USE OF QUALITY MANAGEMENT TOOLS FOCUSING ON THE SAFETY OF THE NEONATAL PATIENT

ABSTRACT

Objective: to analyze the use of quality management tools focused on patient safety. Method: a descriptive study with a qualitative approach, developed in the Neonatal Intensive Care Units in private hospitals that are accredited excellence in Belo Horizonte/MG. Data collection was conducted through semi-structured interviews with 25 health team professionals, and the data was subjected to critical discourse analysis. Results: the findings showed potential and fragility of professionals in the use of quality tools focused on patient safety. Conclusion: the respondents are aware of the tools, but have difficulty in applying them in practice, restructuring work processes for the incorporation of tools focused on the continuous improvement of quality and safe care is required. Descriptors: Quality of Health Care; Quality Control; Health Services; Patient Safety.

RESUMO

Objetivo: analisar o uso das ferramentas de gestão da qualidade com foco na segurança do paciente. Método: estudo descritivo, com abordagem qualitativa, desenvolvido em duas Unidades de Terapia Intensiva Neonatais de hospitais privados acreditados em excelência de Belo Horizonte/MG. A coleta de dados foi realizada por meio de entrevistas semiestruturadas com 25 profissionais da equipe de saúde, e os dados foram submetidos à análise crítica de discurso. Resultados: os achados mostraram potencialidades e fragilidade dos profissionais quanto à utilização das ferramentas de qualidade com foco na segurança do paciente. Conclusão: os entrevistados têm conhecimento das ferramentas, porém, apresentam dificuldade em aplicá-las na prática, sendo necessária uma reestruturação nos processos de trabalho para a incorporação das ferramentas, com foco na melhoria contínua da qualidade e cuidado seguro. Descriptores: Qualidade da Assistência à Saúde; Controle de Qualidade; Serviços de Saúde; Segurança do Paciente.
INTRODUCTION

In contemporary times, studies and discussions on safety and quality of care, have become frequent due to the exponential growth of incidents in the hospital. The hospital incorporates in its structure features of the organizational and bureaucratic model common to companies bringing together the principles and notions of efficiency, productivity, competence, total quality, customer, product, performance and excellence, encouraging more and more work teams that manage health practices and seek the Hospitalar Accreditation process.1,2

The publication of the Institute of Medicine (IOM) report, To Err is Human: Building a Safer Health Care System in the late 90s, demonstrated from the relevant studies analysis, the high rate of incidents in hospitals, often caused by human error, making evident the need to rethink the care models used in order to ensure patient safety and quality of care.3

The definitions about the quality concept are many, however, in the health sector, the quality of care relies on the evaluation of three dimensions derived from the work of Donabedian, understood by structure (conditions to which the care is provided), process (as the activity is performed) and result (if the appropriate results have been achieved).4-6

It is noteworthy that the care of the quality concept has been changing over time and since 2001 the IOM has included the term patient safety. However, it is emphasized that the pursuit of quality in patient care is not only the guarantee of a safe care as it involves other dimensions such as access, effectiveness, patient centeredness, among others. Thus, health systems that seek to reduce to a minimum the risk of harm to the patient are aiming to increase the quality of their services. However, the reverse is not always true, it is possible to establish quality improvement activities with no impact on the patient’s safety.4-6

Quality should also be understood as an evaluation parameter of the operation of health services in order to investigate, establish and improve work processes, as well as to foster the development of higher standards and insurance services. While aiming to provide accurate information about the health practices, it contributes directly in the selection and (re) development of health strategies and decision-making of subjects involved.4-8

In this perspective, the quality tools emerge as a relevant tool for assessing the work processes, above all, to achieve quality and safety in health services. There are numerous tools that can be used in the implementation and quality management consolidation focused on safety, among them, the PDCA cycle (Plan, Do, Check, Act), process management, clinical protocols, health indicators the check sheet, the Action Plan, risk management, among others.7,8

When seeking care safety, on 1 April 2013, by Article 5 of the No. 529 Order, the Ministry of Health has defined strategies for implementation of the “National Patient Safety” seeking to ensure the safety and quality of health care as a right of the citizen. This document also emphasizes the improvement and organizational learning, engagement of professionals and patients in preventing incidents focused on safety, avoiding individual accountability processes.7

In the context of management for quality and accreditation process, attention was called to the Neonatal Intensive Care Unit (NICU) since patients are susceptible to serious adverse events arising from own health conditions. A study of 15 NICUs showed that adverse events represent a 74% incident rate and 56% of these could be avoided.9

Thus, patient safety becomes an important issue and a major challenge for health professionals. It is believed that, through a management focused on safety and quality of care, the Intensive Care Unit can offer better results, considering the clinical conditions and the complexity of patients, obtaining acceptable rates of complications arising from procedures performed.

