ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL

EVALUATION OF THE IMPACT OF AN ONLINE TOOL ON THE NOTIFICATION OF ADVERSE EVENTS

ALIAÇÃO DO IMPACTO DE UMA FERRAMENTA ONLINE NA NOTIFICAÇÃO DE EVENTOS ADVERSOS

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ABSTRACT

Introduction: Aiming at greater adherence to notification of adverse events, the Patient Safety Center of the institution of the present study has developed and implemented, since 2018, an online tool for simple and quick notification of adverse events, in addition to training on how to use it. -over there. Objective: To assess the impact of an online tool in the notification of adverse events at the Institution. Methodology: Retrospective and descriptive study with comparative analysis of the number of notifications made by the printed form in the years 2016 and 2017, and by the online tool in the years 2018 and 2019. Results: From the year 2016 to 2017 using the allied printed form to the incentive to notify, there was an increase of 21% in the number of notifications. From 2017 to 2018, where there was a transition from the printed form to the online tool, there was an increase of 15.9% in the number of notifications. From 2018 to 2019 only with the online tool, there was a decrease of 6.3% in the number of notifications. Conclusion: The Online Tool contributed significantly to the health professionals' greater adherence to the practice of reporting incidents / events. The importance of the "hand-to-hand" work carried out by the professionals of the Center for Quality and Patient Safety with the heads and professionals of the units is emphasized, as a way of sensitizing the notification, as the Online Tool alone does not promote a constant increase in the number of notifications.
Keywords: Health Impact Assessment. Notification. Harm to the Patient.

RESUMO

Introdução: Visando maior aderência a notificação de eventos adversos, o Núcleo de Segurança do Paciente da Instituição do presente estudo desenvolveu e implementa, desde o ano de 2018, uma ferramenta online para notificação simples e rápida de eventos adversos, além de treinamentos de como usá-la. **Objetivo:** Avaliar o impacto de uma ferramenta online na notificação de eventos adversos na Instituição. **Metodologia:** Estudo retrospectivo e descritivo com análise comparativa do número de notificações realizadas pelo formulário impresso nos anos de 2016 e 2017, e pela ferramenta online nos anos de 2018 e 2019. **Resultados:** Do ano de 2016 a 2017 com a utilização do formulário impresso aliado ao incentivo à notificação, houve um aumento de 21% no número de notificações. De 2017 a 2018, onde houve uma transição do formulário impresso para a ferramenta online, houve aumento de 15,9% no número de notificações. Já de 2018 a 2019 somente com a ferramenta online, houve queda de 6,3% no número de notificações. **Conclusão:** A Ferramenta Online contribuiu de forma significativa para maior aderência dos profissionais de saúde à prática de notificação de incidentes/ eventos. Ressalta-se a importância do trabalho "corpo a corpo" realizado pelos profissionais do Núcleo de Qualidade e Segurança do Paciente junto às chefias e profissionais das unidades, como forma de sensibilização a notificação, pois a Ferramenta Online por si só não promove aumento constante no número de notificações.
Palavras-chave: Avaliação do Impacto na Saúde. Notificação. Dano ao Paciente.

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REVISTA ENFERMAGEM ATUAL

INTRODUCTION

The quality of care has been increasingly discussed in the hospital area, with a strong focus on patient safety. The reason is due to the diversity of adverse events that occurred in Hospital Institutions. In Brazil, the theme became more evident in 2013, with the creation of the National Patient Safety Program (PSNP), under which safety became the pillar of risk management aimed at quality and patient safety [1].

Through professional experience, there is a great challenge to standardize nursing care based on patient safety. Much is due to the care reality, with many devices used to provide the patient, complexity of hospitalizations, large number of medications, most of them venous with a systemic effect and lack of communication. In addition, there is great difficulty in care where surveillance and monitoring of the patient are compromised, leaving gaps for the occurrence of falls and pressure injuries.

