Cogitare Enferm. 2016 Oct/dec; 21(4): 01-08

Original article

NURSES' KNOWLEDGE ABOUT ADVERSE EVENTS AND THE CHALLENGES OF REPORTING THESE EVENTS

Jamilly Santos Araujo[1], Hertaline Menezes Nascimento[2], Anny Giselly Milhome da Costa Farre[3], Rosângela de Oliveira Brito[1], José Paulo dos Anjos Santos[1], Talmay Tavares Santos Vasconcelos[4]

ABSTRACT: A descriptive cross-sectional study with quantitative and qualitative approach that aimed to investigate the nurses' knowledge and perception of adverse effects, reporting of such events and factors that may limit reporting. Data collection was performed between November and December 2015 in a public hospital of the Center-South region of the state of Sergipe. The sample was composed of 28 nurses who completed a semi-structured form analyzed through descriptive statistics and content analysis. Among the participants, 16 (57%) were 16 (57%) showed little knowledge on adverse events, and, 27 (96%) respondents perceived the importance of reporting. However, these events are underreported due to fear of punishment, among other factors. It is concluded that educational actions and measures aimed to clarify these health professionals on adverse events and encourage reporting are needed.
DESCRIPTORS: Patient safety; Nursing; Incidents; Reporting; Hospital.

CONHECIMENTO DOS ENFERMEIROS SOBRE EVENTO ADVERSO E OS DESAFIOS PARA A SUA NOTIFICAÇÃO

RESUMO: Estudo descritivo transversal com abordagem quanti-qualitativa, que objetivou investigar o conhecimento e percepção dos enfermeiros sobre os eventos adversos, sua notificação e os fatores que limitam a sua realização. A coleta de dados foi realizada entre novembro e dezembro de 2015 em um hospital público da região centro sul de Sergipe. A amostra foi composta por 28 enfermeiros, que responderam a um formulário semiestruturado analisado com estatística descritiva e análise de conteúdo. Dentre os participantes, 16 (57%) demonstraram conhecimento deficiente sobre evento adverso, entretanto 27 (96%) dos envolvidos no estudo tem percepção da importância da notificação, porém existe subnotificação devido a fatores como o medo de punições. Conclui-se que devem ser realizadas ações educativas a fim de esclarecer o que são eventos adversos e medidas que incentivem a notificação.
DESCRITORES: Segurança do paciente; Enfermagem; Incidentes; Notificação; Hospital.

CONOCIMIENTO DE LOS ENFERMEROS ACERCA DEL EVENTO ADVERSO Y LOS DESAFÍOS PARA SUA NOTIFICACIÓN

RESUMEN: Estudio descriptivo transversal de abordaje cuantitiva cualitativa, cuya finalidad fue investigar el conocimiento y percepción de los enfermeros acerca de eventos adversos, su notificación y los factores que limitan su realizacióno. Los datos fueron obtenidos entre noviembre y diciembre de 2015 en un hospital público de la región centro sur de Sergipe. La muestra fue compuesta por 28 enfermeros, que contestaron a un formulario semiestructurado analizado con estadística descriptiva y análisis de contenido. Entre los participantes, 16 (57%) demostraron conocimiento deficiente acerca de evento adverso, sin embargo 27 (96%) de las personas abarcadas en el estudio tienen percepción de la importancia de la notificación, pero hay subnotificación a causa de factores como el miedo de puniciones. Se concluye que se deben realizar acciones educativas para aclarar lo que son eventos adversos y medidas que incentiven la notificación.
DESCRIPTORES: Seguridad del paciente; Enfermería; Incidentes; Notificación; Hospital.

[1]Nurse. São Domingos, SE, Brazil.
[2]Nurse. PhD student in Nursing. Professor of Nursing at Universidade Federal de Sergipe. Lagarto, SE, Brazil.
[3]Nurse. PhD in Nursing. Professor of Nursing at Universidade Federal de Sergipe. Lagarto, SE, Brazil.
[4]Nurse. Itabaiana, SE, Brazil.
[5]José Paulo dos Anjos Santos. Aracaju, SE, Brazil.
[6]Physician. Resident in General Surgery at Hospital Universitário de Sergipe. Aracaju, SE, Brazil.