The incorporation of management tools such as systematic and effective practices in the NICU can provide information about the multi-professional team work process, enabling the definition of intervention strategies and pursuit of quality care and safety, without disregarding the peculiarities of organizations. Furthermore, the assessment of quality of care based on quality methods and tools should be part of the health team work routine in search of improvement of management models and patient safety.8,10

Although management tools represent a promising strategy to improve the quality of care, implementation and use are often faced with challenges and problems in health facilities. Some of the challenges can be justified by the lack of definition of roles for the team, as the extent of success in the use of tools depends necessarily on the strong involvement of professionals who are on the front line of services.3
There are different ways to use the management tools for health professionals that directly affect care and patient safety. The experience and creativity of professionals, experienced the reality of the scenario, participation and attitude of the multidisciplinary team, among other factors, may suggest different ways to use the tools, aiming beyond certifications, safe care and quality.

Although the hospital accreditation is presented for many managers as an ideology of legitimated quality and structured by rules and regulations, health workers, as a key element of this process should be especially valued in relation to the discourse of daily practices with the use of management tools and not only for the prescribed structures. It is noteworthy that the National Accreditation Organization (NAO) Manual, as well as management tools, which are structures, should not be rejected but must be reinterpreted according to the daily context of development of services by the professional staff.

This analysis can provide the health team reflections on ways of using the management tools in the practice of hospital accreditation, as well as offering support for the reasoning of the decision-making processes involved in problem solving and the changes to be adopted in care practice in NICUs, formalizing action strategies and driving innovations in healthcare. Thus, this study aims to:

- Analyze the use of quality management tools focused on patient safety.

**METHOD**

A descriptive study of qualitative approach, developed in the Neonatal Intensive Care Units in the city of Belo Horizonte, Minas Gerais. The choice of qualitative research allowed to deal with issues that go beyond the quantitative data, in addition to considering the subjectivity, complexity and dynamics of the phenomenon.

As methodological guidance opted for the approach of a critical discourse analysis, taking the quality benchmark in health and patient safety as a theoretical model for analysis because the interpretive movement inserted in the speeches allows us to reveal what is hidden, and understand how different discursive formations connect and produce new meanings. Thus, this method was considered more suitable to the type of study that proposed to analyze in depth, involving discourse practices in relation to the experience of health professionals with the use of quality tools with a focus on patient safety.

This study was developed in two NICUs private hospitals and accredited a level of excellence, meeting the criteria of safety, integrated management and management excellence. To maintain the anonymity of the Neonatal Intensive Care sectors and hospitals, the scenarios have received the names A and B.

Scenario A, The study is characterized by a NICU / Pediatric in a pioneer hospital in three level hospital accreditation (management excellence) methodology by the National Accreditation Organization (NAO). Scenario B is an ICU of a Midsize private hospital Opened in 2004 with a view to be a reference of quality in service for all hospitals accredited in the network. In 2006, this hospital was accredited in level of excellence and since then holds the title.

The survey was conducted with professionals of the multidisciplinary team, among them doctors, nurses, nursing technicians, physical therapists, speech therapists and psychologists, totaling 25 professionals from both NICUs between the period from February to May 2014. As inclusion criteria, the subjects should be placed in service for at least one year.

They were elected for the purposes of this study, those subjects who have expressed interest in participating in the study. Thus, subjects were selected by convenience, inviting them in their own workplace, setting a schedule according to their availability and personal wishes. Data collection was conducted through semi-structured interviews, individual and conducted by a trained author of the study.

Data saturation criterion was used to define the sample, which means the suspension of adding new ones when there is data redundancy or submit repetition.

It is noteworthy that there were no refusals of professionals to participate in the survey or request termination of participation. To ensure a reliable record of all the information provided by respondents, the interviews were recorded and then transcribed and numbered according to the sequence in which they occurred using the acronyms E1, E2 and so on. Respondents of the Neonatal Intensive Care Unit received respectively the names EA and EB.

To guide the data analysis, we used the speech analysis technique based on the framework of Norman Fairclough, one of the theoreticians of the critical analysis of the most quoted speech and rescued in...
organizational studies. His theory presupposes the use of a three-dimensional diagram analysis, in which the analysis of the discursive event is based on the idea of simultaneously: textual dimension, which requires the analysis of the content, structure and meaning of the text; instance of discursive practice analysis, considering the meanings and beliefs; and instance of social practice, taking into account the context in which the speech was originated.13,14

The study was reviewed and approved by the Ethics Committee of Research in Human Beings of the Federal University of Minas Gerais - CAAE 05170203170-11 in accordance with the National Health Council Resolution 466/12 that discusses the guidelines and regulatory standards for research involving human beings of the Ministry of Health.15 It emphasized that the participation of the subjects of the survey was voluntary, and they were told about the possibility of withdrawal from participation at any time without any charge generated by themselves or employment institutions.

