ADVERSE EVENTS CAUSED BY NURSING CARE: REPORTED BY THE MEDIA EVENTOS ADVERSOS OCASIONADOS PELA ASSISTENCIA DE ENFERMAGEM: NOTICIADOS PELA MÍDIA

EVENTOS ADVERSOS OCASIONADOS POR LA ASISTENCIA DE ENFERMERÍA: NOTICIADOS POR LOS MEDIOS

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ABSTRACT

Objective: to characterize the information of audiovisual documents available on YouTube about the adverse events caused by the care to the patient in Brazil and reported by the television media. **Method:** quantitative, descriptive and documentary study, whose sample consisted of 15 audiovisual documents. Data were statistically treated by simple and accumulated frequency. **Results:** the institutions where most adverse events occurred were public, involving nursing technicians and female. As for the damage degree, most were between serious and fatal, being children and elders the most vulnerable patients, triggered by error while administering medication. **Conclusion:** the adverse events had superficial media repercussions. On the other hand, it aroused the great interest of YouTube users. The factors responsible for the occurrence of these events were work overload, salary gap of the nursing professional and inappropriate physical environment for the exercise of the profession. **Descriptors:** Nursing Care; Video-Audio Media; Iatrogenic Disease; Patient Safety; Medication Errs; Hospital Medication System.

RESUMO

Objetivo: caracterizar as informações de documentos audiovisuais disponíveis no YouTube sobre os eventos adversos ocasionados pela assistência de enfermagem no Brasil e noticiados pela mídia televisiva. **Método:** estudo quantitativo, descritivo e documental cuja amostra foi composta por 15 documentos audiovisuais. Os dados foram tratados estatisticamente por frequência simples e acumulada. **Resultados:** as instituições onde mais ocorreram os eventos adversos foram as públicas, envolvendo os profissionais de enfermagem do nível médio e do gênero feminino. Quanto à intensidade do dano, a maioria esteve entre grave e óbito, tendo como os usuários mais vulneráveis menores de idade e idosos, desencadeados por erro na administração de medicação. **Conclusão:** os eventos adversos tiveram repercussão midiática superficial. Em contrapartida, despertou o grande interesse dos usuários do YouTube. Os fatores próprios para o desenvolvimento desses eventos foram a sobrecarga de trabalho, a defasagem salarial do profissional de enfermagem e ambiente físico inadequado para o exercício da profissão. **Descritores:** Cuidados de Enfermagem; Mídia Audiovisual; Doença Iatrogênica; Segurança do Paciente; Erros de Medicação; Sistema de Medicação no Hospital.

RESUMEN

Objetivo: caracterizar las informaciones de documentos audiovisuales disponibles en YouTube sobre los eventos adversos ocasionados por la asistencia de enfermería en Brasil y divulgados por los medios de comunicación. **Método:** estudio cuantitativo, descriptivo y documental cuya muestra se compuso de 15 documentos audiovisuales. Los datos fueron tratados estadísticamente por frecuencia simple y acumulada. **Resultados:** las instituciones donde más ocurrieron los eventos adversos fueron las públicas, involucrando a los profesionales de enfermería del nivel medio y del género femenino. En cuanto a la intensidad del daño, la mayoría estuvo entre grave y óbito, teniendo como los usuarios más vulnerables menores de edad y ancianos, desencadenados por error en la administración de medicación. **Conclusión:** los eventos adversos tuvieron repercusión mediática superficial. En cambio, despertó el gran interés de los usuarios de YouTube. Los factores propiciales para el desarrollo de estos eventos fueron la sobrecarga de trabajo, el desfase salarial del profesional de enfermería y ambiente físico inadecuado para el ejercicio de la profesión. **Descriptor:** Atención de Enfermería; Medios Audiovisuales; Enfermedad Iatrogénica; Seguridad del Paciente; Errores de Medicación; Sistema de Medicación en el Hospital.