Corresponding author:
Jamily Santos Araujo
Universidade Federal de Sergipe
R. José Mecenas Filho - 49525-000 - Lagarto, SE, Brasil
E-mail: jamilly142009@gmail.com

Received: 24/02/2016
Finalized: 07/10/2016

INTRODUCTION

Health institutions are primarily devoted to provide their clients with goods and services with minimal or no risks and failures that might affect their safety [1]. However, health professionals as any human beings can make mistakes, which may lead to adverse events [2].

Adverse event (AE), in the context of patient safety, is defined as an unintentional event that results in unnecessary damage to the patient, caused by an error. Given the several types of complications that adverse events may cause to patients, the use of a system for reporting adverse events by nursing professionals is recommended.[3].

Nurses should be aware that AE reporting is essential to improve care quality. Thanks to this system, health professionals may learn from their mistakes, detect and monitor possible errors and seek alternatives to solve healthcare-related issues. The system of adverse event reporting is a set of actions aimed to identify, analyze and predict risk situations for AE in order to improve patient safety [4].

Despite the benefits promoted by the system for reporting adverse events, most nurses do not use it because they fear punishment and being considered unprepared to perform their professional tasks, or else careless and irresponsible [5].

However, it is clear that the punitive approach to adverse report reporting should be replaced by a transparent, nonpunitive approach based on permanent learning of the nursing staff. According to this new approach adverse event reporting and knowledge about the cause of these events are perceived as elements that contribute to improve care [6].

The interest in this theme arose from the possible relationship between the limited knowledge of nurses about adverse events, the importance of adverse event reporting and lack of adherence of some professionals to the adverse event reporting system. Therefore, the present study aimed to investigate the nurses' knowledge and perception of adverse events, their reporting and factors that limit adverse event reporting.

METHOD

Descriptive cross-sectional study with quantitative and qualitative approach conducted at a Regional Hospital, which is considered the main reference in urgent and emergency care in the Center-South region of the state of Sergipe.

A total of 37 nurses worked in the hospital, but the final sample of the study consisted of 28 (75%) professionals, since four were on vacation, three refused to participate in the study and two were not in the institution during data collection. The inclusion criterion was nurses working in the hospital during the three shifts. Those professionals who were not currently performing their regular activities during data collection were excluded.

Data was collected between November and December 2015 through semi-structured forms composed of five questions: 1º) Do you know what an adverse event is? Define it; 2º) In your opinion, what causes these events? 3º) Would you report an adverse event? Justify your answer. 4º) What explains non reporting of adverse events by nurses? 5º) Do you think it is important to report adverse events? Why?

The collected data was stored in an Excel spreadsheet and descriptive statistics, determination of percentages and content analysis were performed. The data were then coded, tabulated and presented in tables and charts with their percentage distributions.

The present study was approved by the Research Ethics Committee of the institution involved in the research project under no 1.313.955.

RESULTS

For better understanding and viewing, the results were grouped in three axes: characterization of sample knowledge on adverse events and importance of adverse event reporting and limiting factors.

Characterization of the sample

The study sample consisted in 28 (100%) nurses: 19 (68%) women and nine (32%) men. Regarding age range, most participants were young adults with ages ranging from 25 to 35 years. Regarding the work shift, 17 (61%) worked in the day shift and 11 (39%) in the night shift. Regarding their units, 12 (43%) nurses performed their duties in emergency care, six (21%) in internal medicine, (11%) three in Intensive Care Units (ICU), two (7%) in the Paediatric unit, two (7%) in the management, one (3%) in Epidemiological surveillance, one (3%) at the Internal Regulation Center, and one (3%) in the Surgical clinic. Regarding the amount of time working in the hospital, 12 (43%) have been working for >1 to 5 years, 14 (50%) have been working for > 6 to 10 and two (7%) for >11 to 15 years.