RESULTS AND DISCUSSION

The use of management tools with a focus on patient safety to ensure the achievement and the quality certification of maintenance, makes sense when they are immersed in the daily practices of professionals in the hospital setting. Continued use of management tools subsidizes daily practices committed to the improvement of results and ensuring safe care.

Based on such premises the subject of this study, of both units, indicates the need for process management as a methodology for evaluation, review and advance the performance of techniques that can be defined as a set of successive or parallel operations that provide well defined results or a result value to the customer.

All processes are mapped, then all we do is described and whatever the potential risk activity for that process, we have an action. (EB 1)

It’s like an X-ray, a photograph of the service that you have control of what is best for the patient […] you do not always come in a straight line, but you can afford to see their problems, their strengths and weaknesses […] it is an overview of the unit. (EB 15)

Other authors stated that the management process contributes to the structuring of the information system relating to the safety not only of the patient, but the environment in which it is inserted, promoting thus also risk reduction for family and professionals.5,9,15 EB15 testimony reinforced the theme when compared to management processes with imaging procedures such as radiography. The X-ray radiology is a procedure which corresponds to the area of medicine that uses X-rays for performing diagnosis, prevention and treatment of diseases. In turn, process management aims to diagnose the activities performed, prevents errors and treats possible problems detected, and seeks new ways of thinking and look at the reality experienced by health professionals.

It is believed, therefore, that process management is configured as a potential tool to minimize incidents caused to patients, especially by enabling the discovery of the weaknesses and strengths of work processes. However, there is no guarantee that it is na immune to errors tool, for people who participate in the work processes are subject to errors.4,15,16

Among the management processes applicable quality of care focused on patient safety, risk management has been considered a key instrument in relation to patient safety. The subjects considered the management processes of the most important tools for tracking actions and procedures and the consistency of monitoring, and prevention of adverse events on the uniqueness of each situation:

Risk management is individualized for each patient. You see what he has and what are the risks inherent in the hospital at that time. (EA17)

We have communication of pharmacovigilance events […] Everybody participates and cares about the best way to prevent and resolve the event. (EA 15)

The professional discourse is consistent with findings in other studies in which to risk prevention is essential to identify and analyze the source of the inserted event in the work process so that preventive actions can be systematized in a resolute manner and lasting action and not only point. Establishing systematic risk management can be an option for better control and monitoring results.5,10,16

It highlights the importance of using these process management tools, particularly with regard to the NICU, whose clients are highly fragile and receive invasive therapy, and are therefore more susceptible to iatrogenics. In this context, the reality of error prevention philosophy must be incorporated into all practices and stages of service, comprising among others the technical surveillance, pharmacovigilance, the hospital infection control, waste management and

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The risk management aims to provide security and quality of the process and establish a comprehensive assistance program to influence a new culture with regard to error, working it not to establish some kind of penalty, but generates learning for the multidisciplinary team. Consequently, the error was seen in a systematic view, in which the professional is part of a whole and the error is only a consequence of process failure. Therefore, this tool becomes essential to generate actions aimed at better care and patient safety.

It is noteworthy that the statements of the respondents of Unit B is reinforced the difficulty of applying and discussing the forms relating to risk management, especially because discussions regarding clinical conditions overlap discussions of strategies for prevention, care quality and elimination of errors.

We discuss adverse events at the time of shift changes [...] it is a tool that we have difficulty in applying, because we have to check the adverse event, and the proposal was that the clinical meeting with interdisciplinary staff, we identify the root cause and make interventions to the event. But since there are many boys and the meeting is already very extensive dealing only clinical things, we are having trouble making it work. It is a printed. What do you call it? I forgot the name. (EB 1)

It is clarified by the speeches of the subjects that although they consider it important, in practice, the risk management was not legitimated in the team's daily work and care practice, resulting in gaps in the process. There are difficulties to remember the name printed directed to quality issues, reinforcing the misunderstanding of risk management as a better performance tool of work processes. It remains a implicit misunderstanding of health professionals in the design of which is the quality management and the distancing of care quality concepts provided to the critical newborn.

