwashing, as may be seen in the following illustrative excerpt from the ECU:

[...] and then the errors occur, infections and the rest are not noticed, and this is because the people don't help the staff. But this is not always well-received, a patient who complains about this too much will be warned about by the nurse technician, 'that one is annoying', and it is passed from one staff member to another, 'watch out, that one demands that you use alcohol gel before you touch him'. (ECU 128)

The words 'problems', 'structure' and 'physical' bring information that the actions triggered by handwashing are influenced by the type of infrastructure of the institution, as can be seen in the ECU below:

These are problems which we have to pass on to management, to collect data, how the problems are occurring, what the solutions might be, the raising of this information would be good for improving the physical structure. (ECU 76)

Class 4 - The nurse from the Hospital Infection Control Committee, the partner of the nurse-leader

Class 4 represented 12% of the material analyzed and is expressed by the words 'infection', 'hospital-', 'work', 'control', 'role' and 'nurse'. These illustrate this class's tendency, which evidences the competences of the nurse of the Hospital Infection Control Committee (CCIH), as may be verified in the ECU below:

We also have to supervise, we also have to watch. We are more aware that we have to work together, us and the nurse from the hospital infection control service, she has to be integrated into our work routine. (ECU 171)

Class 5 – The promotion of knowledge of HCAI for the nursing team

Class 5 is made up of 19% of the discourse analyzed, and in this class, what stands out is the elements involving how the team thinks regarding the prevention and control of HCAI in the patients with cancer. In this class, the most significant words were: 'thinking', 'way', 'team' and 'can', which reinforces the notion that the nurses' discourse moves towards thinking about prevention and control of infections in a collective way. This assertion is exemplified by the following ECU:

You have to think of it like this – it can be done collectively for the entire team, just to emphasize, it is the day-to-day teaching, you saw a flaw, you go and correct it, you provide guidance, just to emphasize, everybody has to speak the same language, there's no point one person speaking it and the other not. (ECU 5)

The presence of the words 'continuous', 'necessity' and 'guidance' reinforces the inference regarding the need to seek strategies such that training may be continuous and ongoing in this institution, as the ECU below indicates:

This issue of publicizing information, really, this need for guidance, is a way for providing this continuous education for the entire team, and must always demonstrate that the patient – here, in this case the oncological patient – hasn't come here in order to die, but rather to have the possibility for life, because

he wants to be cured. (ECU 51)

The words 'guide' and 'I think', when visualized in the ECUs, are linked to the guidance which raises their awareness regarding the issue, as can be seen in the ECU below:

I think that these things are taught through education, by a demand placed upon a person, changing people's attitude is very difficult, it is achieved through the raising of each person's awareness, there are things which we advise, advise and advise – and they don't take it in (ECU 9).

● DISCUSSION

The study participants evidence that the units such as the wards are the departments with the most problem-situations, due to the fact that the patients with cancer require more hours of nursing attendance, regardless of the department in which they are receiving inpatient treatment, and on the other hand, there is a number of professionals which is below that necessary for dealing with these departments' care demands.

The leadership strategies must be implemented in all the hospital's departments, but the priority locales for beginning this enterprise are the wards. This understanding is related to the characteristic of the work of the nurses in the institution, of managing other departments concomitantly, and due to this they are unable to monitor the work of the team as they would like. This is a situation which points to a reflection on the relationship of the staff numbers and skill mix with the demand for nursing care for the patients with cancer. This perspective is compatible with the current conception of the numbers and skill level of the nursing staff, understood by regarding the quantification of the number of staff as a process which depends on knowledge of the workload existing in the inpatient units and of the work, and which is related to the patients' needs for care and to the intended standard of care⁽¹⁵⁾.

In addition to this, the results point to the tendency to promote strategies for strengthening the adaptation of the professionals to the inpatient departments. The issue of adaptation is related to staff turnover in the work and the experience of the professional in oncology⁽¹⁶⁾, being seen concomitantly as facilitating and hindering. This is because it falls to the nurse to know how to deal with matters and learn in order to improve the work process; for example, the experience may confer an excess of trust, just as inexperience may cause failure to observe the incorporation of the measures for prevention and control of HCAI.

The participants indicate that the nurse-leader needs to promote conditions in order to obtain the professionals' participation in the educational proposals. Continuing education is considered to be a strategy which seeks to promote the professionals' learning, and which is indicated for adapting them to the work process. In the logic of continuous education, the educational actions go beyond updating knowledge and seek to teach people to problematize, question, rethink and reinvent the routine of the health services⁽¹⁷⁾.

For the educational strategies regarding prevention and control of HCAI to be efficacious, emphasis is placed on the importance of discussing issues which involve the professionals' participation in the classes, such as time, the delay in taking place, and the best time for attracting them⁽¹⁸⁾. In the care practice, it is necessary to encourage the professionals to participate in these programs and to learn to grasp the content addressed in order to imprint it in their care practice⁽¹⁹⁾.

The group of nurses leads the discourse to a line of argument in which emphasis is placed on the nurse's skill as an integrator of continuous education with the professionals' day-to-day. When some error is observed, in which participants highlight the inobservance of HW, it must be understood in a line of thinking which seeks the raising of the professionals' awareness regarding the risk of patients with cancer developing infections, worsened by their low immunity.

