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Adverse events in a psychiatric hospitalization unit

Eventos adversos em uma unidade de internação psiquiátrica

Eventos adversos en una unidad de hospitalización psiquiátrica

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ABSTRACT

Objective: to describe the adverse events found in psychiatric hospitalization, analyzing them in the light of the human error theory. **Method:** a qualitative research study, carried out in 2018 in a psychiatric hospital. The data were collected through semi-structured interviews with 15 health professionals from the multidisciplinary team. Analysis was of the lexical type using the Alceste software. **Results:** adverse drug events were evidenced due to administration errors or adverse drug reactions, which produce harms such as impregnation and extrapyramidal reactions associated with the risks for falls and bronchoaspiration due to drowsiness and/or sedation. Other harms are related to the patient's aggressiveness, which produce bodily self-harm or harms to another person, such as during a suicide attempt or use of violence as an escape or defense behavior. **Conclusion and implications for the practice:** some adverse events are more frequent in psychiatric hospitalization settings; such events need to be known by the mental health team, as they require mitigation actions through the strengthening of patient safety systems. The data subsidize actions for strengthening safety systems in psychiatric hospitalization settings and contribute to reflecting on the concept of patient safety in Psychiatry.

Keywords: Nursing; Patient Assistance Team; Psychiatric Hospitals; Psychiatry; Patient Safety.

RESUMO

Objetivo: descrever os eventos adversos presentes na internação psiquiátrica, analisando-os à luz da teoria do erro humano. **Método**: pesquisa qualitativa, realizada em 2018 em um hospital psiquiátrico. Os dados foram coletados por entrevistas semiestruturadas com 15 profissionais de saúde da equipe multidisciplinar. A análise foi lexical por meio do software Alceste. **Resultados**: evidenciaram-se eventos adversos medicamentosos por erros de administração ou por reações adversas a medicamentos, que produzem danos como impregnação, reações extrapiramidais associadas aos riscos de queda e broncoaspiração pela sonolência e/ou sedação. Outros danos relacionam-se à agressividade do paciente, que produz lesões corporais a si ou a outro, como durante uma tentativa de suicídio ou uso de violência como comportamento de fuga ou defesa. **Considerações finais e implicações para a prática**: existem eventos adversos mais comuns nos ambientes de internação psiquiátrica que precisam ser de conhecimento da equipe de saúde mental porque demandam ações de mitigação por meio do fortalecimento dos sistemas de segurança do paciente. Os dados subsidiam ações para o fortalecimento dos sistemas de segurança nos ambientes de internação psiquiátrica e contribuem à reflexão do conceito de segurança do paciente na psiquiatria.

Palavras-chave: Enfermagem; Equipe de Assistência ao Paciente; Hospitais Psiquiátricos; Psiquiatria; Segurança do Paciente.

RESUMEN

Objetivo: describir los eventos adversos presentes en la hospitalización psiquiátrica, analizándolos a la luz de la teoría del error humano. **Método:** investigación cualitativa, realizada en 2018 en un hospital psiquiátrico. Los datos se recolectaron a través de entrevistas semiestructuradas con 15 profesionales de la salud del equipo multidisciplinario. Se llevó a cabo el análisis léxico por medio del software Alceste. **Resultados:** se evidenciaron eventos adversos por errores de administración o reacciones adversas al fármaco, que producen daños como impregnación y reacciones extrapiramidales asociadas al riesgo de caídas y broncoaspiración por somnolencia y / o sedación. Otros daños se relacionan con agresividad por parte del paciente, que produce daño corporal a sí mismo o a otro, como durante un intento de suicidio o uso de violencia como conducta de fuga o defensa. **Conclusión e implicaciones para la práctica:** hay eventos adversos más comunes en entornos de hospitalización psiquiátrica que deben ser conocidos por el equipo de salud mental porque exigen acciones de mitigación a través del fortalecimiento de los sistemas de seguridad del paciente. Los datos reflejan la necesidad de implementar acciones para fortalecer los sistemas de seguridad en entornos de hospitalización psiquiátrica y contribuyen a la reflexión del concepto de seguridad del paciente en psiquiatría.

Palabras clave: Enfermería; Equipo de Asistencia al Paciente; Hospitales Psiquiátricos; Psiquiatría; Seguridad del Paciente.

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INTRODUCTION

The topic of patient safety has been the focus of health institutions aimed at developing care that is increasingly safe, effective and sustainable. It is understood as the reduction, to an acceptable minimum, of the risk of unnecessary harm associated with health care. When they occur, these incidents that cause harms to patients are called Adverse Events (AE).[1]

In psychiatric care, patient safety is influenced by structural, therapeutic and care specificities. Regarding therapeutic specificities, the symptoms of the psychopathologies, for example, lead patients to behaviors such as isolation, aggressiveness, suicide, escape and reduced self-defense,[2,3] with a high risk of producing AE.