Thus, for the purposes of monitoring, evaluation and decision making, the notification of adverse events is of great relevance, being essential for the planning of measures aimed at reducing or even finalizing the incidence of events. Based on the knowledge of what events take place in an institution, a prevention plan can be drawn up to minimize or even remedy their occurrence, but the most important thing is to enable the investigation of the factors influencing the occurrence of these events, and thus resolve or at least mitigate the root cause of the problem

However, due to several difficulties, sometimes signaled by professionals as impediments, there is a great underreporting of adverse events. In a study carried out in a teaching hospital in Minas Gerais (MG), in addition to factors such as the lack of knowledge on the part of professionals about what is an error, an adverse event and the very concept of patient safety, the professional still lacks information about the existence of the printed form as well as factors such as forgetfulness and the punitive culture that make notification difficult [2].

Based on the numbers, we have a dimension of the gravity of the situation, however, due to underreporting, there is no way to generalize. For this reason, it is important for Hospital Institutions to develop methods that facilitate the notification of adverse events by health professionals.

Aiming at greater adherence to the notification of adverse events, the Patient Safety Center of the Institution of the present study has developed and implements, since 2018, an online tool for simple and quick notification of adverse events, in addition to training on how to use it. . Before, the notification was carried out using a printed form, with low adherence on the part of the

REVISTA ENFERMAGEM ATUAL

professionals. With the online tool, the professional does not need to identify himself and can use any computer of the Institution and the information is forwarded to the Patient Safety Center at the same time.

In the absence of a study that assesses the effects of using such a tool at the Institution, the following research question arose: What is the impact of an online tool in the notification of adverse events?

The objective of the study was to evaluate the impact of an online tool in the notification of adverse events in the Institution, having as object of the study the improvement of the notification process with the use of the online tool.

METHODOLOGY

This was a retrospective study with statistical analysis to compare the number of notifications made to the Patient Safety Unit of a General Hospital, from the period between 2016 and 2017 (when the notification was made using the printed form) and 2018 and 2019 (when the notification started to be performed by the online tool).

Since the data are not in the public domain, access to them was made with the authorization of the Institution's Quality and Patient Safety Center. Exemption from ICF was requested because the study does not directly involve human beings. The project was approved by the UNIRIO CEP (CAAE 33377620.4.0000.5285) and by the HFB CEP (CAAE 33377620.4.3001.5253).

It is noteworthy that the online tool is available on all computers of the Institution for any health professional involved in the assistance, directly or indirectly, to have access. The notification is carried out whenever there is an adverse event, not having a specific period to carry it out, but preferably right after the event. The Quality and Patient Safety Center uses the FormSUS platform, which is a DATASUS tool. As soon as the professional makes the notification and records the information in the system, the notification becomes available for the coordination of the Quality and Patient Safety Center. When the professional notifies, he receives his notification number. The tool allows you to give a direct feedback to the professional if he registers his email at the moment he made the notification. But it is not mandatory, after all, secrecy is guaranteed in this tool. As soon as the notification is received, it is registered and the graph is automatically generated. The feedback to the Institution is carried out every six months to the coordinators.

After identifying and analyzing the data, they were inserted into a spreadsheet, analyzed using descriptive statistics and Student's t test, and presented in tables and graphs (in absolute numbers and percentages).

The risks of the study referred to the

REVISTA ENFERMAGEM ATUAL

chance of the minimal possibility of access by the researcher to information that could identify the patients.

DISCUSSION

Patient Safety started to be discussed in Brazil in 2002 with the creation of the Brazilian Network of Sentinel Hospitals by ANVISA. In 2013, the National Patient Safety Program (PNSP) was launched, instituted by Ordinance No. 529/13 of the Ministry of Health (MS) and the Resolution of the Collegiate Board (RDC) 36/2013, which instituted actions for patient safety in services of health. Even after 18 years, we still face obstacles in relation to the topic.

Patient Safety (SP) is the reduction to an acceptable minimum of the risk of unnecessary harm associated with health care [3]. The damage can be mild, moderate or severe, according to the level of damage caused [4]. The adverse event is simpler to be quantified because it causes direct damage and thus facilitates its identification, as generally errors that did not cause damage to patients may not be recognized by the team in daily care [5]. The incident that did not reach the patient is called a near miss. When the event reaches the patient, but does not cause harm, it is treated as a harmless incident. The event that causes damage to the patient, that is, incident with damage, is in fact an adverse event [6].