Table 1 – Data from participants regarding gender, age range, work shift, unit, amount of time working in the hospital and education/training (years). Lagarto, SE, Brazil, 2015

Data from the participants	Absolute frequency (n)	Relative frequency (%)
Gender		
Female	19	68
Male	9	32
Age range		
>25 to 35	17	38
>35 to 45	8	35
>45 to 50	3	27
Work shift		
Day [morning and afternoon]	17	61
Night	11	39
Unit		
Emergency care	12	43
Internal medicine	6	21
ICU	3	11
Paediatrics	2	7
Management	2	7
Epidemiological surveillance	1	4
Internal Regulation Center	1	4
Surgical clinic	1	3
Amount of time (years) working in the hospital		
Less than 1 year	-	-
1 to 5 years	12	43
6 to 10 years	14	50
11 to 15 years	2	7
Number of years of education/training		
1 to 5 years	9	32
5 to 10 years	15	53
10 to 15 years	2	7
15 to 20 years	2	7
Total number of participants	28	100

Knowledge on adverse events

Nurses' knowledge about adverse events was the first item of the semi-structured interview. This item obtained the highest number of positive responses, as follows: 18 (64%) participants answered yes and 10 (36%) answered no. However, regarding the concept of adverse event, 16 (57%) of the participants provided unsatisfactory answers and 12 (43%) provided satisfactory answers.

Satisfactory examples:

It is any event that could result in harm to the patient, posing a risk to patient's health. (E. 01)

It is a damage caused to the patient that can lead to some sort of temporary or permanent disability. (E. 14)

Unsatisfactory examples:

It is an unexpected reaction caused by a medication. (E. 05)

It is an unexpected situation at a given moment. (E. 08)

Regarding the causes of adverse events (Chart 1), most participants reported lack of attention (n=15;31%) and work overload (n=12;25%). Deficit of knowledge (n=11;22%), neglect (n=six;12%) and unpreparedness (n=five;10%) were also mentioned as causes that led to the onset of adverse events.

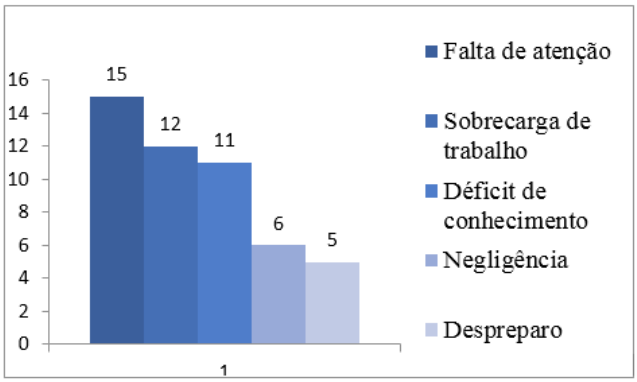

Chart 1 – Causes of AE. Lagarto, SE, Brazil, 2015

Importance of adverse event reporting and its limiting factors

Regarding adverse event reporting, most respondents are aware of its benefits, as follows: 27 (96%) said they would report the occurrence of any AE and only one (4%) would not report adverse events.

Most respondents have an adequate perception of the process of adverse event reporting (Chart 2), which provides information to prevent recurrence of these events (n=17; 61%), contributes to the process of investigation of the causes of AE (n= five; 18%), improves care quality (n=five; 18%).

Some examples follow:

Because reporting brings many benefits; it is possible to investigate the causes of these events and improve care. (E. 16)

Because it contributes to prevent recurrence of AE and detect failures. (E. 03)

The only participant that said he/she would not report adverse events provided the following justification:

Because I don't know whether there is a protocol for reporting adverse events in the hospital. (E. 07)

Regarding the limiting factors of AE reporting (Chart 3), 17 (37%) of the participants mentioned lack of knowledge, eight (17%) mentioned neglect, four (9%) mentioned lack of surveillance, four (9%) mentioned lack of information and 13 (28%) said they feared punishment, retaliation, being held accountable for errors and the negative impact on their careers.