Another aspect that exerts an influence is the care model used. Currently, care is sought to overcome the classic psychiatric paradigm, in line with the Psychiatric Reform. However, hospital treatment in mental health maintains remnants of an excluding and stigmatized practice, in which the patient has no credibility and is "threatening and dangerous", as opposed to the patient safety perspective, which places patients at the center of the care provided.[4]

Within the scope of the Unified Health System, psychiatric hospitalization occurs in sectors such as emergencies and general hospital wards, public and private specialized institutions, and in Psychosocial Care Centers III, where there are beds for rest and permanence of patients with psychiatric disorders for a short period of time.[4] This scenario of psychiatric hospitalization is currently excluded from general studies on patient safety, a fact illustrated by a study that, by providing an overview of interventions aimed at reducing AE rates in hospitals, excluded surveys with a sample of psychiatric patients.[5]

A study that evaluated AE in Irish hospitals did not consider hospitalizations whose main diagnoses were related to Psychiatry.[6] Another research study that evaluated the incidence, nature and consequences of AE in Iranian hospitals suppressed the Mental Health specialty.[7] The above indicates the specificity of this field of knowledge that needs to be investigated. It is considered that, in psychiatric requirements, there is a complex interaction between the environment and the diagnosis that implies safety in mental health care settings.[2,8]

Patient safety in mental health services is an international priority and the productions show advances. The Australian mental health system, for example, focuses on risks and, therefore, has the patient's admission oriented to identifying risks to physical safety, such as suicide, self-mutilation, substance misuse or aggression. Other risks include sexual vulnerability and social isolation.[9]

In Canada, the creation of the Canadian Alliance on Mental Health (2006) and of the Mental Health Commission of Canada (2007) provided a comprehensive and collaborative approach to improving mental health care and policy, with investments in patient safety regarding mental health as a national priority.[2] In Brazil, research on patient safety in the psychiatric context is incipient, a fact reflected in the National Patient Safety Program, which does not address the specifics of psychiatric care.[1]

This diverse evidence from the literature added to the practical experiences brought to reflection the characteristics of the risks for AE in a psychiatric hospital. This is because AE involve economic and social costs, can cause harms to the patient[1] and are associated with prolongation of hospitalization time, which goes against the precepts of the Psychiatric Reform, according to which psychiatric hospitalization, when necessary, should be brief. The objective of this study was to describe the adverse events found in psychiatric hospitalization, analyzing them in the light of the theory of human error.

METHOD

An exploratory and qualitative research study, in which the patient safety framework was applied, which starts from the premise that human beings are fallible and that errors are expected, originating more due to systemic factors and not so much in human perversity. Therefore, the main question is to know why the defenses failed and not who made the mistake, in order to create barriers to avoid recurrence of the error. In this research we seek to analyze the characteristics of AE in an attempt to propose measures that strengthen patient safety in psychiatric care, avoiding recurrence of the failures that cause such AE.[10]

The scenario was a military psychiatric hospital in the city of Rio de Janeiro, which offers assistance to active and reserve military and their dependents and pensioners. The research locus was the hospitalization unit, which has 60 beds distributed in five subunits.

The institution has a Patient Safety Center (PSC), created in 2014 and comprised by a multidisciplinary patient care team. It has a Patient Safety Plan, which describes risk identification and monitoring actions. Even though it is a military institution, work is carried out based on a fair culture, where punishment of the professionals who make mistakes is not sought, but learning from incidents and improvement of the care processes. Likewise, transparency and comprehensive care are sought for the patients and families involved.

During the data collection period, the health team had 104 professionals, distributed among the care units, outpatient and administrative activities and day hospital. The participants were 15 professionals from the multiprofessional team working in the hospitalization unit, selected by the following inclusion criterion: being performing care activities in the hospitalization unit. The exclusion criterion was having less than six months of experience in the unit, a time considered minimum for adaptation to the care practices of the sector.

The empirical sample consisted of four nurses, two nursing technicians, two psychiatrists, a general practitioner, a physical educator, a music therapist, a dentist, a nutritionist, a pharmacist and an occupational therapist. The professionals were invited through a direct approach in the sector, with explanation of the research objectives and guarantee of confidentiality and non-interference in the work activities. At least one professional from each area was recruited, with the objective of striking a balance

across the professional categories and, thus, better understanding of all the AE dimensions.