There is a great challenge in the issue of notification of adverse events by health services, and in care practice, this factor is due to multifactorial issues. Fear of punishment, excessive workload that does not offer time for notification and misunderstanding of the importance of notifying, are the causes most reported by nursing teams [7].

The issue of fear of punishment is a hotly debated topic and has been clarified to health professionals, mainly by the Patient Safety Centers of Hospitals. In the event of an event, the search is for the cause within the care process and not for the culprit. The error is related to the person and the systemic approach, where human beings are fallible and errors are associated with systemic factors [8].

We still have a lot to improve, especially when we look at international notifications. While in Brazil, notifications are related to individuals, in international studies they are related to medical records [9]. In this way, it becomes evident, for example, the occurrence of more than one event in the same patient and thus obtaining a much broader view about the events suffered by patients during health care. If the same patient has suffered more than one event, there is a strong sign of a deficiency in care or care management that needs to be resolved.

Regardless of the difficulties

REVISTA ENFERMAGEM ATUAL

experienced in health services, notification is an indispensable action for the recognition of existing weaknesses, that is, the deficiencies or problems of a service, which facilitate the occurrence of events, and its recognition is essential to improve the causal factors. The notification of incidents that occurred during the assistance is a strategy for management, reduction and control of the occurrence of adverse events [10].

The RJ occupied the 14th place in the Brazilian states, which notified EA, with 2537 cases notified. Also, according to the same bulletin, the highest number of incidents occurred in the hospital service category, with 96113 notifications at national level. In relation to hospital units, the inpatient sectors occupied the 1st place, with 49600 reported incidents. Notifications such as tube obstruction, phlebitis, events with venous catheter and failures in care are the most reported incidents. In addition, 60% of incidents occur in the morning shift [11].

Mortality associated with adverse events is among the 1st to 5th causes of death in Brazil, 104,187 to 434,112 possible deaths associated with adverse hospital events / year and R $ 15.5 billion spent by hospital care insecurity [12].

Alarming data for the year 2017 were evidenced where the mortality associated with any adverse event that occurred in hospital care in SUS was 22.8% and in supplementary health it was 12.0%. Regarding mortality associated with serious adverse events related to hospital care, SUS obtained 37% and supplementary health 28.8%. Together, public and private hospitals in Brazil registered, in 2017, six deaths every hour, resulting from “serious adverse events” caused by errors, procedural or procedural failures or infections, among other factors. Of these, more than four deaths would be preventable [6].

In a study carried out at the Hospital das Clínicas of the Faculty of Medicine of Ribeirão Preto of the University of São Paulo (HCFMRP-USP) in 2013, comparing the use of handwritten and computerized notification forms in the same period, it was found greater adherence to the computerized system and there was a great improvement in the quality of the notifications in the computerized mode [13].

RESULTS

During the 4-year period, 382 notifications were made to the sector, which is equivalent to 100%, using the printed form in 2016 and 2017, and using the online form in 2018 and 2019. The following table specifies the number of notifications in each year. in addition to calculating the impact in absolute numbers and percentages.

Table 1. Number of notifications per year and impact each year

Impact of the Online Tool on the number of notifications in absolute and percentage values

YEAR	VEHICLE	Nº NOTIFICATIONS ABS	Nº NOTIFICATIONS %	IMPACT ABS	%
2016	Printed	11	2,9	*	*
2017	Printed	91	23,9	+ 80	+ 21
2018	Online	152	39,8	+ 61	+ 15,9
2019	Online	128	33,5	- 24	- 6,3