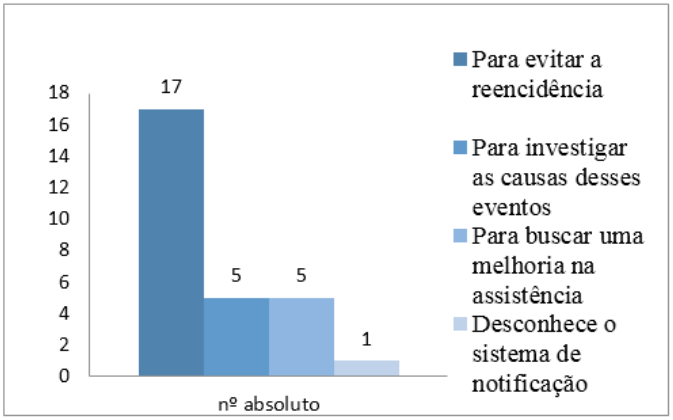

Chart 2 – Why is it necessary to report an AE? Lagarto, SE, Brazil, 2015

The following line indicates one of the limiting factors of adverse event reporting:

Lack or insufficient knowledge on the importance of adverse event reporting, fear of exposure, not urged by the management to report these events [...].(E. 11)

Another line indicates fear of punishment as a cause of underreporting:

Fear of punishment, retaliations, and lawsuits [...] not everyone understands that as humans we are imperfect and susceptible to make mistakes.(E.09)

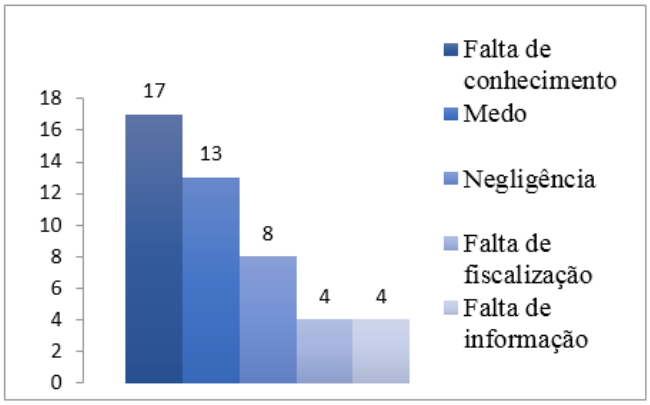

Chart 3 – Limiting factors of AE reporting. Lagarto, SE, Brazil, 2015

Importance of AE reporting (Chart 4): all the respondents had a clear and adequate perception of the importance or adverse event reporting. For eight (25%) respondents, it contributes to improve care quality; for seven (22%) it prevents AE recurrence; for six (19%) it allows investigating the possible causes of occurrence of AE; for five (16%) it reduces the number of adverse AE; for four (12%) it improves patient safety and for two (6%) it provides guidance on new conducts to be adopted to prevent the occurrence of AE.

Some examples follow:

Because it is possible to view the main difficulties faced by the health team accountable for the errors and minimize damage to other patients. (E. 11)

Because it is possible to reduce the probability of the occurrence of these events and improve care (E. 02)

It contributes to prevent recurrence of these events, improves care and increases patient survival. (E. 07)

AE reporting triggers an investigation of failures that may lead to measures that improve patient safety and improve care. (E. 22)

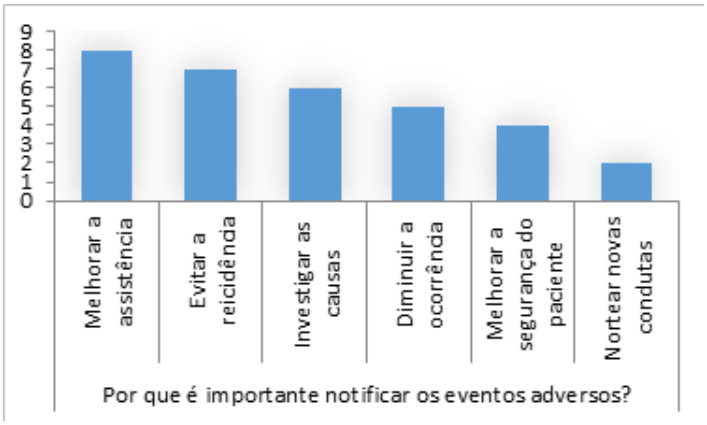

Chart 4 – Why is it important to report AE. Lagarto, SE, Brazil, 2015

DISCUSSION

Regarding the gender of the respondents, the sample was mostly composed of women (68%) and (32%) of men (Table 1), which is explained by gender inequality, since nursing is still seen as a predominantly feminine profession[7].