The management of risks for HCAI is a challenge placed by the nurses in order to work with errors. It points to intervention strategies which should be initiated in the act of identifying the failure⁽⁴⁾. The error is the primary, original, priority problem, regarding which there remains much to be considered⁽¹⁰⁾. Projecting this idea onto the behavior of the professionals is to consider that error is inherent to human actions, although the safety guidelines emphasize that the error is materialized in the act of doing⁽¹⁾.

It is necessary for there to be a perspective which is capable of articulating the existence of multi-factors which integrate in order to understand the origin of the error and manage its risk factors, focussing not only on making demands of people, but centered on the construction of knowledge in a continuous educational process, which aims to encourage and guide the professionals in the undertaking of their activities.

Failure to observe handwashing is understood as a problem which requires individual and collective strategies in order to improve its incorporation. The factors which influence low adherence to handwashing are many, and are aspects which involve the professional, such as her knowledge, the value attributed and her habits and beliefs, as well as institutional aspects linked to work overload and to the managerial aspects of the care⁽⁶⁾.

The participants emphasized that, for the professionals to wash their hands whenever it is indicated, it is necessary to create the habit. This perspective is consistent with a study which emphasizes the importance of the habit and of the personal beliefs, which can even exercise a greater influence on the adherence than knowledge of the precautionary measures for, and control of, infection⁽²⁰⁾.

The problems related to infrastructure are configured as challenges for handwashing, and are recurrent in the institution investigated. Washing hands is also a challenge in other healthcare services worldwide, and is an attitude of the professionals which is influenced by the working conditions, by the way in which this is organized, and by the health services' physical infrastructure^(6,19).

Another strategy capable of favoring the incorporation of measures for prevention and control of infections is the active participation of patients and their companions in the care process. It stands out that this strategy needs to be worked on based on the democratization of the work relationships and of the valuing of the health professionals, a situation which requires a broad vision and which is related to the Patient Safety guidelines in a relationship of transversality with the professionals, among whom a proactive stance regarding HW is a requirement for the provision of safe care⁽¹⁾.

The strategy is based on advising the patients and gives them the opportunity to take an interest in their care. However, the nurses emphasized that it is also necessary to work on this aspect with the nursing team, as there remains a culture in which the health professionals are not accustomed to being questioned by the patients during care provision.

The group of nurses has a perspective which places the HCAI as a condition which also results from the way in which the care is provided. As a result, the guidance provided for the professionals is configured as an action capable of influencing them to develop a specified attitude⁽¹⁸⁾. The nurses' discourse leads to the idea that the professional can be active in the actions for prevention and control of HCAI, when her way of thinking leads to a perspective capable of managing the risks, distancing the infection from the aspect of causing fatality in oncology.

It is possible to perceive that the nurses report this aspect as distant from their context, in which the knowledge referent to the prevention and control of HCAI, both in the professional training and in the work, is considered incipient. For this transformation of the reality to be concretized, there is a need for strategies which make use of efforts directed toward professional training, with a focus on knowledge, critical awareness and ethical positioning⁽¹⁰⁾.

The participants refer to the change in the perspective of the nurse of the CCIH, who, in the past, was seen as a professional who was distant from the others who were on the front line of care, but who is now recognised as a partner, as she has a perspective geared toward specific actions for the prevention and control of infections. This data is consistent with a study in which the nurses associated the performance of the CCIH with the figure of the CCIH nurse, whom they consider to be a fundamental agent for the implementation of the actions of the Program for the Control of Hospital Infection⁽²¹⁾.

The results evidence the importance of the interaction between the professionals as a strategy for promoting patient safety, through the integration and optimization of the work processes which, in practice, are presented as inter-related. The relationship between the professionals is a process which needs their integration in the planning and implementation of the actions – as otherwise the measures for the prevention and control of HCAI will not be sustained in practice.

● FINAL CONSIDERATIONS

Elaborating leadership strategies collectively with nurses who work in oncology constitutes a thought-provoking perspective, bearing in mind that the objective of the discussions was to demystify the occurrence of infection in patients with cancer as an expected event, and place it on a level whose risk can be managed. As a result, the leadership strategies are bets, used in accordance with the situation, in order to take account of the unpredictability present in the context and of the need to adopt an educative stance, in order to promote the change of behavior of the nursing professionals.

It is emphasized that the actions fall outside the perspective of work exclusively with the professional for constructing a relationship of transversality when they seek to include the patients and their companions in relation to the right to question the health professionals. In this integrative and participative way of thinking, the challenge posed by the nurses in the management of risks for HCAI is to work with the error in the perspective of articulating the existence of multi-factors which come together for their occurrence.

The strategies were elaborated through the adoption of an integrative and participative way of thinking, in a reflection-action-reflection movement, and considered the dynamicity of the context of work and the dialogicity between the subjects involved in the process of leadership. Hence, the collective construction of the leadership strategies impacted on the reduction of the dichotomy between the doing and the thinking, which may contribute to the convergence of the science of nursing with nursing practice.

Carrying out a study with a CCR perspective was a challenge to attend the premise of coparticipative research, as, in the care practice, the nurses continue with their activities and finding the time to participate in the group with a view to promoting collective strategies was no easy task. This issue culminated as a limitation of the study, whose context influenced the research process through not favouring the nurses' participation. As a result, future studies considering methodological strategies for collective constructions of leadership strategies could contribute to the advancement of the nursing knowledge.

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