

Interruptions and their effects on the dynamics of the nursing work*

Interrupções e seus efeitos sobre a dinâmica de trabalho do enfermeiro

Interrupción y sus efectos sobre la dinámica de trabajo de enfermeira



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How to cite this article:

Sassaki RL, Perroca MG. Interruptions and their effects on the dynamics of the nursing work. Rev Gaúcha Enferm. 2017;38(2):e67284. doi: <http://dx.doi.org/10.1590/1983-1447.2017.02.67284>.

doi: <http://dx.doi.org/10.1590/1983-1447.2017.02.67284>

ABSTRACT

Objectives: To investigate the nurses' perception about interruptions during the workflow and their implications on the professional practice environment.

Methods: A survey was conducted with 133 nurses in a school hospital in the state of São Paulo from October 2015 to March 2016, through the use of a self-administered questionnaire. For data analysis, Chi-square and Fischer tests have been used.

Results: Most of the nurses have reported frequent and recurring interruptions during their work activities. The interruptive processes are more frequent during the documentation process (n=118; 91.5%) and guidance to the patient/family (n=58; 45%). They are caused by the ringing of the phone (n=114; 87%), and by problem solving in the unit (n=107; 81.7%).

Conclusions: According to the nurses' opinion, the interruptive processes have repercussions on the working dynamics, on the caring process and on the patient's safety.

Keywords: Workflow. Time management. Nursing staff. Nursing process.

RESUMO

Objetivos: Investigar a percepção de enfermeiros sobre as interrupções durante a dinâmica de trabalho e suas implicações no ambiente de prática profissional.

Métodos: Pesquisa *survey* conduzida junto a 133 enfermeiros de um hospital de ensino no interior do Estado de São Paulo nos meses de outubro de 2015 a março de 2016, mediante utilização de um questionário autoadministrado. Empregou-se os testes Qui-quadrado e Fisher para análise estatística.

Resultados: A maioria dos enfermeiros relatou interrupções constantes e recorrentes durante atividades de trabalho. Os processos interruptivos são mais frequentes durante o processo de documentação (n=118; 91,5%) e orientação ao paciente/família (n=58; 45%). São ocasionados por toque de telefone (n=114; 87%) e resolução de problemas na unidade (n=107; 81,7%).

Conclusões: No parecer dos enfermeiros, os processos interruptivos repercutem sobre a dinâmica de trabalho, o processo de cuidar e a segurança dos pacientes.

Palavras-chave: Fluxo de trabalho. Gerenciamento do tempo. Recursos humanos de enfermagem. Processos de enfermagem.

RESUMEN

Objetivos: Investigar la percepción de los enfermeros sobre las interrupciones durante el flujo de trabajo y sus consecuencias sobre el ambiente de la práctica profesional.

Métodos: Realizada con 133 enfermeros de un hospital universitario de octubre de 2015 a marzo de 2016 mediante el uso de un cuestionario autoadministrado. Se utilizó la prueba de chi-cuadrado y de Fischer para el análisis estadístico.

Resultados: La mayoría de las enfermeras reportaron interrupciones constantes y recurrentes durante las actividades laborales. Los procesos interrumpibles son más frecuentes durante el proceso de documentación (n=118; 91,5%) y la orientación al paciente/familia (n = 58; 45%). Son causadas por el tono de llamada (n=114; 87%), resolución de problemas en la unidad (n=107; 81,7%).

Conclusiones: En la opinión de los enfermeros, los procesos que se interrumpen repercuten en el flujo de trabajo, el proceso de atención y la seguridad del paciente.

Palabras clave: Flujo de trabajo. Administración del tiempo. Personal de enfermería. Procesos de enfermería.

* Study contemplated with the Scientific Initiation Grant of the Faculdade de Medicina de São José do Rio Preto (FAMERP), 2015-2016.

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■ INTRODUCTION

Interruptions are unexpected intrusions that disrupt the continuity of care to be provided⁽¹⁾ and often occur during the nursing work in hospital institutions⁽²⁾. They differ from distractions, situations in which professionals perceive interferences in their activities, but they do not attend to them, and there are no breaks⁽³⁾.

Interrupting processes can result from actions of other people or from environmental irregularities⁽⁴⁾. The occurrence of interruptions in the work dynamics is a source of concern for its potential to have an unfavorable impact on the quality of care, on the patient's safety and on the work of employees.

