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Neonatal intensive care nursing practice in the resuscitation of preterm infants in the Obstetric Center

Prática do enfermeiro intensivista neonatal na reanimação de prematuros em Centro Obstétrico

Práctica del enfermero intensivista neonatal en la reanimación de prematuros en el ámbito del Centro Obstétrico

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ABSTRACT

Objective: to analyze the practice of the Neonatal Intensive Care Unit nurse in the context of the resuscitation of preterm infants in the Obstetric Center. **Method:** descriptive study with a qualitative approach, conducted between December 2022 and January 2023 in the Obstetric Center of a public hospital in Vitória (ES, Brazil). Fifteen Neonatal Intensive Care Unit nurses were interviewed. Thematic analysis was performed. **Results:** the following thematic categories emerged: "Assessment and recognition of the vitality of the preterm infant by the neonatal nurse"; "The training of the neonatal nurse and the limitations during the resuscitation of the preterm infant in the Obstetric Center"; and "The challenges encountered: infrastructure, material resources, and human resources". **Final considerations:** the neonatal nurse is qualified to perform resuscitation of the preterm infant; however, their practice is limited when working in the Obstetric Center, as they are unable to participate in all stages. The potential of the neonatal nurse may be underused due to the work process established by the service.
Descriptors: Neonatal Nursing; Delivery Rooms; Intensive Care Units, Neonatal; Infant, Premature; Cardiopulmonary Resuscitation.

RESUMO

Objetivo: analisar a prática do enfermeiro da Unidade de Terapia Intensiva Neonatal no contexto da reanimação de prematuros no Centro Obstétrico. **Método:** estudo descritivo, com abordagem qualitativa, realizado entre dezembro de 2022 e janeiro de 2023, no Centro Obstétrico de um hospital público de Vitória (ES, Brasil). Foram entrevistados 15 enfermeiros da Unidade de Terapia Intensiva Neonatal. Realizada análise temática. **Resultados:** emergiram as categorias temáticas: "Avaliação e reconhecimento da vitalidade do prematuro pelo enfermeiro neonatal", "A capacitação do enfermeiro neonatal e as limitações durante a reanimação do prematuro no Centro Obstétrico" e "Os desafios encontrados: infraestrutura, recursos materiais e humanos". **Considerações finais:** o enfermeiro neonatal possui qualificação para reanimação do prematuro, porém fica limitado em sua prática quando atua no Centro Obstétrico, porque não consegue participar de todas as etapas. O potencial do enfermeiro neonatal pode ser pouco explorado devido ao processo de trabalho instituído pelo serviço.
Descritores: Enfermagem Neonatal; Centro Obstétrico; Unidade de Terapia Intensiva Neonatal; Recém-Nascido Prematuro; Reanimação Cardiopulmonar.

RESUMEN

Objetivo: analizar la práctica del enfermero de la Unidad de Cuidados Intensivos Neonatales en el contexto de la reanimación de prematuros en el Centro Obstétrico. **Método:** estudio descriptivo, con enfoque cualitativo, realizado entre diciembre de 2022 y enero de 2023 en el Centro Obstétrico de un hospital público de Vitória (ES, Brasil). Se entrevistó a 15 enfermeros de la Unidad de Cuidados Intensivos Neonatales. Se llevó a cabo un análisis temático. **Resultados:** surgieron las siguientes categorías temáticas: "Evaluación y reconocimiento de la vitalidad del prematuro por el enfermero neonatal", "La capacitación del enfermero neonatal y las limitaciones durante la reanimación del prematuro en el Centro Obstétrico" y "Los desafíos encontrados: infraestructura, recursos materiales y humanos". **Consideraciones finales:** el enfermero neonatal posee la capacitación para la reanimación del prematuro; sin embargo, su práctica se ve limitada cuando actúa en el Centro Obstétrico, ya que no logra participar en todas las etapas. El potencial del enfermero neonatal puede verse poco aprovechado debido al proceso de trabajo establecido por el servicio.
Descriptores: Enfermería Neonatal; Salas de Parto; Unidades de Cuidado Intensivo Neonatal; Recién Nacido Prematuro; Reanimación Cardiopulmonar.

INTRODUCTION

Preterm newborns (PTNB) constitute the group of neonates who are born before completing a gestational age of 37 weeks, and many require assistance regarding the spontaneity of respiratory and cardiovascular functions, since the transition from the intrauterine to the extrauterine environment represents an adaptive challenge for this group of neonates[1]. Data indicate that approximately 1 in 100 preterm infants requires cardiopulmonary resuscitation[2].