The empirical saturation criterion was adopted, which considers that the data obtained are sufficient to understand the phenomenon, regardless of the possibility of adding new elements.[11] In this sense, there was an analytical immersion of the researcher in the data, enabling the analysis of its content in terms of density in understanding the study phenomenon. Thus, in the 15th interview, it was concluded that the data obtained reflected the multiple dimensions of the phenomenon, therefore being sufficient to apprehend the research object, verifying the saturation point.

The data were collected through semi-structured interviews carried out immediately after working hours, outside the work sector, but inside the institution, from the second half of February until the end of May 2018. To this end, a semi-structured instrument was applied containing a part for the participants' professional characterization and another with open questions about the following: characteristics of the care provided; experiences related to AE in psychiatric hospitalization; specificities of patient safety in the psychiatric scenario; evaluation of patient safety in the institution; and suggestions for improvement.

A pilot test was conducted, which caused adjustments and the addition of another question to the instrument. The interviews were conducted by the main researcher, responsible for the elaboration of the research protocol. Two digital recorders and a notebook for non-verbal expressions were used, for the record.

The interviews were transcribed in full and constituted a single *corpus*, which was reviewed and processed by the *"Analyse Lexicale par Contexte d'un Ensemble de Segments de Texte"* (ALCESTE) computer program, version 2010, in the standard parameterization. Each interview was equivalent to an Initial Context Unit (ICU), separated by command lines formed by the participants' characterization variables. These variables were crossed with the participant's discursive production, separating for analysis those that focused on this production. The software performed a lexical analysis of the words from the text set and grouped the semantic roots, defining classes of words according to their occurrence and co-occurrence in the text. For each class, it added a list of characteristic words, which had an associative strength between themselves and their class measured by the Chi-square Test (Phi). The classes reveal lexical worlds that bring up traces of meaning about what the speaker enunciates and confer rationality to their speech, the theoretical precept of the program applied in the interpretation of the classes obtained.

The corpus originated three lexical classes. In this article, the analysis indicator provided by the program used to deepen the data was the Descending Hierarchical Classification (DHC). The internal dynamics of the class was analyzed by studying the typical lexicons and their presence in the Elementary Context Units (ECU), text fragments characteristic of each class, as well as the interclass dynamics of the corpus, through lexical approximations and distances.

The research was approved by the Research Ethics Committee of the local institution under opinion No. 2,386,363/2017 on November 17th, 2017. The participants signed the Free and Informed Consent Form and anonymity was guaranteed through the coding made by the software used in the data analysis, in which ECU = Elementary Context Unit and Ind = Individual, followed by the Arabic number representing the order in which the participant was recruited.

RESULTS

The ALCESTE software reduced the words of the *corpus* to their roots, originating 412 analyzable words. After analyzing the vocabulary, the text was divided and classified, with a final utilization rate of 84%. These analytical procedures resulted in three stable classes, divided into two thematic blocks, as shown in Figure 1, which refers to the DHC. The three lexical worlds were as follows: Class 1, which represented 66% of the corpus and consisted of 94 analyzable words, which refers to errors and risks for AE; Class 2, which accounted for 22% of the corpus and presented 64 words, dealing with environmental factors that exert an influence on the AE; and Class 3, with 12% and 59 words analyzed, on the symptoms of the psychopathologies.

Errors and risks for AE in the psychiatric hospitalization unit

The most representative words from Class 1 evidence that one of the most common errors made by the professionals in the psychiatric hospitalization unit is related to management of the medications, as indicated by lexicons "dose/dosage", "medications" and "prescription/prescriptions". This is because there are prescription failures by the medical team, an error that worries the team regarding prescription of the correct dose of the drug and analysis of the possibility of drug interactions.

> *There are medical errors in the medications. (Ind 14, ECU No. 341)*
>
> *When it is a patient that I hospitalized, I also usually modify the prescription due to the patient's first reaction, with withdrawal of the medication in case of an adverse event, or with dose reduction in case of any adverse event. (Ind 15, ECU No. 365).*
>
> *I think it is lack of sensitivity from us to the patients' comorbidities. I think glaucoma. Hypertension and diabetes we still ask and, as psychiatric medications don't interact much with this, there are not so many adverse events there, but with glaucoma there is a lot of error. (Ind 14, ECU No. 350).*

In the psychiatric setting, polypharmacy and the use of psychotropic drugs are part of the therapy, as they assist in the control of acute symptoms. Therefore, there is a risk for adverse drug reactions, such as extrapyramidal reactions and dosage