It is reported that greater time of nursing care per patient results in better results in their care⁽⁵⁾. Interfering with the team's work increases the time it takes to perform their activities⁽¹⁾, which can affect memory processes⁽⁶⁾. Forgetfulness in doing any type of task can result in negligence, increased incidence of human errors and costs, besides affecting the professional effectiveness^(2,7). Interruption is also considered to be one of the causes of errors during the drug administration activity that compromises patient's safety⁽⁴⁾.

The nursing team hardly performs activities without any interference⁽⁸⁻⁹⁾; which demands dedication, focus and mastery from the professionals⁽⁹⁾. Frequent breaks in the work dynamics are stressors that impede attention, increase frustration and stress, and can lead to clinical negligence⁽¹⁰⁾. Thus, interruptions negatively influence the ability to concentrate⁽¹¹⁾ and it is imperative that, when performing activities that require attention, professionals have tranquility and concentration in order to avoid distractions and errors^(4,8).

Although the nursing work environment is considered to be interruptive, the nature of these disruptions and their effects on the work dynamics, efficiency and productivity has not been properly clarified⁽²⁾. The identification of the actions that break the continuity of the activities may allow improvement in the quality of the services offered and contribute to the safety of both patients and professionals⁽⁹⁾.

This study has been conducted in order to investigate the nurses' perceptions about disruptions during the work dynamics and their implications on the professional practice environment. It aims at answering the following questions: *"In what situations, in what form and at what frequency do interruptions occur during the care process? How do nurses perceive their implications for the work dynamics?"*

■ METHOD

The *survey* research method has been carried out in this scientific initiation study with 133 nurses, perfecting and residing in inpatient and specialized units, diagnostic and therapeutic support services and administrative services of an extra capacity school hospital located in the state of São Paulo. This method makes use of direct inquisition to a pre-established group through a questionnaire⁽¹²⁾.

The field of study hospital is a reference medical center for the care of 102 cities that belong to the Regional Health Division of Rio Preto (RHD 15). It has 708 beds and makes an average of 89,025 monthly appointments. The nursing team is composed of 242 nurses, 565 nursing technicians and 481 nursing assistants.

The instrument for conducting the survey was a self-administered questionnaire, which has been built and tested previously in order to meet the objectives of this study. Initially approaching a brief explanation to the participants about its purpose and form of fulfillment, it was composed of three parts. The first contained information regarding the profile and qualification of the professionals. Then, semi structured questions were asked, addressing types, sources (patients, relatives, nursing staff, medical staff, other professionals and others), characteristics of the interruptions (frequency, recurrence and causes) as well as their perception by the nurses, involving psychological and professional income (time demanded for the return to the initial activity and degree of loss). In the last part there was a 5-point Likert scale (from totally agreeing to totally disagreeing) containing 16 statements. They assessed the implications for the care outcome (degree to which it affects patient/family care, when it occurs), and patient and staff safety (degree to which it affects, most harmful sources, occurrence of errors during the medication administration, interference with concentration, and stress at work). It was also left space for possible comments from the participants.

From the 221 nurses working in the different units and services contacted during the study period (excluding vacations and leave), four of them have declined the invitation, obtaining a questionnaire response rate of 61.3%.

The data collection period occurred from October 2015 to March 2016. The analysis has been processed with the StatsDirect Statistical Software, version 1.9.15 (05/05/2002). The descriptive data has been presented as frequencies, percentages, averages and standard deviation. The Likert scale was considered as an ordinal level of measurement and medians and quartiles (Q1 and Q3) have been calculated. The Chi-square test has been performed to evaluate the association between the frequency of the interruptions x the work

shifts and frequency of the outages x units and services. In small samples the Chi-square value error is high, and, therefore, the test is not recommended. Due to that, Fisher's test has been used. The level of significance was set at 0.05.

The study has been approved by the Research Ethics Committee of the field of study institution's (Opinion No. 980.660 of 10/3/2015). The nurses have been individually invited by the researcher and briefed regarding the purpose of the research and the voluntary nature of their participation.

■ RESULTS

The majority of the participants were female (n=114, 85.7%), with an average age of 34.9 (Sd=8.2) years old, ranging from 22 to 58 and average time of performance of 9, 1 (Sd=1.1) years – variation from 3 months to 32 years. Regarding their qualification, 25 (18.9%) were graduated, 10 (7.6%) had an improvement course, 84 (63.6%) had a specialization, 11 (8.3%) had a master's degree and two (1.5 %) had a PhD.

