

# Education for culture of patient safety: Implications to professional training

*Educação para cultura da segurança do paciente: Implicações para a formação profissional*

*Educación para la cultura de seguridad del paciente: Implicaciones para la formación*

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## ABSTRACT

**Objective:** To know the strategies adopted for the construction of patient safety culture from the perspective of health professionals. **Methods:** A qualitative exploratory case study, held with 23 health professionals that work in a public teaching hospital, between August and December of 2010, conducted through semi-structured interviews and thematic analysis supported by QSR NVivo software. **Results:** From the analysis emerged two categories - Construction of patient safety culture; and Education for patient safety - which addressed from the health professionals' perspective the need to learn from mistakes, the importance of teamwork, invest in continuing education and curriculum changes in training courses. **Conclusion:** The acknowledgement of mistakes, the strengthening of teamwork, stimulus to continuing education and cross integration of the theme in professional training are strategies to build patient safety culture.

**Keywords:** Patient safety; Continuing education; Teaching; Health professionals.

## RESUMO

**Objetivo:** Conhecer as estratégias adotadas para a construção da cultura da segurança do paciente na perspectiva dos profissionais da saúde. **Métodos:** Estudo de caso qualitativo exploratório, realizado com 23 profissionais da saúde que atuam em hospital público de ensino, entre agosto e dezembro de 2010, por meio de entrevistas semiestruturadas e análise temática com apoio do software QSR NVivo. **Resultados:** Da análise emergiram duas categorias - Construção da cultura da segurança do paciente e Educação para a segurança do paciente - as quais abordaram na perspectiva dos profissionais de saúde a necessidade de aprender com os erros, trabalhar em equipe, investir em educação permanente e em mudanças curriculares nos cursos de formação. **Conclusão:** O reconhecimento dos erros, o fortalecimento do trabalho em equipe, o estímulo à educação permanente e a inserção transversal do tema na formação profissional são estratégias para a construção da cultura da segurança do paciente.

**Palavras-chave:** Segurança do paciente; Educação permanente; Ensino; Profissionais da saúde.

## RESUMEN

**Objetivo:** Conocer las estrategias adoptadas para la construcción de la cultura de seguridad del paciente desde la perspectiva de los profesionales de salud. **Métodos:** Estudio de caso cualitativo, exploratorio, realizado entre agosto y diciembre de 2010. Participaron 23 profesionales que trabajaban en un hospital público de enseñanza. Se han ejecutado entrevistas semiestruturadas y análisis temático con el apoyo del software QSR NVivo. **Resultados:** Emergieron dos categorías - Construcción de la cultura de seguridad del paciente; y Educación para la seguridad del paciente - que abordan la necesidad de aprender con los errores, la importancia del trabajo en equipo, de invertir en educación continua y en un plan de estudios de los cambios en los cursos de formación. **Conclusión:** El reconocimiento de los errores, el fortalecimiento del equipo, el estímulo de la educación continua y la integración transversal en la formación son estrategias para la construcción de la cultura de seguridad del paciente.

**Palabras clave:** Seguridad del paciente; Educación continua; Enseñanza; Profesionales de salud.

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## INTRODUCTION

The field of patient safety has completed more than a decade since the publication<sup>1</sup> that leveraged the discussion of the theme and several achievements have been reached in that time interval. Investments in research on patient safety and quality of care have greatly increased, and the theme had global projection. Initially, professionals worked the subject in isolation with minimal contact with the healthcare team. However, it was found that most errors and failures in health were related to the communication process and teamwork, being necessary to strengthen these important pillars of care. From this, it was possible to sensitize professionals to new arrangements in the team and encourage the ability to analyze their work, which can cause a change in the patient safety culture<sup>2</sup>.

In this context, the World Health Organization (WHO) mobilized towards the issues of patient safety and quality of healthcare from 2002, at the World Health Assembly. In 2004, was created the first edition of the World Alliance for Patient Safety, which turned to the making and the development of policies and practices in support of patient safety to all WHO member countries<sup>3</sup>.