Studies point towards the need to create a culture of risk management among professionals and patients at all stages of care, in addition to proposing that the multidisciplinary team participate in the monitoring committee of incidents. An American survey in intensive care units on monitoring committee of incidents, was possible to infer through EA 6 testimony, the interdisciplinary staff, we identify the root cause and make interventions to the event. But since there are many boys and the meeting is already very extensive dealing only clinical things, we are having trouble making it work. It is a printed. What do you call it? I forgot the name. (EB 1)

Another American study that portrayed on quality indicators contributed questioning the need to seek innovative strategies to ensure that professionals and students develop their skills, knowledge and attitudes that enable you to manage patient care safely and effectively.

Regarding the discourse of Unit A professionals, a risk management tool has been little mentioned and, when quoted, appeared only in the speeches of the sector leaders. Such a situation can be justified due to the centralization of functions in certain people, which carries little involvement led in the use of quality management tools. As risk management assistance tools, professionals in this unit had the care plan for the patient as a multidisciplinary work initiative and systematization of nursing care.

The plan has to be made in the morning. When it is rowded, it passes on until it gets to me, I am the night shift academic. These technicians are asking us to do it, because they have to sign it. (EA 3)

We have to read the care plan, because, sometimes, there are mistakes in this plan and sometimes, it is done first, copies the rest and it has nothing to do with the patient during his or her evolution, In the end the care plan becomes unnecessary. (EA 6)

Reading the testimonials reveals that the care plan, although it has been identified as a tool for risk management in practice inefficiency is evidenced by not presenting the dialogue between the various categories of health professionals about the real needs of each patient and its evolution. Moreover, it was possible to infer through EA 6 testimony, conducting a mechanized care practice, widespread and without reflection intended on the patient. It is possible that problems in communication between professionals reflect on a strong impact on the labor process, resulting in a higher probability of errors, which leads to critical thinking to confirm the
relationship of a safe practice to an effective clinic communication. 21

Another tool present in the speeches of the subjects of this research in both units was the effective monitoring of indicators for monitoring the quality of health service.

We collected the data. This is measured monthly, to see it it reached the goal or not, what we have to do in terms of na action plan so this can be improved and reach excellence. (EB 7)

Understanding indicators can be understood as the measurable characteristics of products, services, processes and procedures used by the hospital to evaluate and improve their performance, progress and improvement of care. 5,9 The professionals surveyed demonstrated the importance of indicators as tools to monitor control system efficiency, while the results will form the basis for implementing corrective actions and continuous improvement of quality. It highlights the excellence of indicators when they are monitored continuously, including monitoring trends and detecting deviations. Some authors confirm that the indicators allow comparison of institutions as regards the performance thereof, while the users of the service, on the other hand, we have the opportunity to choose between different service providers. 8-10

Indicators can also provide relevant insights into the workflow and potential challenges and alerts to a greater sense of team responsibility, which is positively related to the success of practice. 8,15 Thus, the indicators that monitor the quality of health have been increasingly required by the institutions and professionals for decision making based on evidence. It is noteworthy that the indicators do not provide definitive answers, but this indicates potential problems or good care practices.

From this perspective, health professionals reported that, to achieve health care excellence, the constant identification of factors involved in the work process is required:

It is very important that at the time of daily discussion of cases with the multidisciplinary team we establish that the event was that, what was the root cause, what can be done to avoid it, if you have a plan of action. (EB 15)

For individuals there is a need to understand the causes and effects of factors that intervene in the work process. The above statement also expressed the importance of clinical discussion of the multi-professional team in relation to the identification of the problem, the cause and action plan, components of the tool recognized as “herringbone” that can be used in search of care improvement. However, it notes that the recognition of these elements is limited to the prescribed one because the evidence demonstrates the absence of action in the service everyday. Thus, we perceive a gap between theory and practice, implying that the subjects did not appropriate the structure that has been established. Noteworthy is a study in Chile whose result indicates that a service with fewer errors can be achieved through changes in the method of organizing work process with fulfillment of what is prescribed in the rules and institutional routines, experience and more effective professional participation in health care activities. 12-13

In this perspective the professionals of the units A and B, signaled that the monitoring indicators and the realization of the action and the PDCA cycle plan are almost always under the responsibility of team coordination. Only then the data is passed on to employees through the view of the management framework, which aims to provide the necessary information in a simple and easy to assimilate way to a greater number of people simultaneously in a given area.