As shown in Table 1, 55 (42%) of the nurses have reported being interrupted more than 13 times during their work activities, and also that this discontinuity is more fre-

Table 1 – Frequency and moment of the occurrence of nurses' interruptions during their work activities. São José do Rio Preto, 2016 (N=133)

Interruptions	N	%
Frequency*		
1-3	6	4.6
4-6	19	14.5
7-10	33	25.2
11-13	18	13.7
More than 13	55	42.0
When it occurs**		
Documentation	118	91.5
Body care	10	7.8
Skin and mucous membrane care	11	8.5
Monitoring and controls	41	31.8
Medication administration	14	10.9
Patient/family guidance	58	45.0
Emotional support to patient/family	31	24.0
Nutrition and Hydration	8	6.2

Source: Research data, 2016.

*Lost data; **Participants could choose more than one answer.

Table 2 – Causes and consequences of nurses' interruptions during their work activities. São José do Rio Preto, 2016 (N=133)

Interruptions	N	%
Causes*		
Unforeseen and emergency needs	91	69.5
Patients with complications	59	45.0
Supply of materials/equipment	56	42.7
Companions asking for information	85	64.9
Parallel conversations	32	24.4
Problem solving at the unit	107	81.7
Telephone ringtone	114	87.0
Alarms	43	32.8
Calls for cooperation with co-workers	78	59.5
Calls for cooperation other professionals	87	66.4
Time to return to the initial activity (min)*		
1-2	20	15.3
3-4	30	22.9
5-6	34	26.0
7-8	10	7.6
9-10	13	9.9
More than 10	24	18.3
Does it happen again?*		
No	11	8.3
Yes, after (min)*	121	91.7
1-3	8	6.7
4-7	28	23.5
8-11	24	20.2
12-15	19	16.0
More than 15	40	33.6
Impairment in professional performance***		
M (Sd)	6.3 (2.3)	

Source: Research data, 2016.

*Participants checked more than one response; **Lost data; ***Considering scale from 1 to 10, where one is the lowest level and 10 is the highest.

quent during the documentation process (n=118, 91.5%), followed by patient/family guidance (n=58; 45%).

The interruption processes have been caused in the nurses' perception by phone ringing (n=114, 87%), problem solving in the unit (n=107, 81.7%), unforeseen and emergency needs (n=91; 69.5%), calls for cooperation with other professionals (n=87, 66.4%) and companions requesting information (n=85, 64.9%).

For 34 (26%) of the professionals, it took five to six minutes for them to return to their previous activities. An

interruption occurred again (n=121; 91.7%) after 4 to 11 minutes (n=52; 43.7%) and they reported an average loss in their professional performance of 6.3 (Sd = 2.3) considering a scale from 1 to 10, as evidenced in Table 2.

Regarding the activities developed at the time of the interruptions (Table 3), the documentation process has been identified in the different shifts; patient/family guidance at all shifts except at the night time; and monitoring and controls at night (n=12; 54.5%). The main causes of interference were: telephone ringing on all shifts (vari-

Table 3 – Frequency and causes of nurses' interruptions during their work-shift activities. São José do Rio Preto, 2016 (N=133)

Interruptions	Shifts*			
	M	A	E	FT
Frequency*				
1-3	1 (3.7)	1 (3.2)	1 (4.5)	1 (3.1)
4-6	4 (14.8)	5 (16.1)	1 (4.5)	6 (18.8)
7-10	8 (29.6)	8 (25.8)	3 (13.6)	11 (34.4)
11-13	6 (22.2)	4 (12.9)	4 (18.2)	4 (12.5)
More than 13	8 (29.6)	12 (38.7)	12 (54.5)	10 (31.3)
When it occurs*				
Documentation	25 (92.6)	28 (90.3)	20 (90.9)	28 (87.5)
Body care	5 (18.5)	1 (3.2)	2 (9.1)	1 (3.1)
Skin and mucous membrane care	5 (18.5)	0 (0.0)	3 (13.6)	2 (6.3)
Monitoring and controls	8 (29.6)	11 (35.5)	12 (54.5)	3 (9.4)
Medication administration	7 (25.9)	2 (6.5)	3 (13.6)	0 (0.0)
Patient/family guidance	15 (55.6)	13 (41.9)	9 (40.9)	9 (28.1)
Emotional support to patient/family	6 (22.2)	6 (19.4)	6 (27.3)	5 (15.6)
Nutrition and Hydration	3 (11.1)	1 (3.2)	0 (0.0)	3 (9.4)
Causes*				
Unforeseen and emergency needs	18 (66.7)	24 (77.4)	16 (72.7)	17 (53.1)
Patients with complications	14 (51.9)	16 (51.6)	15 (68.2)	3 (9.4)
Supply of materials/equipment	12 (44.4)	16 (51.6)	11 (50.0)	7 (21.9)
Companions asking for information	19 (70.4)	23 (74.2)	15 (68.2)	11 (34.4)
Parallel conversations	6 (22.2)	8 (25.8)	5 (22.7)	6 (18.8)
Problem solving at the unit	24 (88.9)	22 (71.0)	21 (95.5)	23 (71.9)
Telephone ringtone	22 (81.5)	28 (90.3)	18 (81.8)	28 (87.5)
Alarms	12 (44.4)	11 (35.5)	10 (45.5)	2 (6.3)
Calls for cooperation with co-workers	18 (66.7)	20 (64.5)	18 (81.8)	9 (28.1)
Calls for cooperation other professionals	19 (70.4)	18 (58.1)	12 (54.5)	21 (65.6)