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INTRODUCTION

The errors or failures are intentional episodes, or not, resulting from health professionals' assistance to patients. Adverse events (AE) are damages caused by errors of these professionals' assistance, and can generate a temporary or permanent injury, disable patients or even evolve to death.¹

The occurrence of AE has an important impact in the Unified Health System due to several factors: morbidity and mortality, duration of patients' treatment and costs for these services, in addition to affecting other fields of economic and social life of the country.¹ In developed countries, the percentage of such problem revolves around 05-15%, and, in developing countries, such as Brazil, they are less assess due to the organizational culture of underreporting in some healthcare institutions.²

YouTube is a social networking site on the internet, resulting from connecting activities between groups or users that has several tools that include the sharing of any audio or audiovisual digital information, instantaneously by any person, whether a citizen, company or government, which, when shared, becomes a source of documents.³ Document is any record of information with the purpose to explain a phenomenon or situation, and can be classified according to its origin (public or private) and with various formats (writing, iconographic, audio and/or visual), being the researcher responsible for its use and recognition.⁴

Nursing, as part of the health area, incorporates the tertiary sector of the Brazilian economy in the provision of services, differentiating from other areas by workin with humans as the object of its activities, providing ongoing health care, based on the quality of care and patient safety (PS).⁵ For the nursing professional, the occurrence of AE may lead to since emotional stress through an ethical-legal punishment and, in this sense, major investments are necessary in the PS culture, and not only a punitive discussion with media repercussions about the fact.⁶

Despite advances and studies addressing PS, human error is one of the main factors that involves health professionals in hospital services (HS), reported and perceived many times through the television media, internet and social networks, reflecting a social commotion.⁷ The nurse plays an important role in the management of risks and prevention of errors, for being the most active professional in the PS culture and the quality of health care.⁸

The representations of aspects related to PS and the search for care quality arouse the interest in a situational diagnosis and identification of gaps left by AE underreporting. However, the scientific production in the area may be able to elucidate the confusing aspects related to nursing care and its relation with such problems.⁶⁻⁸ In addition, the following guiding question emerged: What is the information present in audiovisual documents (AVD) available on YouTube on AE caused by nursing care in Brazil and reported by the television media?

OBJECTIVE

- To characterize the information of audiovisual documents available on YouTube about the adverse events caused by the care to the patient in Brazil and reported by the television media.

METHOD

Quantitative, descriptive and documentary study, with data from public domain, carried out on YouTube, whose virtual address is: www.youtube.com. The study followed the research protocol composed by elements: research theme, guiding question, objective, research strategy, selection of studies, critical evaluation of studies and presentation of results with discussion.

Data collection occurred during April to May 2017 by initially typing, in the search field on the site, the expression prepared by the authors with keywords "Brazilian reports on Nursing Errors available on YouTube". For best location of the sample, the filter "video" was used, defining as inclusion criteria for selecting audiovisual documents: Brazilian news reports and in the last 10 years, and exclusion criteria: irrelevant to the study topic, repeated and inconclusive information in relation to the guiding question.

In the search flowchart, there were 20,300 audio and audiovisual documents available. When adding the filter "video", there was a reduction to 17,800. When opening the indicated pages, only 512 AVD were present, and, after applying the inclusion and exclusion criteria, the defined sample consisted of 15 AVD. The links to these documents were saved for later analysis. In this new phase, the survey was conducted from visits to selected links, which happened without defined location, since there is no access restriction to the AVD if visited at different places, different from some research portals. Thus, the various necessary accesses occurred in

different moments, for observation and analysis of such pre-selected documents in an organized manner.

In the sample, for extraction of information relevant to the research, a validated instrument⁹ was applied, containing length time of the video (in minutes and seconds - m's''). In the description of the videos, the researchers observed the posting date, visualizations and the category, event type, event date, event place (state capital or interior), type of institution where the adverse event occurred (primary care or hospital), category of nursing professional (student, assistant, technician or nurse), factors that led to the adverse event, gender, age of the patient, consequences for the patient, the newscast, year of publication and visualizations.