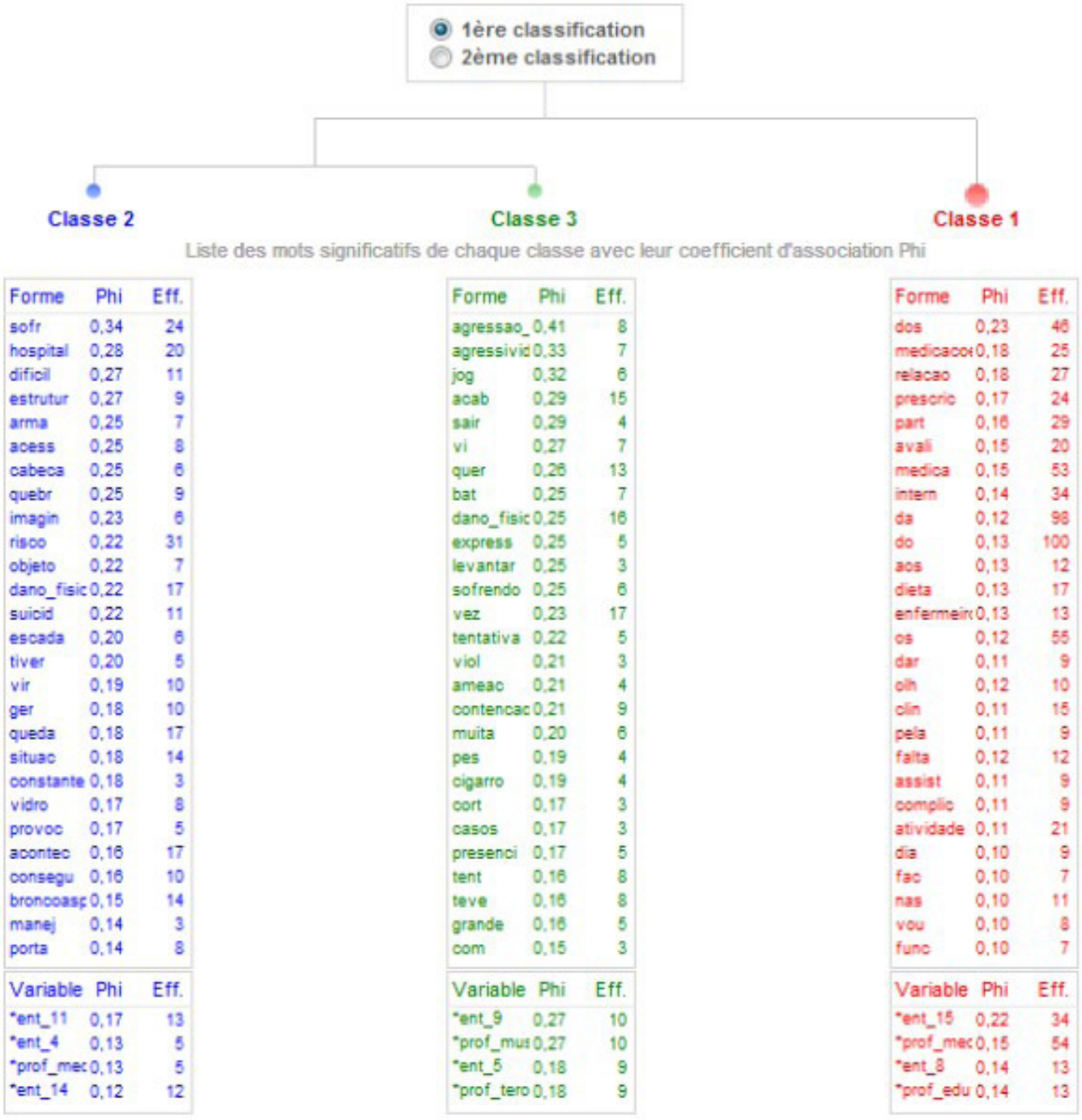

Figure 1. DHC Dendrogram.
Source: Detailed report from Alceste.

errors that can lead to impregnation, aspects highlighted by the health team regarding AE.

> *These AE are a reality. A paradoxical reaction also with the use of benzodiazepine, which is a medication widely used in our clinical practice. (Ind 15, ECU No. 373).*

> *Impregnation. It has events that are characteristic of some psychotropics. (Ind 7, ECU No. 153).*

> *There are some responses they have to psychotropic drugs, the extrapyramidal effects, which is only in Psychiatry, because there is a response to this group of medications. (Ind 7, ECU No. 152).*

The professionals' concern also refers to the possible monitoring failures by the team after administering the drugs. The importance of multiprofessional cooperation is recognized, especially in nursing, in terms of monitoring the effects of medications for the prevention of AE, as indicated by the nurse, watch, evaluate/evaluation radicals.