Source: Research data, 2016.
M: morning; A: afternoon; E: evening; FT: full time.

Table 4 – Frequency and causes of nurses' interruptions during their work activities by units and services. São José do Rio Preto, 2016 (N=133)

Interruptions	Units and Services*			
	IU	SU	DTSS	ADM
	N(%)	N(%)	N(%)	N(%)
Frequency*				
1-3	1 (3.2)	3 (4.1)	2 (22.2)	0 (0.0)
4-6	3 (9.7)	7 (9.5)	4 (44.4)	5 (26.3)
7-10	3 (9.7)	21 (28.4)	1 (11.1)	8 (42.1)
11-13	7 (22.6)	8 (10.8)	1 (11.1)	2 (10.5)
More than 13	16 (51.6)	34 (45.9)	1 (11.1)	4 (21.1)
When it occurs				
Documentation	29 (93.5)	69 (93.2)	4 (44.4)	16 (84.2)
Body care	1 (3.2)	8 (10.8)	1 (11.1)	0 (0.0)
Skin and mucous membrane care	5 (16.1)	6 (8.1)	0 (0.0)	0 (0.0)
Monitoring and controls	10 (32.3)	28 (37.8)	3 (33.3)	0 (0.0)
Medication administration	4 (12.9)	10 (13.5)	0 (0.0)	0 (0.0)
Patient/family guidance	20 (64.5)	30 (40.5)	7 (77.8)	1 (5.3)
Emotional support to patient/family	11 (35.5)	16 (21.6)	4 (44.4)	0 (0.0)
Nutrition and Hydration	1 (3.2)	5 (6.8)	2 (22.2)	0 (0.0)
Causes				
Unforeseen and emergency needs	22 (71.0)	56 (75.7)	3 (33.3)	9 (47.4)
Patients with complications	21 (67.7)	37 (50.0)	1 (11.1)	0 (0.0)
Supply of materials/equipment	14 (45.2)	40 (54.1)	1 (11.1)	1 (5.3)
Companions asking for information	27 (87.1)	51 (68.9)	5 (55.6)	2 (10.5)
Parallel conversations	7 (22.6)	21 (28.4)	1 (11.1)	3 (15.8)
Problem solving at the unit	28 (90.3)	63 (85.1)	6 (66.7)	10 (52.6)
Telephone ringtone	28 (90.3)	65 (87.8)	6 (66.7)	15 (78.9)
Alarms	11 (35.5)	31 (41.9)	0 (0.0)	1 (5.3)
Calls for cooperation with co-workers	24 (77.4)	49 (66.2)	3 (33.3)	2 (10.5)
Calls for cooperation other professionals	17 (54.8)	52 (70.3)	6 (66.7)	12 (63.2)

Source: Research data, 2016.

IU: Inpatient units; SU: Specialized units; DTSS: Diagnostic and Therapeutic Support Services; ADM: Administrative Services.

ation n=18; 81,8% to n=28; 87.5%); problem solving at the unit – in the morning shifts (n=24; 88,9%), evenings (n=21; 95.5%) and all day (n=23; 71.9%); cooperation with co-workers – at the evening shift (n=18; 81.8%); and unforeseen and emergency needs – in the afternoon shift (n=27; 77.4%), among others. No significant differences have been found between the frequency of the interruptions and the different shifts by the Chi-square and Fisher tests (p variation=0,24 to p=0,64).