In this way, actions have been undertaken to raise awareness and evaluation of security situations. However, it is also necessary to understand better, obtain evidence and knowledge in a collective way about patient safety, in addition to promoting and supporting the development of the theme on health services<sup>3</sup>. Furthermore, the magnitude of this problem highlights the importance of developing proactive attitudes towards safety. The transformations begin to have effect and result from changes in practice, which need to happen in the short term<sup>4</sup>.

In Brazil, nursing has assumed the role of precursor in discussions about patient safety, particularly in studies involving medication errors. These surveys, being from the core of nursing, address various stages of that process and the results include other actors, such as pharmacists, doctors, pharmacy technicians, among others<sup>5</sup>.

The Brazilian Network of Nursing and Patient Safety ("REBRAENSP") is a collaborative network, linked to the Pan American Health Organization (PAHO) and WHO for the development of nursing. The REBRAENSP promotes the theme in Brazil since 2008 and has collaborated to the leading role of nursing in the construction of safe and quality care in health attention<sup>4</sup>.

The health team, and specifically the nursing team, has a huge responsibility in the prevention of complications caused by adverse events in healthcare practice, which are part of the health area's daily routine<sup>6</sup>. However, health professionals are still little orientated in their training to work as instruments to deal with errors, mainly because these are associated with feelings of inadequacy, guilt, shame and limited scientific knowledge. In addition, there is the fear of legal, ethical and social punishments that characterizes the professional not prepared for safe care.

The first step to prevent the error in health is to admit that it is possible and is present in care. From this, health professionals need to understand the types of adverse events, their causes, consequences and contributing factors. The notification and registration of adverse events serve subsidies for critical analysis and decision-making, which aims to eliminate, prevent and reduce those circumstances of daily health care<sup>7</sup>.

In addition to the notifications, some teaching strategies can be used, including the Permanent Health Education (PHE), as well as the insertion of the theme in the training of professionals. As for PHE, it is understood as an essential proposal for change in work and their relationships in the industry, which could be a place of critical performance, reflective, purposeful, committed and technically competent. This is a medium and long-term goal to qualify attention by questioning patient safety<sup>8</sup>.

Education for patient safety is a WHO recommendation, which suggests the inclusion of the theme in the curricular grids of all courses of the health area. An important aspect is that in this area the future professionals are prepared to get it right, because from the premise that the work will be free of errors, incorporating the notion that to error is something unacceptable. This aspect needs to be reviewed urgently in health education. Patient safety needs to be problematized and discussed seriously and responsibly, being essential to train future professionals for the prevention of adverse events and develop in them a culture of patient safety.

In this sense, the culture of patient safety can be understood by different frames of reference, in this study is defined as a value, attitude, rule, beliefs, practices, policies and behaviors of staff, institution, health professionals and the patient, replacing the guilt and the punishment for the opportunity to learn from failures and improve healthcare. From that understanding, the health team should be guided by a commitment emanating from the health facility guidelines, in which each member and the group as a whole follow the same standards/safety protocols with shared responsibilities<sup>9</sup>.

It is noticed that the health care context adds numerous cultural issues, especially in the hospital environment, which can interfere with patient safety such as: hierarchy of positions, the medical professional extolling, focus centered on the disease, individual mistakes, punishment of professionals, hiding of care failures, inadequate or outdated practices, among others. Building partnerships and commitments is shown as a way to stimulate the development of a safety culture in the institutions<sup>3</sup>.

It is necessary to change the current view of the failures involved in the process of care and insert this fundament in the debate themes of everyday services and also in the training of professionals. The culture of patient safety must be incorporated and stimulated in organizations as an essential foundation for safety healthcare and the development of best the practices in the assistance<sup>5</sup>. The patients and their families need to be secure when seeking assistance in the health service and professionals can be facilitators of this security through the adoption of better practices.

Based on the above, the guiding question of this study was: what are the strategies used by health professionals to build the patient safety culture? And as objective to know the strategies adopted for the construction of patient safety culture from the perspective of health professionals.