> *The flow of medication dispensation needs to be improved. Evaluate the presence of some adverse effects. The question of supervision by the Nursing team arises, whether the patient is responding well to medication (...). I think that in Psychiatry there should be more people watching, more supervision. And the interaction between them. It is more the supervision in the units, it has to be better than in the other hospitals, that the patient is bedridden. (Ind 7, ECU No. 154 and No. 153).*

The professionals' reports on the need for educational activities for the prevention of AE indicate that there are other errors made by the professionals of the psychiatric hospitalization unit, which refer to diet and mechanical restraints.

> *I made a manual that is even available for the catering services for when there are doubts they may use it in the practice. Even so, errors occur. Now I'm with a new team and again I'm going to lead some training on the types of diet. (Ind 10, ECU No. 227).*
>
> *There is a situation that sometimes someone is with mechanical restraints in a way that we know is not being the best form of restraint. (Ind 14, ECU No. 341).*

Environmental factors in the occurrence of AE in the psychiatric hospitalization unit

The words most associated with Class 2 were related to aspects of the environment that exert a direct impact on patient safety, and should be a constant attention target of the health team, namely: suffer, hospital, difficult, structure, weapon and access. Thus, the professionals reported that the patient's access to possible "weapons" made possible by the hospital's physical structure and furniture, together with the symptomatological manifestations of the psychopathologies, can generate physical aggression and suicide attempts that represent risks to the patients' safety.

> *What confers safety in the psychiatric unit is a space with as few objects as possible, everything can become a weapon against him. (Ind 14, ECU No. 343).*
>
> *The patient who is in a crisis is unable to do it. You have to take extra care because he can get a pencil and if he has a risk for suicide, scissors, then have to take care of the scissors that you will use. (Ind 5, ECU No. 109).*
>
> *So I think that you always have to see the structure, if he needs to access this ladder, if there's someone supervising, helping (...) places with unevenness, at the time of sedation or disorganization he can trip and fall. (Ind 11, ECU No. 268).*
>
> *It bothers in the psychiatric hospital when the patient is in need of IV medication, that serum support, for the risk of aggression, turns into a very easy weapon. (Ind 14, ECU No. 355)*
>
> *In the unit itself there are things that do not confer patient safety, glass doors for example, because, in an evasion attempt, it is a door that can break and injure. (Ind 1, ECU No. 15).*
>
> *Suicide attempt yes, the patient has already tried to take advantage of the environment, sometimes having something that favors the suicide attempt, then having some hook, something inside the unit, inside the room and wanting to roll the sheet. (Ind 11, ECU No. 242).*

The ECU above indicate that the hospitalization unit environment can be determinant in the occurrence of harms to the patient in the presence of suicide attempts and physical aggression. Among the objects that can turn into weapons in the ward there are glass, serum supports, scissors and pencils. The lexicons that signal this are suicide, object, break, physical damage and weapon. Another aspect mentioned for the prevention of AE that needs improvement was the disposition of the Nursing station, as it needs to allow good visualization of the beds to ensure a more effective observation and protection actions regarding the patients.

> *The rooms could be in sight or close to the Nursing position, the Nursing position must be centralized, structural issues. (Ind 1, ECU No. 15).*

AE related to the manifestations of the psychopathologies

It is verified that the ECU presented in Class 2 have associations with this Class 3 since, among the symptomatological and behavioral manifestations of the psychopathologies is the patients' aggressiveness, a manifestation that can causes them to throw some object found in the environment. This is seen by the prominent words in the class: physical aggression, aggression and the "throw" radical.

> *I've already seen a hand injury, wanting to play with a lot of intensity. It is common to hit the other, play the instrument or play very aggressively. (Ind 9, ECU No. 176).*
>
> *I've already had a patient who got nervous and started wanting to break things, ends up causing injury, hitting, etc. (Ind 13, ECU No. 307).*

> *There's a patient who self-harms. When he can't express what he wants and ends up being aggressive, throwing things and hitting others. (Ind 9, ECU No. 182).*

It is possible that treatment of the psychiatric symptoms results in adverse effects of psychotropic drugs, which include dizziness, tremors and drowsiness, as well as they increase the risk for falls. The ECU show that falls are also related to disorganized behavior, psychomotor agitation and mechanical restraint, the lexicon highlighted in the class.