Data analysis consisted of descriptive statistics with the software Statical Package for Social Science (SPSS) version 20 and Statistical Analisys System 9.02, and the results are presented with tables and a frame synthetizing the characterization.

The appretiation of the ethics committee was not necessary, once the research uses documents from public domain. Even so, the study respected the principles of bioethics in researches in relation to Resolutions 466/2012 and 510/2016 of the National Health Council, keeping the anonymity of the TV news and the subjects involved in the AVD.

RESULTS

The information extracted from the 15 AVD of Brazilian news reports on AE caused by nursing care in Brazil available on YouTube revealed the main information gathered synthetically in Figure 1, containing: video title, news summary, visualizations and the links of the Brazilian TV news. The titles of the videos were impactful, but revealed lack of knowledge regarding error and AE, and, in relation to the most accessed ones, there were 76,307 accesses and the least viewed was seen 88 times.

Title	Visualization	Summary	Link
Number of reports against errors made by nursing assistants tripled	88	Medication Error: Dilution of wrong medication, potassium chloride instead of sodium chloride.	https://youtu.be/yEES5oRYt3U
Nursing technician admitted error that caused baby's death	614	Parenteral administration of enteral diet.	https://youtu.be/eLyk82d2pCM
Report of medication error	677	Medication error: Change of medication, leading to patient's sickness.	https://youtu.be/C6IJKchyACg
Report of nursing error at hospital	1,146	Medication Error: Change of medication, making the victim dependent on continuous O ₂ .	https://youtu.be/uzO0Nz5m7Ng
Victim of hospital err dies in Patos	1,290	Parenteral administration of enteral diet, leading to the elderly patient death.	https://youtu.be/zAsHWurSC5o
Number of nursing errors increases	1,698	Parenteral administration of enteral diet and the baby's death.	https://youtu.be/Pf5OxoPf9M4
Boy's arm amputation due to a nurse's error.	2,761	Peripheral catheter insertion error for medication administration, causing infiltration and necrosis, leading to limb amputation.	https://youtu.be/Bazjhbic8tU
Absurd nursing failures cause traumas and even take lives.	3,297	Medication error: Exchange of eye drops, another eye drop was applied instead of silver nitrate, causing blindness.	https://youtu.be/frGS8jYNyOU
Woman whose daughter died due to nursing technician's error waits for justice	5,616	Medication err: child's death.	https://youtu.be/4VVVA9x9Mec
Nursing assistant cuts off baby's finger.	5,999	During dressing change, the nursing assistant cut off a child's finger with school scissors.	https://youtu.be/4p23xn1YaFs
Gross errors that cost lives.	13,573	Administration of acid instead of sedative.	https://youtu.be/ipHaFVb4jCY
Nursing trainee is dismissed for injecting coffee with milk into patient's vein.	21,989	Parenteral administration of oral diet in elderly patient, leading to her death.	https://youtu.be/2YUzjbyC3Q
Nurse exchanges medication for food inn Baby's blood.	28,414	Parenteral administration (central catheter) of milk in a baby, aggravating his health condition, and leading to risk of death.	https://youtu.be/h0euRn4hBhU
Nursing assistant talks about her mistake to <i>Fantástico</i> .	32,022	Administration of Vaseline in a 12-year-old girl, causing her death.	https://youtu.be/F97hCFuvRig
Errors caused by		Parenteral	

nursing professionals grow in a frightening way in Brazil.	44,285	administration of glycerol in an elderly woman, causing her death.	https://youtu.be/l6D9rRqZyHI
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Figure 1. Synthesis matrix of the audiovisual documents: title, visualization, summary and link. Maceió (AL), Brazil. Source: Youtube, 2017.

The AVD length time, in minutes (66.7%), body or company as the author (60%), news and policies as category (53.3%), news dissemination as focus (66.7%) and year of posting 2011, 2012 and 2013 (26.1%) (Table 01).