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The management of the preterm infant in the first minutes of life is capable of bringing repercussions for their health in the short, medium, and long term. In order for the transition to extrauterine life to occur successfully, some actions must be performed during the reception of the preterm infant, especially those who have less than 34 weeks, when the need for positive pressure ventilation (PPV) and other resuscitation maneuvers in the delivery room is frequent[3].

It is noteworthy that when this preterm infant is born with good vitality, the umbilical cord is clamped at 30 seconds and they are protected with a transparent bag, a plastic cap, and another cotton cap to prevent hypothermia. When the infant is not born with good vitality, the professional must perform immediate cord clamping, protect the body with a plastic bag, and take them to the heated crib to continue the resuscitation maneuvers. These interventions are known worldwide and seek to maintain the newborn's body temperature and stabilize breathing and heart rate to reduce neonatal morbidity and mortality[1].

Given the instability of the preterm infant, the prior preparation of the healthcare provider (physician and nurse) regarding training and skill for resuscitation procedures becomes essential[4]. Studies conducted in Kenya and eastern Ethiopia demonstrated effectiveness during neonatal resuscitation when midwives and nurses showed adequate knowledge and training[5].

In Brazil, only the physician, preferably a neonatologist, and the nurse, preferably an obstetric or neonatal specialist, are trained to perform neonatal resuscitation[6]. In this regard, the *Sociedade Brasileira de Pediatria* (SBP) recommends that the reception of the newborn must always include trained healthcare providers to receive them, help with the transition to the extrauterine environment, and, whenever necessary, perform neonatal resuscitation[1]. Therefore, the nurse not being a specialist in the area, having deficits in training, and not being up-to-date can impair the quality of care[7], and may trigger additional problems, such as difficulty in assisting the neonate in their adaptation[8,9], since this situation requires rapid thinking and assessment from the nurse and indicates an emergency context.

In practice, not all nurses who work in delivery rooms are up-to-date or have experience to participate in neonatal resuscitation. Accordingly, the transfer of nurses from the NICU (Neonatal Intensive Care Unit) to the Obstetric Center may be a strategy used in some hospitals. Consequently, the following question arose: What is the practice of the Neonatal Intensive Care Unit nurse in the resuscitation of preterm infants in the Obstetric Center?

Given the importance of the theme, participation, and responsibility of the nurse in the resuscitation of the preterm infant, the objective is to analyze the practice of the Neonatal Intensive Care Unit nurse in the context of the resuscitation of preterm infants in the Obstetric Center.

METHOD

This is a descriptive study with a qualitative approach, based on the understanding that the nursing practice in neonatal resuscitation in the study setting could not be quantified. The Consolidated Criteria for Reporting Qualitative Research (COREQ)[10] guide was used as a support instrument.

The study was conducted in a general hospital located in Vitória, Espírito Santo, Brazil, in the Neonatal Intensive Care Unit (NICU), where the study participants work. The NICU has 10 beds and generally provides care for preterm infants and for infants with other clinical and surgical conditions, primarily those born in this hospital. The other beds in the Neonatal Unit are semi-intensive (10 beds) and kangaroo care (5 beds). Accordingly, the Neonatal Unit has a total of 25 beds, and the nursing team is composed of 4 nursing assistants, 47 nursing technicians, and 30 nurses who work on varied schedules and who must reorganize the work process when a colleague leaves the NICU to attend to the critical neonate in the Obstetric Center.

Study participants were 15 neonatal nurses, on day and night NICU shifts and who work in neonatal resuscitation in the Obstetric Center whenever necessary. As an inclusion criterion, the participant must have routinely worked in neonatal resuscitation in the Obstetric Center, considering their potential contribution to the study. Therefore, neonatal nurses with less than one year of experience in the study setting, as well as those temporarily assigned to the sector, were excluded. The participants were identified by the letter "E" for interviewee, followed by the interview sequence number (E1, E2, etc.).

The sample was defined based on theoretical saturation, considering that from the eleventh interview onward, the responses became repetitive, and four additional interviews were collected to reinforce the perception of saturation[10,11].

Data were collected by a trained researcher between December 2022 and January 2023. The participants were contacted personally to determine their interest in participating in the study as volunteers, always at the end of the morning

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and afternoon, in order to collect data from nurses on all work shifts (day service and night service). Once they agreed and indicated availability, each participant was taken to the meeting room next to the unit, where the Informed Consent Form was read, doubts were clarified, and the form was signed. There were no refusals.