When considering the interruptions during work activities by units and services (Table 4), it is observed that they occur more frequently during the documentation process in the Inpatient Units – IUs (n=29; 93.5%), Specialized Units – SU (n=69, 93.2%) and in Administrative Services – ADM (n=16; 84.2%); (n=20, 64.5%), SU (n=30, 40.5%) and in the Diagnostic and Therapeutic Support Services – DTSS (n=7, 77.8%). The professionals mention the telephone ring (variation 66.7-90.3%) and the resolution of problems in the

Table 5 – Nurses’ opinion about the interruptions and their impact on the work dynamics of the unit and of the caring process. São José do Rio Preto, 2016 (N=133)

Statements	Md	Q1-Q3
They affect very little patient /family care.	3	2-4
They are more detrimental to patient’s safety when caused by:		
▪ Members of the nursing team	3	2-4
▪ Other health professionals	3	2-4
▪ Companion/family	3	2-4
▪ Alarms and phone calls	3	2-4
During drug administration, they often lead to errors.	4	4-4
They always make me forget what I was doing.	3	2-4
They have a direct influence on patient’s safety.	4	4-5
They greatly affect patient/family care.	4	3-4
They interfere in the excellence of care.	4	4-4
During drug administration, they rarely lead to errors.	2	2-4
They do not make me forget what I was doing previously	4	2-4
They contribute to stress at work.	4	4-5

Source: Research data, 2016.

unit (variation 52.6 – 90.3%) as the main causes of work breakdown in all the units investigated.

It has been found significant differences between the frequency of interruptions between IU and DTSS (p=0.03), IU and Administrative Services (p=0.03), also between SU and DTSS (p=0.03). = 0.05) and SU and Administrative Services (p=0.05).

In the perception of the nurses investigated (Table 5), the interruptive processes interfere with the excellence of care – Median (Md) 4 (4-4), and they have a direct influence on the patient’s safety – Md 4 (4-5) during medication administration, which often leads to errors – Md 4 (4-4) and contribute to stress at work Md 4 (4-5).

■ DISCUSSION

This study has investigated the perception of nurses about the occurrence of interruptive processes during work dynamics and their implications on the professional practice environment. Most of the professionals have reported being the interruptions constant and recurrent during their work activities. Also, they occur more frequently during the documentation process (n=118; 91.5%) and during patient/family guidance (n=58; 45%).

International findings indicate that, on average, nurses are disrupted between 0.3 to 13.9 times during one hour of work⁽¹³⁾. They also confirm documentation as one of the

main activities carried out at the time of interruptions^(2,7) alongside hygiene care, administration and preparation of medicines and communication.

When interruptions by external stimuli occur, there is a concentration breakdown, raising the mental workload and leading to reduced performance⁽¹⁴⁾. The instability related to the interruptions and associated with performing tasks can induce errors^(7,9), such as failures to fill in documents that are relevant to the patient and to the team. In addition, they may result in misunderstanding of the nurse’s directions to the patient and his/her family. Direct participation in care by both the patient and his/her family⁽¹⁵⁾ makes it important in order to guide the care provided by the professional.

Regarding the nature of the interruptions, the most mentioned sources were telephone ringing (n=114; 87%), problem solving in the unit (n=107, 81.7%) and unforeseen and emergency needs (n=91; 69.5%). The telephone ringing has been confirmed as a major cause⁽¹⁴⁾ along with alarms, family members, multiprofessional staff, nursing colleagues and noises⁽²⁾.

According to the reports, the patients (n=16, 51.6%) have caused fewer interruptions than the nursing team (n=20; 64.5%), a situation confirmed in another study⁽¹⁴⁾. This duality of professionals between the requirement to keep their concentration on the quality of the activities performed and to be collaborative with their co-workers can become a problem that demands learning and skills⁽¹⁶⁻¹⁷⁾.

It has been sought to investigate whether there was a difference in the frequency of interruptive processes between work shifts. However, there were no significant differences (variation of $p=0.24$ to $p=0.64$). It has been observed, though, that there were different causes among the shifts: in the morning, due to the demand for cooperation with other professionals ($n=19$; 70.4%), probably related to visits by the multidisciplinary team during this period. In the afternoon, due to unforeseen and emergency needs ($n=24$; 77.4) due to admissions, discharges and postoperative complications, among others; in the evening period due to the need to solve problems in the unit ($n=21$, 95.5%). No researches have been found that reported characteristics of interruptions related to the shift.