Table 1. Characterization of the audiovisual documents regarding the videos profile. Maceió (AL) Brazil, 2017.		
Variable	n	%
Video Duration		
Short (< 4min.)	5	33.3
Intermediate (4 min. - 20 min.)	10	66.7
Authorship		
Person	6	40.0
Body or company	9	60.0
Category		
News and politics	8	53.3
People and blogs	4	26.7
Others	3	20.0
Approach		
Education	2	13.3
News	10	66.7
Journalistic	3	20.0
Yera of the post		
2010	1	6.7
2011	4	26.7
2012	4	26.7
2013	4	26.7
2014	1	6.7
2015	1	6.7
Total	15	100

The state of São Paulo (46.7%) stands out, as well as the major Brazilian capitals (53.3%) and the public hospital services (PHS) (100%). The female gender (100%) and the NT professional category (33.3%) were the most involved in these incidents (Table 2).

Table 2. Characterization of Audiovisual Documents: Demographic Variables and Professional Profile of Those Involved in Adverse Events. Maceió (AL) Brazil, 2017.		
Variable	n	%
State		
SP	7	46.7
CE	1	6.7
RJ	4	26.7
BA	1	6.7
RS	2	13.3
Capital / Countryside		
Capital	8	53.3
Countryside	7	46.7
Health Institution		
Public Hospital Service	15	100.0
Professional's Gender		
Femmale	15	100.0
Professional Category		
Nursing Assistant	4	26.7
Nursing Technician	5	33.3
Nurse	4	26.7
NT Trainee	1	6.7
Uninformed	1	6.7
Total	15	100

In relation to age in the public hospital services (PHS), children (66.7%) and elderly people (26.7%) were the most susceptible to AE (Table 03).

Table 3. Characterization of the Videos regarding the most vulnerable to adverse events age group. Maceió (AL) Brazil, 2017.

Variable	n	%
Patient's Age Group		
NB (<28 days)	4	26.7
Baby (29 days - 2 years old)	3	20.0
Children (2 - 12 years old)	3	20.0
Adult (18 - 59 years old)	1	6.7
Elder (> 60 years old)	4	26.7
Total	15	100

The characteristics of the AE in the AVD regarding the intensity of the damage caused to the users, according to the classification

Aizenstein and Tomassi (2011): severe and death (73.4%), and, in smaller proportions, mild (6.7%).

Table 4. Damage Intensity Classification according to Aizenstein and Tomassi (2011). Maceió (AL) Brazil, 2017.

Variable	n	%
Intensity Classification of Patient's Damage		
Temporary damage requiring treatment	1	6.7
Permanent damage	4	26.7
Patient almost died	3	20.0
Death	7	46.7
Total	15	100

According to the AVD, the factors that led to an AE were overload (40%) and lack of physical structure of the institution (20%).

DISCUSSION

According to the study¹⁰ that described the history of the internet and popularization of AVD, since the creation of YouTube in 2005, this was considered the largest site of instant sharing of easy publication and, after its acquisition by Google in 2006, it became the leader of the sector of audiovisual resources on the internet, being the interest of those that watch and share AVD by current themes, as seen in Figure 1 that AE had greater media coverage.

Another study⁹ ratifies that YouTube is the most spreading and recognized among service users, verifying a corroboration between the variables with the AVD characterization in Table 01, such as: legth time and authorship body or company; however, in relation to category, focus and year of posting, there was a divergence. Complementing this study⁹ in relation to the variable year of posting, another study¹¹, which used as data source the disclosures about medication errors in the Brazilian media in their particularities, in the period from December 2010 until March 2013, revealed a large number of medication errors reported in the media, corroborating the data of this study (Figure 1 and Table 1).

According to a synthesis of knowledge⁶, whose goal was to identify scientific publications about AE resulting from nursing care in hospitalized patients, there was corroboration in relation to demographic variables in this study (Table 02), in which most places where such events occurred were

Public Hospital Services (PHS), in large states, and often in large capitals, which may occur due to their greatest concentration of population and the largest numbers of hospital services.¹

Another study¹¹, conducted in the medical clinic sector of a large PHS, Distrito Federal - DF/Brazil, with electronic records, showed that the data related to errors of nursing assistance represent a warning signal, configuring a concern to health professionals, patients and government bodies for often causing irreversible AE, which can lead to impairment tor even death of these patients, corroborating the aforementioned integrative review⁶, as depicted in Table 4.