## METHODS

Exploratory study with a qualitative approach<sup>10</sup> of the type case study, which is pertinent to contemporary phenomena investigations inserted in contexts of real lives, when there is little or no control over the events<sup>11</sup>. The studied case were the circumstances of care in pediatric patient hospitalization units referred to the doctoral thesis, whose results were published in 2012<sup>12</sup>. It was conducted in Pediatric Hospitalization Units of a Public, General and Teaching Hospital in southern Brazil, between August and December of 2010.

Study participants were 23 health professionals, including: doctors, medical residents, nurses, nurse residents, nursing technicians. The choice of these categories is due to the characteristic that these professionals are usually more present in the care of hospitalized children. Inclusion criteria were: medical professionals, nurses and nursing technicians with more than six months of work experience in Pediatrics. Exclusion criteria refers to professionals who were out of work in the data collection period.

Individual interviews were held in the room next to the hospitalization units, ensuring privacy of participants. Conducted through a semi-structured script which featured issues related to strategies adopted by professionals for the guarantee of the construction of patient safety culture and educational activities that could work together to spread the subject in the searched institution. It was considered the ending of the collection of the information from the criterion of empirical and theoretical data saturation<sup>10</sup>.

The data were operationalized by the thematic content analysis in three stages that enable the understanding of the phenomenon studied: Pre-Analysis, Material Exploration and Processing of Obtained Results and Interpretation<sup>10</sup>. It was used the QSR NVivo software, version 7.0, as a tool for organizing information.

For the purpose of preserving the anonymity of the participants, these were coded by letters, followed by numeric digits, representing the order in which they were interviewed. The letter P was adopted for health professionals. Thus, it means P1 as health professional 01, and similarly until the number 23.

The study followed the Guidelines and Regulatory Standards for Research in Human Beings, of Resolution 196/1996 of the National Health Council, effective at the time, and it was approved by the Research Ethics Committee of the Hospital de Clínicas de Porto Alegre under the number 100085. The participants signed an Informed Consent in two counterparts.

## RESULTS AND DISCUSSION

The analysis of the information made it possible to know the strategies adopted in from the perspective of the health

professionals for a change of patient safety culture. It were identified two thematic categories called: construction of patient safety culture and education for patient safety.

These categories have address the importance of the error as a source of teaching, of teamwork, research consumption, the move to a care model guided by integrity, the continuing education and curriculum changes in training courses for health professionals.

### Construction of patient safety culture

Study participants highlighted the recognition and identification of errors as an important step for the development of a safety culture in the pediatric hospitalization units. Making of the mistake a source of teaching and warning was a conception present in the statements:

*We have the freedom to talk and detect the proper error and correct it [...] But there are cultural differences in people trying to hide their mistake in order to not undermine themselves. We are policing ourselves a lot here [...] even the good professional misses. Not because you made a mistake, you are a professional bad, a bad person. We say that only those who work make mistakes, who does not work does not make mistakes. (P23)*

*If we do something wrong or we see another colleague doing something wrong, that people can accept that there is a limitation and that this can happen, but at the same time be able to continue from the mistake happened because persisting in error does not contribute with anything. (P16)*

The ability to accept the possibility of an adverse event to materialize is one of the first actions to be taken by health professionals who want to develop into a culture for the safety of hospitalized children. Participants emphasized that admitting the failure is an attitude encouraged and stimulated in the research institution, mainly to prevent hiding and denial of the team in face of a caring condition which produces an adverse event.

The error communication and its notification are considered positive attitudes and important for the development of a safety culture. As adverse events are registered, there will be more chance to correct and prevent its recurrence<sup>13</sup>. Therefore, it is imperative that the presence of a non-punitive culture in which a systemic approach to error is applied<sup>14</sup>.