Next, the participant characterization form was completed, containing information such as sex, age, work shift, training, and time of training in neonatal resuscitation, when applicable. The individual interview technique was conducted in the presence of only the researcher, using a semi-structured interview guide containing questions on the topic of neonatal resuscitation.

The first interview was used to validate the questions in the guide (internal validation). This step aimed to avoid ambiguous interpretations and variation in responses, as well as to avoid compromising methodological rigor. Since no adjustments to the instrument were deemed necessary, the first interview was included in the final sample. The interviews were recorded in MP4 format and lasted a mean of 10 minutes, and were subsequently stored on a personal computer.

The analysis was thematic[12], following the steps of pre-analysis, exploration of the material, treatment of the results obtained, and interpretation. In the pre-analysis, the interviews were transcribed within 48h and the material was read freely; the aim was also to understand and interpret the material and organize initial ideas. The constitution of the textual corpus, corresponding to all data obtained, was analyzed, and it was verified that the material covered the nursing practice in the context of the resuscitation of the preterm infant, fulfilling the qualitative validity criteria of exhaustiveness, representativeness, and homogeneity required for this type of analysis.

In the exploration of the material, the link established between the assertions and the participants' statements regarding their role in the resuscitation of the preterm infant was sought. In relation to the treatment and interpretation of the results obtained, emphasis was placed on the information obtained through inferences and the interpretation of the material. The presentation of the results was organized according to the analysis of the empirical material and highlighted the following thematic categories: "Assessment and recognition of the vitality of the preterm infant by the neonatal nurse"; "The training of the neonatal nurse and the limitations during the resuscitation of the preterm infant in the Obstetric Center"; and "The challenges encountered: infrastructure, material resources, and human resources".

The study complies with bioethical principles such as autonomy, beneficence, non-maleficence, and the ethical principles of reliability, privacy, anonymity, protection of image, and non-stigmatization, which seek to ensure the rights and duties applicable to research participants, the scientific community, and the State.

The study was approved by the Research Ethics Committee of the institution. All participants signed the consent form after agreeing to participate in the research.

RESULTS

Regarding the study participants, thirteen were female and two were male, with ages between 30 and 55 years. With respect to work shifts, eleven worked the day shift and four the night shift. In addition, ten nurses had specialization in Neonatal Nursing. Twelve nurses had training in neonatal resuscitation through the neonatal resuscitation course of the *Sociedade Brasileira de Pediatria*, except for three individuals who did not have specific training. In relation to the most recent training in neonatal resuscitation, the time since completion ranged between 3 and 11 years.

Assessment and recognition of the vitality of the preterm infant by the neonatal nurse

Most interviewees stated that good muscle tone and the presence of crying are the main parameters that ensure good vitality of the preterm infant at birth.

> *We will observe whether the infant has muscle tone and whether the infant is crying and breathing. (E6)*
>
> *The crying, right? The bodily response, whether the infant is very flaccid. (E11)*

In addition, some reported that they observe the skin coloration of the newborn, reflexes, the APGAR score, vital signs, and crying to assess vitality.

> *If there is tone, if there is color, if there is reflex, right? (E15)*
>
> *Tone, coloration, neurological aspect, the APGAR, vital signs, respiratory and cardiac rate, crying, all these are part of it. (E9)*

Regarding actions in the absence of good vitality at birth, some nurses mentioned immediate clamping of the umbilical cord as the initial step in neonatal resuscitation, in addition to ventilatory support.

> *Immediate clamping and, upon taking the infant to the resuscitation table, placing under a radiant heat source and performing the steps of resuscitation. Stabilize the airway. (E7)*
>
> *Check whether the heart rate is adequate. If it is inadequate, begin PPV with the bag and mask. (E1)*

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One interviewee emphasized that, in the institution in question, the clamping procedure is performed by the physician.

> *Immediate clamping is not for me to do, it is for the physician. (E7)*

Next, the monitoring of heart rate and oxygen saturation proved to be a procedure performed by the nurse.

> *You will assess whether the infant has heart rate and whether the infant has saturation. (E12)*

According to the nurses, the timing of umbilical cord clamping for the newborn with gestational age less than 34 weeks is related to vitality at birth. They reported that this procedure should be performed in a timely manner, that is, waiting at least 30 seconds after birth.