For nurses' units, there was a significant difference in the frequency of interruptions between Inpatient Units and Diagnostic and Therapeutic Support Services ($p=0.03$), Inpatient Units and Administrative Services ($p=0.03$), between Specialized Units and DTSS ($p=0.05$), and Specialized Units and Administrative Services ($p=0.05$). This aspect seems to be consequence of the characteristics and peculiarities in the routine, team and work dynamics.

Observational surveys conducted in specialized units such as the ICU⁽¹⁴⁾ and pediatric units⁽¹¹⁾ have showed a greater number of interruptions in the ICU – 20 interruptions/hour⁽¹⁴⁾ – in relation to the pediatric unit – on average 4.7L interruptions/hour⁽¹¹⁾. It is important to note that, unlike the previously mentioned investigations, the findings of the present study refer to the nurses' perceptions about interruptions in their work dynamics.

The occurrence of interruptions is constant in the health environment^(1,18). Although they are sometimes necessary, in order to transmit information that influences the delivery of care⁽¹⁴⁾, they should be restricted to unavoidable situations⁽¹⁸⁾. Interruptions caused by unforeseen needs such as patients with complications, urgent problem solving in the unit, alarms and relevant cooperation with co-workers and other professionals can be categorized as essential in the care process. However, the interruptions that are caused by the supply of materials, companions requesting information, parallel conversations and telephone ringing are classified as avoidable. The occurrence of interruptions is confirmed as detrimental to the work dynamics, regardless of the categorization in which it is inserted.

The high frequency of interruptions can affect the care process and affect patient's safety and the quality of care^(4,5,9,11). Safety has been chosen as one of the main factors for quality patient care⁽⁸⁾. Several studies have shown how interruptions can influence safety mainly in the preparation and administration of medications^(4,7,9,19). The nurses par-

ticipating in this study have recognized that interruptive processes have a direct influence on patient's safety – Md 4 (4-5), and can often lead to errors occurring during drug administration – Md 4 (4-4), interfering in care excellence – Md 4 (4-4) and contributing to work stress – Md 4 (4-5).

In view of all the recurrent problems of interruptions, researches have shown possible solutions to reduce their frequency and consequences⁽⁴⁾, particularly during the medication administration process. One of them is the "No Interruption Zone" (NIZ), in which employees wear colored vests to show that the person cannot be interrupted. This strategy reduced medication errors associated with interruptions by 47%⁽⁴⁾.

In this way, preventing and controlling disruptions is a way to ensure better assistance and better patient care^(13-14,19). Interventions at this event would foster better work dynamics and significantly increase the quality, safety and efficiency of care and productivity⁽¹¹⁾.

A deeper look at the findings of this research refers to how professionals are dealing with interruptions. Although the nursing work is considered to be interruptive, consideration should be given to what frequency it would be acceptable and would cause less harm to the patient/family and to the professional staff. The topic has recently emerged on the international scenario and still requires further studies⁽¹³⁾.

■ CONCLUSION

It has been proposed in this study the mapping of interruptive processes contributing to examine its implications on the context of professional practice. In the nurses' opinion, they are constant, recurrent and occur more frequently during the documentation process ($n=118$, 91.5%) and during patient/family guidance ($n=58$; 45%), affecting the care dynamics, and patient's safety. They are caused mainly by telephone ringing ($n=114$; 87%) and problem solving in the unit ($n=107$; 81.7%).

However, reflecting the perception of nurses from a single school hospital, the findings may differ from other care environments. The response rate obtained from 61.3%, although constituting a significant value, also indicates a low adherence rate among professionals. Another limiting factor was that the different degrees of impairment of each type of interruption have not been evaluated.

The implications for clinical practice of making it less disruptive are to be considered. Mapping studies enable the identification of sources and causes of interruptions in the work environment and the elaboration of strategies in order to minimize their occurrence. Prioritiza-

tion of tasks, reduction of self-interruptions, adoption of error-checking systems, creation of non-interruption zones during medication administration, training of the multiprofessional team and encouragement of behavioral change of patients and companions are possible strategies to be implemented.

Since new collaborators are more vulnerable to interruptions, it is fundamental to approach this topic during the graduation nursing courses by providing professional training directed to ways of dealing with interruptive processes. It is also worth mentioning the incipient production of knowledge regarding the interruptions and their implications in the national practice scenario. Thus, this initial mapping may encourage future investigations with new developments in order to better understand and deepen this phenomenon.

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Received: 08.26.2016

Approved: 05.08.2017