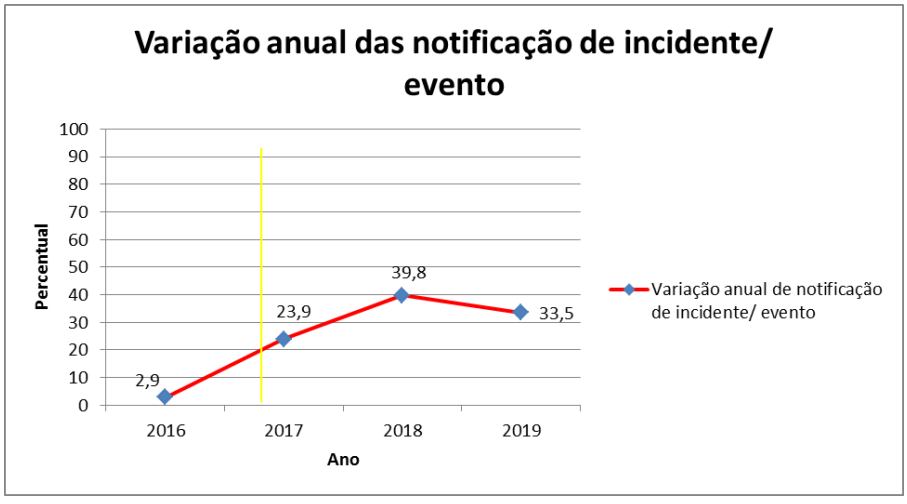
ABS: Absolute numbers
* No previous year for evaluation due to cut data analysis of the study

Source: Center for Quality and Patient Safety

According to the table, the notifications made to the Patient Safety Center by the printed form in the years 2016 and 2017 were 11 (2.9%) and 91 (23.9%), respectively. In the years 2018 and 2019 with the use of the online tool, this number increased to 152 (39.8%) and declined in 2019 to 128 (33.5%) notifications.

Specifically in relation to the impact of the online tool, we can obtain a better visualization in the graph below.

Graph 1. Demonstration of the variation of incident / damage notifications in the period from 2016 to 2019



Source: Center for Quality and Patient Safety

We observed an increase of 80 notifications from the year 2016 to the year 2017, corresponding to 21%, a period in which the printed form was used and

REVISTA ENFERMAGEM ATUAL

awareness campaigns for notification were carried out. When evaluating the period from 2017 to 2018, when there was a transition from the printed form to the online tool, we observed an increase, but less expressive in relation to the first, with 61 more notifications made compared to the previous year, corresponding to 15.9% of increase. However, for the year 2019, there was a drop of 24 notifications, at which time the online tool was already quite consolidated in the Institution, however, there were no motivational campaigns focused on the notification of incidents / events, representing a drop of 6.3 %.

In order to assess the impact of the online notification tool, we made a comparison of the notification average of 2018, the year the tool was started, with the other years using the Student t test as shown below.

Table 2. Comparison of the average of notifications (Student's t test), comparing 2018 with the other periods, 2016 to 2019.

Comparação	2018 (média ± D.P.)	Demais anos (média ± D.P.)	Teste t	p-valor
2018 x 2016	14,3 ± 5,3	0,9 ± 0,8	8,7	0,0001
2018 x 2017	14,3 ± 5,3	5 ± 3,5	5,1	0,0001
2018 x 2019	14,3 ± 5,3	9,3 ± 4,4	2,5	0,02

Source: Center for Quality and Patient Safety

Analyzing the table above, we can identify that 2018 was indeed the year with the greatest impact on notifications. When comparing 2018 with 2016 and 2017, we can observe a significant difference (p 0.0001). The same happens when we evaluate the year 2018 compared to the year 2019 where we also identified a significant difference, but with less impact (p 0.02).

CONCLUSION

It was concluded that the Online Tool contributed significantly to the health professionals' adherence to the practice of reporting incidents / events. In fact, in 2019 there was a decrease of 6.3% in the number of notifications compared to 2018, the year with the greatest positive impact

This drop was due to the reduction in motivational campaigns focused on notification. However, compared to the years 2016 and 2017, in which the Online Tool was not yet used, an increase in notifications is

REVISTA ENFERMAGEM ATUAL

clearly seen in absolute numbers, with 11 carried out in 2016 and 128 carried out in 2019. Therefore, the importance of the work is emphasized. “Hand-to-hand” carried out by the professionals of the Quality and Patient Safety Center together with the heads and professionals of the units, as a way of raising awareness of the notification, as the Online Tool alone does not promote a constant increase in the number of notifications.

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