> *The risk for falls in Psychiatry goes according to the effect of the medication, the patient sometimes comes in an aggressive way, when the medication begins to take effect, leaves him a little more sedated under risk for falls. (Ind 13, ECU No. 314).*
>
> *The patients sometimes try to really assault and end up suffering injuries, end up falling at the time of mechanical restraint, I've also already seen it. The patient, at the time of mechanical restraint, trying to get out and ends up suffering some injury. (Ind 11, ECU No. 238).*

Emphasis was placed on the susceptibility of hospitalized psychiatric patients to undergo bronchoaspiration due to sedation and anxious, hyperactive or compulsive behaviors when feeding, causing them to eat the meal in a dangerous way.

> *I've already had a situation here in the hospital that the patient underwent bronchoaspiration with a loaf of bread, because the Nursing team perhaps has not offered the right care (...) he bronchoaspirated with the bread and needed intubation and mechanical ventilation, and was transferred to the hospital. (Ind 2, ECU No. 34).*
>
> *A patient who bronchoaspirated with the bread, he had a fast-paced behavior at the time of eating, it was something that we always had to watch for him to eat more slowly, in one of those the patient ended up having bronchoaspiration with the bread. (Ind 13, ECU No. 309).*

DISCUSSION

The results showed that a type of AE that occurs in psychiatric hospitalization is adverse drug events, which can be preventable or non-preventable. Those that are preventable are the result of medication errors, understood as events that occur when weaknesses in the medication systems related to infrastructure or to human factors affect the practices of drug prescription, transcription, dispensation, preparation, administration and monitoring.[12]

Those that are non-preventable are the adverse drug reactions, which refer to a harmful and undesirable effect that occurs in doses normally used in humans for prophylaxis, diagnosis, treatment of morbidities or for the modification of the physiological function.[13] In view of such concepts, occurrence of medication errors and adverse reactions was evidenced in the study.

Medication errors have been identified in a number of research studies conducted in psychiatric hospitals. In one of them, the intention was to investigate the causes for drug administration errors affecting patients admitted to mental health services in northwestern England. The nurses and mental health students studied described 26 errors, such as slip-ups, memory lapses and mistakes, related to a complexity of active and latent conditions, such as the following: the task of administering medications, the medications used, the health team, interruptions, communication problems, team distribution, skill level, etc.[14]

In the research study in question, the errors were related to the dosage prescribed and to the presence of drug interactions, which resulted in harms, such as impregnation. Drug interaction is conceptualized by different authors as the change in the pharmacological effects between two or more medications administered concomitantly resulting in an increase or reduction in therapeutic efficacy or in adverse events caused by them, or in the onset of new effects.[15]

In the case of psychiatric treatment, psychotropic polypharmacy (concomitant use of five or more medications) is common, which increases predisposition to the occurrence of such interactions. This concomitant use has been frequent to induce sedation, calm the patient down, potentiate effects, or due to the presence of comorbidities or other medical conditions. However, it carries with it potential risks for drug interactions and harms to the patient, especially in aged individuals, where degeneration and disorders of organs and organic systems, with consequent alteration of the medications' pharmacokinetics, increase the risks for AE.[15-17]

An example of such risks is seen in a study that estimated the frequency and characteristics of drug interactions between controlled psychotropic drugs dispensed in a Brazilian public pharmacy, where 824 prescriptions were evaluated, of which 30.6% were made by a psychiatrist. At least one interaction was identified in 642 prescriptions (77.9%). A total of 54 different interactions were detected, 34 of which were severe, mainly Fluoxetine with Amitriptyline.[18] In the research study of the Psychiatric Emergency service of a general hospital conducted in 725 patient records, the most frequent interaction was between Haloperidol and Promethazine, with 17.7% of the 1,537 drug pairs analyzed, with predominance of the interaction between Benzodiazepines + Antipsychotics.[17]

In relation to the adverse reactions, particularly the extrapyramidal reactions pointed out by the respondents, reactions such as tremors, muscle stiffness, excessive sleepiness/sedation, akathisia and decreased motor coordination, among others, are reported. They are very common in the use of neuroleptics and affect up to 85% of the patients, generating distress and difficulty in compliance.[19]

The relevance of these adverse reactions caused by the psychotropic drugs can be seen in a community-based study that described the prevalence and factors associated with adverse drug events in Brazil. The overall prevalence was 6.6% and the

events were more reported in the following drugs: Fluoxetine, Diclofenac and Amitriptyline.[20]

From the safety perspective, active failures are unsafe actions by people in direct contact with the patient and latent conditions are inevitable in the system and relate to the managerial decisions. Unlike active failures, latent conditions can be identified and corrected before an AE occurs. This understanding enables proactive rather than reactive risk management.[10] From this perspective, in the light of the results presented, it is verified that the multiple psychotropic drugs used in the treatment of psychopathologies have a high risk of favoring AE or adverse reactions due to medication errors in the prescription phase.