In this sense, the conception of the error as something collective can demonstrate a breakthrough in cultural change, being exposed by one of the participants:

*You must see that the error is not only individual. It can happen, we as a team should try to sit down and talk more about it, what you think you might have been different? [...] I was wrong to not do this, to do a different exercise. We only stop to think about it when it happens, a person after an error is very sad, it is a pain. (P23)*

The health team should pursue this co-responsibility among its members, so the interdisciplinary work proposes such understanding. The culture of patient safety aims at a practice transformation in understanding what work in the health team is and what is the core of its activity.

As all health professionals improve the idea of collective responsibility it will be possible to move towards a patient safety culture. In this sense, it was identified that in order to promote patient safety it is needed to promote a good relationship and cooperation in the team, with unity, respect and motivation<sup>15</sup>.

Therefore, the teamwork is a prerequisite for patient safety. The participants stressed that the attention and the union of health professionals, have the same interests, enhance patient safety.

*As we work as a team, everyone has to be aware. (P5)*  
*I consider it quite safe, because we work with a multidisciplinary team. So on several levels we can detect problems and act on these issues, even if something pass by medical prescription, it arrives at the pharmacist who is a highly qualified professional, which normally evaluates and tells us to look back [...] In level of care, we also have the same job with the nursing staff, with psychology team, social service team [...]. (P16)*

By involving cultural issues, patient safety is not an individual problem, nor a single professional category. However, it corresponds to a transformation process at the institutional level, with their managers and also with the Brazilian health system.

The multidisciplinary team of health workers, when they can carry out their activities in an interdisciplinary way, is acting in the interests of patient safety. The formation and development of professionals, combined with a close relationship to the patient, are potential to secure attention<sup>16</sup>.

Professionals are familiar with innovations in their field of knowledge, and this is a favorable aspect so that patient safety is an object of study, in a way that we can understand the characteristics and peculiarities of this phenomenon. The participants agree with this understanding:

*Anyway, that you update yourself you will be protecting your patient. [...] You can look at this issue in different ways, and all will result in patient care. I think that discussing this subject, speak and expose to the entire multidisciplinary team, the role that belongs to each one on the measures of protection and safety of the child [...]. (P6)*  
*It is an evolutionary and individual thing, but it needs to be said. So, I think training, talk to the person, speak, insist, and the people, even if not identified the error, they can say "Did you see that?" and go ahead. You have to resume and never let the error be perpetuated; it is the worst thing that can happen in the work [...]. (P16)*

The consumption of the surveys can be a second step towards a patient safety culture. It is recommended that health professionals be influenced by curiosity and share with the health team the questions about the circumstances of promoting care of adverse events.

The WHO indicates that research on this theme are recommended, since the number of losses to health care<sup>3</sup>. Health and teaching institutions could direct their researches to find evidence about the systemic failures that threaten the care of their patients<sup>13</sup>.

The patient safety culture brings many conceptual changes and practices to the health area. One of them is linked to the implementation of the biomedical model that values the biological rather than the human being. Hospitalized children can be often perceived as a mere object of intervention for health professionals. However, despite studies and programmatic guidelines that show the importance of comprehensive care, the child needs to be seen and treated in its singular dimension of a developing human being. Study participants share that it is required another methodology of health care for the hospitalized child, as described in the reports:

*I perceive that medicine is very interventionist, too much examination, little conversation, little physical exam, little clinical and laboratory examination. I am going against this paradigm that is exam, medication [...] there are things that have to be examined, have to be done here, it has to be now, but whenever possible we have to give discharge, minimally treat or not treat. (P17)*  
*It is not just deliver the baby to mother to care, I think I have to get over there, look, see all that is happening and how this mother is [...]. Sometimes they [companions] are kind of impatient annoyed with the babies, and you have to intervene too, we ask for calm, to go for a walk, relax [...]. You have to take care of the family and the baby as a whole. (P9)*

Study participants explained that the care of hospitalized children must include the companion/caregiver as a service user. Moreover, it is essential to include lightweight technologies such as hosting, active listening, touch, playfulness, humanization, among other devices for the care of the patient.