According to the results of the Brazilian nursing profile¹², carried out by the Oswaldo Cruz Foundation (FIOCRUZ), through the initiative of the Federal Nursing Council (COFEN), presenting a detailed diagnosis of the situation of this professional category working n Brazil, nursing is composed mostly by women, with a small number of men, and with the prevalence of NT, converging with this study (Table 2).

In relation to the professional category, there was prevalence of NT (Table 2). A documental study¹¹, developed at a Medical Clinic Unit of a PHS of Goiás, Brazil, renowned for being part of the Anvisa Sentinel Hhospitals Network, showed that, most of the 365 doses of intravenous medications prepared by NT presented medication errors, but nursing was the final professional in the error, because it often begins with prescription and medication administration.

Also regarding the Brazilian nursing profile, another cut¹⁴ pointed out that nursing, in

some way, is poorly remunerated, requiring multiple employment relationships to compose family income, which generates work overload, corroborating, thus, the results of this study. In accordance with other integrative review¹⁵, which described the types and causes of medication errors during nursing care practice, some of the factors that influence errors at hospital services are: firstly, work overload, in both the working sector as multiple employment relationships by bad financial remuneration, followed by work mental stress and communication failure in the multidisciplinary team, corroborating this study and others aforementioned.¹⁴

Another reason that influences errors and AE, in addition to work overload, is the lack of physical structure, as explained in the Pakistani international panorama¹⁶, which converged with the results of this study, and demonstrated solutions to the problem, pointing out the need to invest in the improvement of the physical structure of PHS and to increase the nursing team, in order to reduce the work overload, converging, therefore, with this study, and with another synthesis of knowledge.¹⁵

Another reality¹⁷, which mapped medication errors from a large private HS, located in the countryside of São Paulo, Brazil, based on 339 notification reports of errors and AE resulting from nursing assistance, showed convergence of the same study state and divergence of the hospital institution (Table 2).

Another relevant fact in this scientific production¹⁷ is that most errors related to lack of the right medication, which reinforces the importance of appropriate pharmaceutical assistance, ensuring that the patient is receiving the right medication, in the adequate route and pharmaceutical form, in appropriate doses and correct times, through activities related to the analysis of prescription and administration final conference, which corroborates the findings of another study¹³ that shows that, in this problematic, nursing represents the final professional of the process.

Addressing another study that replaced handwritten prescription by electronic one¹¹, an important fact is that these contained some inefficient and wrong information, such as: illegible letters, prescription without appropriate diluents for each medication, medicines with wrong trade names and abbreviations, concluding that, when the prescription was computerized, the factors of errors and AE were minimized.

In another scientific production whose goal was similar to this⁷ performed at a PHS in the South of Minas Gerais, Brazil, with handwritten AE notification records with a sample of 189 notifications, although the divergent nature of the sample, it corroborates in relation to the variable of AE and prevalent professional category. However, another relevant fact was the night shift presented the greatest frequency of errors that led to AE, which, in this study, was not mentioned by Brazilian TV news.

Another research with general reports available on Google¹⁸ showed that, in relation to the vulnerability of patients with the institutionalization at PHS in some age groups, corroborating the data presented in Table 03, the most affect patients were children and elderly people, also corroborating the hospital institution in this study (Table 2).