Therefore, it is considered that there are failures in the risk management process of the medication system, with repercussions on the active failures by the professionals regarding the frequent and cautious evaluation of drugs, dosage analysis, survey of comorbidities, possibility of drug interactions and, in addition, proactive surveillance of manifestations different from the expected therapeutic result. Another latent failure is the team's training level, according to reports of the need for training. By understanding this dynamics of the occurrence of AE, it is possible to devise safety systems that anticipate recurrence of the errors and establish mechanisms for their interception before they reach the patient.[10]

In relation to the Nursing work, its duties are planning the schedules and preparation and administration of the medications, and its performance constitutes a barrier for preventing such active failures from reaching the patient. In this sense, nurses develop competences based on professional autonomy in the management of medications, on the scientific and technical knowledge acquired, and on their professional responsibilities.

This includes the evaluation of dosage inconsistencies in the prescription; active communication with the team; evaluation of drug schedules and the possibilities of drug interactions and supervision of the preparation, administration and evaluation of the response to the medicinal products administered. This performance requires improvements in qualification, which can be done through activities such as lectures, courses and theoretical classes.[21]

Regarding the environmental factors and the risk for AE related to the symptoms of the psychopathologies, the harms were caused by self- and hetero-aggression, a result congruent with a systematic review that synthesized 367 articles on patient safety in a mental health environment. The evidence with the highest density was called "Interpersonal Violence", which accounted for 116 studies, most of them focused on the study of violent and aggressive behaviors.[22]

Psychiatric patients may come to manifest aggressiveness in psychiatric urgency and emergency situations where there is a thought disorder, whether emotional or behavioral that implies risk of death or injury to the patient or to third parties, requiring immediate therapeutic intervention by a trained multiprofessional team and according to well-established guidelines.[23,24] It is worth mentioning that psychiatric hospitalization takes place in plural devices, such as the ward in a general hospital, which possibly lacks specialized environment and professionals, which praises the relevance of in-service training in this situation, especially of the Nursing team, which remains in the scenario of care integrally.

A person is considered aggressive if they verbalize aggressive words or offenses, swear words or threats of aggression, or they kick doors or furniture, throw objects, destroy property, throw themselves against people or walls or physically harms others or themselves in a premeditated, impulsive (or reactive) way or as a result of a medical (or psychotic) condition.[23] This may arise from thought or mood disorders, low tolerance to frustration and deficient impulse control, among others. The patient exhibits excessive motor activity and a subjective experience of tension, which is related to provocative speech, muscle tension, hyperactivity, impatience and distrust.[24]

Physical restraint followed by mechanical means is usually used in managing aggressiveness, accompanied by the pharmacological approach, where sedation is no longer considered the main objective, but rather calming the patient down.[24] Thus, the team should be attentive to the administration of excess psycholeptic drugs due to the risk of impregnation in the patient due to dosage errors, as indicated by the respondents.

Another AE mentioned in the results was falls, both related to chemical and mechanical restraint. In a review of the literature on falls in psychiatric patients from 57 articles, one of the pieces of evidence surveyed was that of risk factors for falls in this clientele, among which is the use of psychotropic drugs, particularly benzodiazepines, antidepressants and antipsychotics, which exert an influence on postural balance.[25] Another point that increases the risk for falls is the chaotic behavior of psychiatric patients hospitalized due to psychotic symptoms and concomitant chronic diseases.[26]

Although mechanical restraint has been controversial in the midst of the psychiatric reform, they are a practice still proposed to reduce the consequences of severe psychopathologies. It is a technique most often performed without the patient's consent and, if not applied with criteria and technical care, it presents risk of asphyxia, aspiration, skin injury, dehydration, acute renal failure, venous thrombosis, traumatic psychological effects and risk for aggression by other patients.[24]

One of the respondents pointed out an error in the execution of this technique. A study conducted in Finland indicated that mechanical restraint occurred 2,113 times in 106 wards in 2017, with 3.21 episodes per 1,000 hospitalization days and 38.8 episodes per 100,000 inhabitants. The mean duration was almost 17 hours and the patients spent 2.25 hours per 1,000 hospital hours (0.23% of the hospitalization days) mechanically restrained.[27]