We have a view to the management framework with indicators, we get to know how it is. (EB 17)

The coordinator has a spreadsheet with all indicators and then she puts it reached or not the goal. [...] Then she puts together the action plan and then, yes, we come to fulfill this plan to try to improve this indicator. (EB 3)

The statements betray the use of PDCA tools, herringbone, evaluation of process indicators and results are linked to management position or limited to leadership, as it should integrate the daily lives of employees, in order to subsidize their activities for commitment to continuous improvement of results. In testimony EB 17 it is evident that the employee is aware of the indicators only when you view the management framework, when it is already ready and set, giving no opportunity for the team to reflect or discuss it. Regarding the testimony of EB 3, the situation raises weights because the respondents indicate that the coordinator is the person who has possession of the indicators, which assembles and evaluates and who gives the deserved importance to this data. In this context, the question arises as to why the importance of this tool for the rest of the team and how to deal with this information is not discussed.

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The truth is that the indicators are the result of a multidisciplinary team, not just coordination. It is noteworthy that the successful use of the tools is linked to the participation of all those involved in health practice and not just leaders.8,15

In terms of the complexity of health care, the involvement of multidisciplinary teams is essential throughout the process of implementing change initiatives and evaluation of the work process in order to improve the quality of care.5,6,8 A study that addressed the evolution of the factors involved in patient safety with a focus on the team pointed out that a good multi-professional performance may be crucial in the implementation of the work process and in search of work organization with minimal errors.24

Since the indicators and information is centralized in the areas of management, there is also the operating team performing in practice interventions planned by the coordinators, which shows the absence of participation of the performing class in the planning process and making decisions. Thus, there is a move away from that guy who evaluates and proposes actions in relation to that implementing the action plans and may result in failure of the intervention as a result of non-adherence to the proposal conceived by coordination. In this context, the speeches of organizations propose "a new division between those who speak and those who listen", a kind of resizing the Taylor principle of functional specialization, where some running (workers) and others plan (managers).

In international studies addressing the same subject, a gap between theory and practice in the use of quality indicators by the front-line staff in hospitals was perceived. Results showed that the leaders or experts are more involved with the indicators when compared with the professionals of direct assistance. Furthermore it was noted that the involvement and participation of the employees are associated with the success of quality improvement initiatives and best values of indicators.8,18 In the scenario of the Unit, it was possible to see professionals uninformed about the place it was in the indicator table, a situation that clearly expresses the distance of those with decision-making in the sector:

I have many indicators. Where am I getting my window frame? Good question. I think it's a secretariat. But the office is closed. (EA 1)

In EA 1 deposition, it denotes that the professionals seem to ignore and despise the management tool, recognizing that the instrument is not a priority because of other facts or events. Moreover, it appears that the view to the management tool can be difficult to assimilate by the professionals who did not participate in its preparation. Therefore, the view is simply not sufficient to prevent assimilation, and, consequently, to allocate the amount due. In this regard it assumes that the way in which professionals experience the accreditation process (and in this particular case, as they utilize the quality management tools in daily work), influences the rupture of an organizational culture, resulting or not on a support with quality and excellence in patient safety.

**FINAL CONSIDERATIONS**

From the discursive analysis of the professionals in both scenarios, it was concluded that the respondents are aware of the existence of quality management tools, however, do not recognize their due importance, and have difficulty in applying them in practice. This fact does not differ from reality in developed countries.

Through this study, it is evident that there is no “cake recipe” for health professionals using the quality management tools. We can not guarantee that a miraculous tool will ensure the success of quality and patient safety process. The important thing is to consider the relevant points and choose the path that most closely matches the reality of the institution, using tools that really add value to the performance of health professionals and the proposed objective. It is suggested that audit and feedback based on data indicators can be effective in changing health care and professional practice.

It is noteworthy also that the whole multidisciplinary team needs to feel protagonist and co-responsible before the appropriation and use of management tools in the quality process. Without the effective use of tools by professionals, it is likely that the work process becomes fragile structural point of view, organizational and evaluative, compromising the continuous improvement and patient safety. Thus, it is recommended that this management, with the aid of the tools is carried out by a multidisciplinary committee to systematize processes to identify all opportunities and threats and take advantage of the uncertainties and variabilities as apprenticeships.

The tools are important and relevant tools in the work process to achieve continuous improvement, when well used. Otherwise it would be just another expendable tool in daily
multidisciplinary team without any effect. That is, the quality and patient safety should be priorities in neonatal care in the intensive care unit and not a health marketing.

The limitation of the study was the incorporation of quantitative methodologies that could measure the use of search management tools of security by the multidisciplinary team. But he recognized that there was a lack of studies that explore the subjective aspects of the subjects being the focus given in this manuscript. Thus, further studies are needed in order to improve the knowledge and use of quality management tools by health professionals focused on neonatal patient safety.

REFERENCES


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