However, these attributes are not yet sufficiently discussed and incorporated in the health units, since its inclusion is still a characteristic of each professional. To change this practice, it is necessary to emphasize the need to rethink the traditional model of healthcare for hospitalized children and adolescents, strengthening the humanization of assistance<sup>17</sup>. Still is considered necessary to include in the curriculum discussions about humanization and users' rights in health services, both related to patient safety.

In this sense, it is emphasized that changing the care model for the comprehensiveness is a need for the development of a user safety culture in healthcare services. Therefore, the field

of education translates as one of interfaces able to develop strategies for safety culture.

### Education for patient safety

The professionals who participated in this study expressed a traditional view of the teaching/learning process, being the in-service training and the continuing education the most mentioned strategies for deployment of a safety culture. The participants still discussed the need for changes in the training of the health professional and the reformulation of the curricular structure of undergraduate and medical/multidisciplinary residency programs.

The in-service training through lectures, theoretical courses and classes are educational possibilities suggested by respondents to present the issue of patient safety. They add that the training is a method for professional qualification and content review, and may also be a way of preparing the companion/caregiver for sharing the care with the health team.

*Security is very similar to training. I think that the more trained you are, the safer you became and more aware of your actions. (P3)*

*I think there should be made more lectures on these cares, both with the team and the family members [...]. I think we need more lectures talking about it, guiding more, right? I think it could be very interesting. (P12)*

*From time to time, I think there must be a recycling, a feedback of techniques of medication administration, on child care in the hospital, I think from time to time there should be a training. When you work for a long time with people in the same function, in the same things, it becomes an automated thing and then, maybe, you do not pay attention to what you are doing [...]. (P13)*

It is evident in the speeches the need for changes in the pedagogical project of healthcare practices. Currently, active methods of teaching/learning process have been shown favorable and effective in the training of health professionals. The permanent health education is a strategy that has been implemented in the research institution, enabling the theoretical-practical perspective, the redesign of the fundamentals and concepts of health professionals focused on patient safety culture.

The circles of conversations are already results of these transformations that have been taking place in the institution, with the introduction of PHE as teaching methodology for health professionals. Participants exposed that to share experiences related to the error of collectively, can be productive for the development of a safety culture among health professionals.

*I see something that works well here at the hospital which are the circles of conversation. I think talking to everybody, that each has their experience, to bring what is wrong*

*with the unit, what is wrong on the day, in the hospital, I think this is an important action. [...] Courses showing wrong things, different and straightening the unit. (P11)*

*The professional has to improve itself, learned a little more, lets join the team and talk when an error occurs. For example, show that this happened, share the experiences, feelings, what could have been done differently? [...] But I think we should talk more [...]. (P23)*

The permanent education in health encourages the diversification of strategies to share knowledge and experiences from the working world. The health professional who discusses and accepts the possibility of occurrence of adverse events is progressing to a culture of patient safety.

It is therefore suggested the inclusion of the patient safety theme through conversation circles, causing health professionals to reflect on their practice and conduct, and to promote greater integration of teams in support of hospitalized children. The conversation can be one of the first steps for the development of a patient safety culture, because it is perceived as a way to encourage professionals to talk about the errors arising from their professional expertise<sup>12</sup>.

In a teaching hospital in Porto Alegre there was an increase of the rates of adherence to the verification of the patient identification after the implementation of educational strategies, which included production and distribution of a video, posters and brochures, as well as courses in online education modality. Such activities have contributed to improving the routine and consolidation of practices, enabling the strengthening of patient safety in the institution<sup>18</sup>.

The training of health professionals is another point to be discussed for the construction of a patient safety culture. Participants reported that this issue is still not addressed in professional training, whether in undergraduate, whether in medical/multidisciplinary residency programs and when addressed it is in a brief manner without in-depth critical reflections.

It is believed that this topic should be transversal in the curricula of health professionals. However, for it to be built all disciplines should address the subject and the teachers involved seek specific knowledge of their area of expertise.