Regarding knowledge about adverse events, most respondents, 16 (57%) defined it in an unsatisfactory way and 12 (43%) provided satisfactory definitions. This reveals that most health professionals have not adequate information on errors, and that some errors may go unnoticed [8].

Therefore, the results obtained indicate that insufficient knowledge about adverse events contributes to an unfavorable perception of the patient safety culture [9]. These results point to the need for actions targeted to continuing education in health, which is defined by Brazil's National Health Surveillance Agency (ANVISA) as a "continuing process of acquisition of information by health professionals, either formally or informally, in the institution or outside "[10:79].

Work overload associated to understaffing was one of the main causes of occurrence of AE mentioned by the respondents, demonstrating the numbers of nursing personnel impacts the quality of care provided to the patients. This fact has led to changes in public policies of developed countries that culminated in laws that established minimum nurse-to-patient ratios [11].

Adverse events are associated to several contributing factors that play a key role in their onset. These factors can be summarized in three elements: the first concerns latent failures; the second concerns the conditions in the workplace that promote individual errors and violations e.g. lack of attention, work overload and the third and last factors are active failures - actions of neglect committed by professionals in contact with their clients[11].

Poor understanding of the error may lead to feelings of guilt, embarrassment and fear, as well as contribute both to increased mortality rates associated to severe adverse events and deterioration in the quality of life of patients and unsafe care [8,12].

Understanding the mechanisms of occurrence of adverse events is of key importance to the planning and implementation of preventive actions to ensure an environment that favors education[13], changing the traditional punitive approach and adopting a culture of safety[14].

Despite the several factors that contribute to the occurrence of AE, the professionals clearly indicated that reporting collaborates to improve care. The culture of reporting can be the first attitude to promote patient safety, through the understanding of the errors committed and implementation of preventive strategies [8].

The reporting of adverse events is considered a simple and practical means of communication of these unwanted facts and provides a database that helps the nursing staff in the planning of safer processes, in order to prevent the occurrence of future adverse events[15].

However, AD reporting is still neglected. Although health professionals are aware of the importance of this procedure, underreporting is very common. The reason for this decision is that, since most institutions adopt a punitive culture, many nurses fear punishments, dismissals, civil and legal lawsuits, as well as being held responsible under the Code of Ethics[16].

Some organizations realized that punishing the professionals responsible for these errors has not reduced the frequency of AE and are attempting to change this situation and prevent and monitor these events [17]. High quality care is not obtained with punishment of the professionals who committed errors, but rather through prevention and/or analysis of errors/non-conformities [16].

It is essential that nurses perceive AE reporting as a tool that helps improving the quality of care and allows them to share responsibilities with the management, stimulating the use of corrective actions in order to prevent future adverse events [18].

CONCLUSION

The present study showed that many health professionals do not know what an adverse event is, and that the reduced number of adverse events reported is caused by lack of information associated to the punitive culture.

It is concluded that educational actions are needed, as well as measures that encourage AE reporting by nurses for further analysis, correction and prevention of these events.

The present study provides an important view on the improvement of the quality of care delivered to the patients as well as on patient safety standards.

One limitation of this study is that the sample is composed only of nursing professionals, not allowing generalizations. However, the findings obtained can be compared to the perceptions of other health professionals.

REFERENCES

1. Padilha KG. Ocorrências iatrogênicas em Unidade de Terapia Intensiva (UTI): análise dos fatores relacionados. Rev Paul Enf. 2006; 25(1): 18-23.

2. Madalosso ARM. Iatrogenia do cuidado de enfermagem: dialogando com o perigo do cotidiano profissional. Rev. Latino-Am. Enfermagem. [Internet] 2000; 8(3) [acesso em 11 ago 2015]. Disponível: http://dx.doi.org/10.1590/S0104-11692000000300003.