Regarding the productions sharing and the high visualizations of the AVD by the great interest in the theme (Figure 1), such results corroborate other studies¹⁸⁻¹⁹ that explained that the most viewed cases most caused social commotion. According to the Safe Care Manual of the *Agência de Vigilância Sanitária* (Anvisa - Sanitary Surveillance Agency): A Theoretical Reflection Applied to Practice, from the Patient Safety² series, stated that one of the limitations found in studies of this nature happens in the conduct of omission of health services, in an attempt to hide the undesirable events related to health care. The media generally exposes adverse events for patients impactfully, emphasizing only the ethical and legal punishments in the professionals involved (Figure 1), causing feelings of fear and shame. Until 2013, there were several AE reports (Table 1), reduced after the implementation of the patient safety theme in Brazil by Anvisa.²

This issue is so disastrous for the health professionals involved that, many times, the real situation of error and what led to the error is not publicized¹⁹, thus contributing to the hegemonic punitive culture, being another explanation for the variables set out in Chart I and complementing the information mentioned in the preceding paragraph in agreement with other authors.¹⁸ In the international context, following the paradoxical line of the statements of PHS/Brazilians, according to nurses' narrative in another scientific production¹⁶, the research between the association with organizational culture and error reports mentioned the absence or underreporting about the error reports culture and its consequences for the patient. However, the

organizacional deficiency stands out, not the omission of professionals, as presented in other productions.^{2,18-9}

A survey carried out with a Brazilian doctorate student in Porto, Portugal, with the methodological design similar to this²⁰, but with AVD available in Brazilian and Portuguese networks, corroborated the authors^{2,18} when stating that the media generally reports information superficially or partially. According to the results of an integrative review whose objective was to identify, in the literature, the relationship between medication errors and nursing team²¹, it is important to notify not only the AE, but also the errors, because the facts provide nursing a reliable communication about the unexpected occurrences, allowing the recognition of failures to promote and prevent future problems related to this health care.

In the Department of Pharmacology of the University of São Paulo, another study²² about the problems related to medications and their adverse reactions was developed, pointing out the need for a standardization of definitions and classifications of the damage caused to the patient used in this study (Figure II), which mentioned that most AE related to errors in medication administration. According to the profile of the reports available on the internet¹⁸, it corroborates the data from this study, showing that all the addressed damage had a great disabling intensity in affected patients (Table I and Table 4).

Another study with AVD performed on the same sharing site¹⁹ reported that the PS theme and the nursing care quality are parts of a whole, where nursing care is for the human being and care quality depends on each nurse performing it, based on a systemic vision, which seeks to overcome the punishment culture in favor of promoting the safety culture for professionals. With incentive to notifications designed to systemic focus related to problematic, health institutions will be able to draw new methods of care and valuation of health professionals.²¹

Policies are necessary to reduce errors and AE caused to patients, which require researches focused on identifying the best mechanisms for prevention and dissemination of new ideas and enthusiasm to adopt them. Ensuring patient safety should be the goal of health services.^{2,23} To achieve a secure setting for patients at HS, the professionals involved with the care need to adopt a conduct of continuous learning, in which AE report and analysis of its causes trigger elements of care processes in order to avoid repetition of unwanted situations.²³

CONCLUSION

The objective was achieved with the characterization of information of AE caused by nursing care in Brazil, from the AVD available on YouTube in the Brazilian TV news reports. However, nurses need to modify the culture of seeing AE as an isolated fact, considering them a systemic problem.

In relation to their characterization profile, the majority had intermediate length time, body or company authorship, focused on education and only one was sent by a Brazilian TV news and no educational institution. In the AE demographic characterization, most of them occurred in the state of São Paulo, and all at PHS. All the news was covered by large Brazilian TV news, highlighting NT category and the female gender as the most involved in errors and AE. In relation to the vulnerability of affected patients, corroborating the literature discussed in the study, children and elderly people stood out, and, the more serious the AE, the more viewed on YouTube.

Regarding the seriousness profile, most patients progressed to death or acquired irreversible sequelae. The factors that led to these events were, firstly, work overload, due to the category wage gap and, finally, inappropriate physical environment. The occurrence of AE in the AVD also decreased after 2013, coinciding with Anvisa PS campaign by addressing the whole multidisciplinary health team.

In addition, an enhanced search tool on the site is necessary to facilitate studies such as this one, as well as the expansion of this research protocol at private HS, since, according to the literature consulted, there is a gap in knowledge.

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