*I think this has to be provided before, right? Since our training as doctors, because you have to be there already with concern for the safety and care of child protection and adult, and then ... Anyway, on the residence I think we need to have a little more of these basic care [...]. (P15)*

Currently the training of professionals in the health area have been rethought and reformulated by the new National Curriculum Guidelines for undergraduate courses. These changes aim to readjust the proposals for teaching/learning to the demands and the needs of the health sector, users and society. The theoretical

and practical framework of the patient safety should be included in the curricular chronogram, being object of the training of health professionals. However, perhaps there is a lack of teachers prepared to problematize this issue with future professionals.

The PHE pedagogical aesthetic is to insert the experience of questioning and the invention of problems in health education. This attractive offer is a condition for the development of intelligence of listening, caring practices, engaged knowledge and permeability to the users<sup>19</sup>.

Patient safety could be a cross-cutting theme in the healthcare of the child. This requires equipping professionals to explore the dynamics of systems, configurations, habits, standards, processes and peculiarities in order to develop analytical and critical skills on their practices, otherwise the traditional models of learning will be maintained<sup>20</sup>. The WHO launched in 2011 a study guide to patient safety for multi-professional schools with guidelines and recommendations for teachers, and suggestions of topics for the reformulation of curricula. The document covers issues related to team communication, to evidence-based practice, the teamwork, the bioethics of medical errors, the safe handling, among others<sup>21</sup>.

A participant criticized the training of healthcare workers, especially medical training, emphasizing that currently training is still strongly centered on scientific knowledge, with little or non-concern for the individual who has a disease, that leads patient away, losing the main role, being a mere object of intervention and experimentation. This participant commented that the coexistence and the rapprochement with the user result in meaningful experiences for professional training.

*This should go through an entire reformulation of training. [...] They are not doctors, not nurses, are junior apprentices, then they come with the bias of the research. The research is steeped in technology. I tell them "you are not graduating in Medicine, you are researchers, technicians, medic is another thing." [...] I think the focus of the training is perverted. [...] The professional does not have to be a reservoir of information, must have basic information and be trained, which can only be to the extent of what that the individual experiences in real-world situations. There is no use in speaking of adverse event if the researcher is not experiencing it with the patient [...]. (P17)*

The knowledge acquired by health professionals today focus on scientific evidence proven experimentally, rarely clinically tested, which culminates in repulsion of the patient and their family. In the context of children hospitalized, for many health professionals all therapeutic process is focused on exams and advanced procedures, with minimal contact, for example, between patient, companion /caregiver and medical assistant.

This way of taking care of children is attended by the student, who reproduces it. Learning, in this context, does not present significant circumstances for the student because he is trained

to produce health by copying a preset model. This view is also visible in other health professions, not exclusive of the doctor.

The transformations in the training of health professionals should be produced together, being essential to qualify the dialogue between the health and education institutions while providing the involvement of the patient and society for the discussion of the patient safety theme<sup>22</sup>. The interactions between the segments of training, attention, management and social control in health should enhance local characteristics and the installed capacities, stimulate the development of the potential of each reality, implement meaningful learning and critical capacity, effectively and creatively<sup>19</sup>.

The direct and permanent supervision is an essential requirement for the health professional in the process of perfecting. A participant pointed out that many residents do not have the guidance and monitoring needed to ensure a safe care. These limitations are present in all the health professions, in a way that the student is exposed to the world of work, without proper preparation to meet all the demands that are required.

*I think the first thing is the point that we are together with the resident. [...] They [residents] are learning and I think they do not need to learn making a mistake, we have to detect errors before they happen, because they affect patients and we need to preserve life. [...] I see many residents without supervision, and they do, in fact, things that at first are completely wrong and could be readjusted, but they learn erring. [...] (P22)*

Learning from the mistakes is not a consistent strategy with the development of a patient safety culture. It is essential to introduce the prevention of adverse events and the risk management in the training and supervision of health professionals in improvement programs. Student supervision is a complex activity and provided with responsibilities for the professional who assists the student, because it will serve as a model for the professional future. This, in turn, can follow exactly the mentor's recommendations and care strategies. It is believed that the preceptor of residency programs have great responsibility in training and improvement of other professionals, with conditions to contextualize the culture of patient safety for the professional apprentice.