In view of the characteristics of the AE related to the psychiatric patient's clinic, from the safety perspective, it is necessary to prevent them; therefore, it implies analyzing not only the individual practice, but also the context of the work and of the institution that can be a precursor of unsafe actions and the target of interventions.[10] In the individual sphere, it is necessary to understand that aggressive behavior represents a symptom, devoid of a personal nature. In this sense, for the prevention of

violent behaviors in people with mental disorders, it is fundamental to adapt the health professionals' behavior, who should adopt an empathic and welcoming attitude, with speech adequacy and gentle movements, avoiding confrontational attitudes.[28]

From the perspective of the health team under study, intensive observation by Nursing in the psychiatric hospitalization scenario contributes to preventing this type of AE in the patients. In this aspect, it is highlighted that, historically, surveillance and control are essential properties of the psychiatric hospital. In modernity, as pointed out by the interviewees, while Nursing provides 24-hour care to the patient, it is attributed greater participation in patient observation, although it is a common duty of the entire mental health team. The role of Nursing in the psychosocial care model is comprehensive care, which allows it to perceive patients in their individuality, establishing and strengthening therapeutic bonds.[29] In hospital mental health care, psychosocial interventions have integrated initiatives to overcome excessively medicalized care, focusing on restrictive measures.[30]

Therefore, patient observation should not be disciplinary surveillance, characteristic of the asylum model, but rather the ability to better understand the patients' conditions, especially cognitive, sensory-perceptive and behavioral changes that put their and/or others' physical integrity at risk and demand planning to minimize it.

Therefore, it is important to carefully assess each patient's psychiatric state, with an interdisciplinary discussion, in order to detect the actual possibilities for the occurrence of AE related to physical aggression and suicide attempts. In this understanding, a barrier to AE is knowledge of the patients, their clinical case and a relevant care plan.

From the assessment of the risk for self- or hetero-aggression, attention must be paid to the environmental factors. This control should not be implemented by simply suspending the patients' access to objects, ending their autonomy, as they also have the right to a therapeutic environment. After all, furniture and other items in the environment can be suitable for their pathological condition.

At this point, the data point to failures in the work context that exert an influence on AE, demanding investments for improvements in health facilities, whether in infrastructure for better patient monitoring by the team, as is the case of the Nursing station, or in adequacy of the furniture to prevent the patient from getting injured with objects that become weapons, strengthening the defense systems in relation to the environmental risks.

Finally, the use of fundamental care measures, techniques and technologies by psychiatric nurses is highlighted. As for the fundamental care measures, the starting point is the premise that they must be based on an approach centered on the subjects and on their way of being, seeking to approach patients with psychiatric disorders through their internal availability, with the elaboration of a therapeutic project that respects their specificities and choices and bets on social life.

Regarding the techniques, there is mechanical restraint, which should be applied as the last choice to prevent physical harms to patients in crisis. Mastery of its use deserves attention from managers for patient safety. As for the technologies, the incorporation of instruments to assess the risk of falls for psychiatric patients is highlighted to strengthen the patient safety culture and enable interventions to prevent falls and their consequent harms.

FINAL CONSIDERATIONS AND IMPLICATIONS FOR THE PRACTICE

The data subsidize actions for strengthening the safety systems in psychiatric hospitalization environments, which should mitigate AE due to medications, falls, harms from restraints, bronchoaspiration and bodily harms due to aggressiveness. The proposals include the incorporation of process and product technologies, such as warning systems in the computerized prescription, specific scores for the assessment of the risk for falls, use of simulation in the training of the techniques, interdisciplinary programs for social inclusion and prevention of aggressiveness, and environmental restructuring.

From the safety policy point of view, the results contribute to reflecting about the concept of patient safety in Psychiatry since, in this specialized area, harms are also related to the specificities of psychopathologies with repercussions in the patients' aggressive behaviors. From this perspective, although such directed at oneself and to the others can be prevented by the professionals, it is recognized that there is also certain unpredictability inherent to these conditions, whose resulting harms are not necessarily associated with health care.

The study limitations are related to the methodological choice of investigating the health team, which limited the number of possible participants in some categories. This restricted the final number of participants due to the need to strike a balance across the categories, thus reducing the data scope.

AUTHOR'S CONTRIBUTIONS

Study design. Izabella de Góes Maciel Tavares Campelo, Maria Angélica de Almeida Peres, Rafael Celestino da Silva.

Data acquisition. Izabella de Góes Maciel Tavares Campelo.

Data analysis and interpretation of the results. Izabella de Góes Maciel Tavares Campelo, Maria Angélica de Almeida Peres, Rafael Celestino da Silva.

Writing and critical review of the manuscript. Izabella de Góes Maciel Tavares Campelo, Maria Angélica de Almeida Peres, Rafael Celestino da Silva.

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