3. Zambon LS. Segurança do paciente em terapia intensiva: caracterização de eventos adversos e pacientes críticos, avaliação de sua reação com mortalidade e identificação de fatores de risco para sua ocorrência (tese). São Paulo (SP): Faculdade de medicina da Universidade de São Paulo; 2014.

4. Bohomol E, Ramos LH. Erros de medicação: importância da notificação no gerenciamento da segurança do paciente. Rev.bras.enferm. 2007; 60(1): 32-6.

5. de Paiva MCMS, de Paiva SAR, Berti HW. Eventos adversos: análise de um instrumento de notificação utilizado no gerenciamento de enfermagem. Rev.esc. enferm. USP. 2010; 44(2) [acesso em 16 set 2015]. Disponível: http://dx.doi.org/10.1590/S0080-62342010000200007.

6. de Souza VS, Kawamoto AM, de Oliveira JLC, Tonini NS, Fernandes LM, Nicola AL. Erros e eventos adversos: a interface com a cultura de segurança dos profissionais de saúde.Cogitare Enferm. 2015; 20(3): 475-82.

7. Nascimento ER. Gênero e enfermagem. Salvador: Positiva; 1996

8. Duarte SCM, Stipp MAC, da Silva MM, de Oliveira FT. Eventos adversos e segurança na assistência de enfermagem. Rev. bras. enferm. 2015; 68(1): 144-54.

9. Varela JS, Suárez JR. Cultura de seguridad del paciente y eventos adversos. Curso de Evaluación y Mejora de la Calida

de Atención y la Seguridad del Paciente, 29. Ciudad del Mexico (Mexico): Comission Nacional de Arbitraje Medico – Centro Colaborador de la OPS; 2011.

10. Agência Nacional de Vigilância Sanitária (BR). Resolução n. 2, de 25 de janeiro de 2010. Dispõe sobre o gerenciamento de tecnologias em saúde em estabelecimentos de saúde.Diário Oficial da União, 26 jan 2010. Seção 1.

11. Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout and job dissatisfaction. JAMA. 2002; 288(3) [acesso em 07 fev 2016]. Disponível: http://www.nursing.upenn.edu/media/Californialegislation/Documents/Linda%20Aiken%20in%20the%20News%20PDFs/jama.pdf.

12. Oliveira RM, Leitão IMTA, da Silva LMS, Figueiredo SV, Sampaio RL, Gondim MM. Estratégias para promover segurança do paciente: da identificação dos riscos as práticas baseadas em evidências. Esc. Anna Nery. 2014; 18(1): 122-9.

13. da Silva LG, Matsuda LM. Um olhar para a qualidade no processo de atendimento em um serviço de urgência público. Cienc Cuid Saúde. 2012; 11(Suppl): 121-8.

14. Pedreira MLG. Práticas de enfermagem baseadas em evidencia para promover a segurança do paciente. Acta paul. enferm. 2009; 22[especial- 70 anos]: 880-1.

15. da Silva FG, Junior NJO, Oliveira DO, Nicoletti DR, Comin E. Análise de eventos adversos em um centro cirúrgico ambulatorial. Rev. Sobecc. 2015; 20(4): 202-9.

16. dos Santos AE, Padilha KG. Eventos adversos com medicação em Serviços de Emergência: condutas profissionais e sentimentos vivenciados por enfermeiros.Rev. bras. enferm. 2005; 58(4): 429-33.

17. de Mello JF, Barbosa SFF. Patient safety culture in intensive care: nursing contributions. Texto Contexto Enferm. 2013; 22(4): 1124-33.

18. Paiva MCMS, Popim RC, Melleiro MM, Tronchim DMR, Lima SAM, Juliani CMCM. Motivos da equipe de enfermagem para a notificação de eventos adversos. Rev. Latino-Am. Enfermagem. [Internet] 2014; 22(5) [acesso em 16 set 2015]. Disponível: http://dx.doi.org/10.1590/0104-1169.3556.2476.