A study conducted at a university at São Paulo found that medical and nursing students realize the error as consequence of human life, but they believe in the possibility of prevention, based on the adoption of measures and system change<sup>22</sup>. The same students consider that the analysis of the error must be systemic, being healthcare progressively more developed in dynamic and specialized environments where there are complex interactions between infrastructure, teams, pathologies, processes and procedures<sup>23</sup>.

Patient safety incidents are considered sources of learning for everyone involved. However, there are already several evidences punctuating the main causes and contributing factors

related to adverse events, which can serve as subsidy for the teaching/learning process of future professionals and serve as practical examples for teachers in the formulation of problems for teaching activities.

## CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

This research showed strategies identified by health professionals for the construction of the patient safety culture. They are: error identification and reporting, with consequent learning process of its occurrence; conception of the collective mistake and the importance of teamwork; consumption and production of research as subsidies for implement cultural changes in institutions; transposition of the biomedical model for comprehensive care; continuing education for insertion of the theme in the daily work; and insertion of patient safety as a crosscutting theme in the training of health professionals, disseminating it in all contexts.

Thus, it can be inferred that the patient safety culture should be incorporated in the health institutions in a more underlying and systemic way, enabling the guarantee of the security of patients and the development of best practices in health. Another important aspect is the incorporation of this issue during the academic training of professionals so that it can modify the current situation in which health practices accumulate risks and enhance failures. It is expected the incorporation of safety culture since the beginning of the training process in which the student recognizes the mistakes, learn from them and report on their occurrence in a transparent manner.

The data from this research allow affirming that the development of a safety culture is not an easy job. On the contrary, it takes time to assimilate changes ranging from the simplest to the most complex, as well as the challenges to sensitize professionals in their daily practice. In addition, it will require from the subjects a constant feeling of team/collective since the attitudes of individual blaming are not able to bring about the necessary changes, and may also mask information or make some incidents not even being notified. Still, errors in health care are not voluntary or individual attitudes; they are related to a context and development of assistive process that needs to be rethought.

One of the conditions for the development of patient safety culture is teamwork and both will require health professionals to incorporate and enhance the idea of collective and shared responsibility. Still, with regard to the team, the Health Institutions need to review their PHE strategies because the theoretical training through lectures and conferences, do not represent the best strategy to ensure the training of professionals based on knowledge. In most situations, teachers lack dynamic attitudes and active methodologies that may involve the professionals in a most significant form and committed with the future social assumed on the role of caregivers.

It is essential to reflect on the relationship between the occurrence of errors in the training of health professionals and

the pedagogical model adopted by educational institutions. The establishment of the patient safety culture brings with it the need to transpose the biomedical model of biological appreciation over the human. Still, it is necessary to think of the integrality of attention in health. Several respondents reported that during their training they did not have contact with the subject of patient safety and this allows to recognize a failure related to training in health, since this matter should be transverse to the undergraduate curricula.

It is confirmed that recognizing and admitting that mistakes and failures are fundamental aspects covered in education for patient safety culture. These attitudes can contribute to the early identification of the error and decision-making, preventing the camouflage and denial of the teams, as well as developing strategies for prevention and recurrence of the identified and documented inadequacies.

It is noteworthy that the implementation of a safety culture runs through multiple instances of an institution and needs the involvement and commitment from the central administration to the support services. The maturation of this systemic and procedural view is one of the challenges for the construction of this culture in healthcare scenarios.

It is pondered that the study had as main limitations those relating to methodological design, which does not aim to generalize the results. It adds up also the specificity related to the participation of health professionals inserted exclusively in the context of pediatric hospitalization. Nevertheless, the issues relevant to education for a culture of patient safety may apply in other contexts of care.

Thus, it is recommended to future studies that problematize the issue with other workers and users of institutions that foster the construction of safety culture in its strategic planning and institutional philosophy.

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