> *It depends on the gestational age. Less than 34 weeks, wait 30 seconds. (E1)*
>
> *If the infant is born well, perform timely clamping. If not, clamp immediately. (E6)*

Other interviewees, however, stated that the minimum time for the umbilical cord of the preterm infant to be clamped varies from 1 to 15 minutes.

> *The appropriate time is 1 to 3 minutes, and immediately if the infant is in serious condition and needs assistance. (E5)*
>
> *I think it is about 15 minutes, if I am not mistaken. I think 15 minutes or a little more is the period for you to clamp, you understand? (E9)*

The training of the neonatal nurse and the limitations during the resuscitation of the preterm infant in the Obstetric Center

With respect to ventilation, some professionals reported that the use of CPAP is conditioned to the newborn who presents altered oxygen saturation and respiratory pattern. Positive pressure ventilation is used in the absence of breathing.

> *CPAP if the infant still has respiratory discomfort, if you notice that the infant is not achieving an adequate respiratory pattern for that birth condition. (E8)*
>
> *If the infant is not able to reach a target saturation, we administer CPAP to increase the pressure and see whether the infant improves, you understand? (E3)*
>
> *PPV is used more often when the infant is born and does not have a respiratory rate, and you already need to perform a more invasive ventilation. (E13)*

Some nurses mentioned that a heart rate below 100 or 80 beats per minute (bpm) is also a parameter to be considered for administering PPV.

> *If the infant is already experiencing bradycardia, with a heart rate lower than 100, we already have to initiate PPV. (E3)*
>
> *Place the oximeter and check the heart rate of this infant. If it is below 80, initiate ventilation. (E8)*

There was a discrepancy regarding the reference values of bradycardia for initiating chest compressions, which in general, was related to the persistence of a heart rate below 100 bpm after administering PPV.

> *It is indicated only when bradycardia persists. After PPV has been performed and the infant still does not respond and does not have a heart rate higher than 100, chest compressions are initiated. The movements have to be at least 100 chest compressions per minute. (E1)*
>
> *It is after intubation and, even so, the infant remains bradycardic [...] I do not remember now if below 100, even after being intubated, compressions are initiated. (E7)*
>
> *Perform chest compressions when the heart rate is below 60. (E10)*
>
> *Perform compressions when the heart rate is below 40 or 60, I do not remember. (E11)*
>
> *So, identifying that there is no pulse [...] cyanosis, no heart rate, no pulse, no heartbeat, no respiration, then you really begin. (E9)*

The nurses also discussed the technique used to perform chest compressions on the neonate with a gestational age of less than 34 weeks.

> *The thumbs are placed side by side below the sternum, applying compression [...] compressing two-thirds of the thorax, and the ratio is 3 to 1. (E2)*
>
> *With the two fingers placed side by side at the level of the xiphoid process, I think it is a little above the xiphoid process. (E5)*

The administration of medication for resuscitation was indicated by the nurses as necessary when the neonate remains bradycardic even after the execution of the other maneuvers, such as PPV and chest compressions.

> *The infant is intubated and compressed; even so, without improvement, then medication has to be initiated. (E7)*
>
> *The child is not responding, then medication is administered as a last resort. (E13)*

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> *When we initiate chest compressions, we already assume that the infant is in need of medication (adrenaline) to maintain a heart rate higher than 100. (E1)*

The challenges encountered: infrastructure, material, and human resources

When questioned about their own theoretical-practical preparation and about the use of technologies for neonatal resuscitation, most participants demonstrated confidence and training to perform it, although emphasizing the need for updating.

> *Tranquil, I feel trained. (E2)*
>
> *Yes, I feel confident. (E14)*
>
> *I have to update myself, right? Read a bit more. (E10)*
>
> *[...] having a trained team strengthens the care more correctly. (E12)*

The displacement of the neonatal nurse from the Neonatal Intensive Care Unit to the Obstetric Center is considered a hindrance not only because of the distance between the sectors located in different buildings, but also because the professional is part of another setting, with specific organization, a different healthcare team, storage of materials in different places, and the possibility of lack or malfunction of some equipment specific for use with the neonate.

> *[...] arriving in another sector, you have to handle this technology that is not part of your immediate routine, so it is indeed a hindrance; we experience this. (E4)*
>
> *The technology fails, and many units do not have all the materials recommended. (E5)*
>
> *[...] not always what we need is so visible, is right there [...] sometimes there are people who are not from the sector, you have to request some things [...] in the moment, this can hinder. (E6)*
>
> *If you go to a resuscitation in which it was not you who prepared that place, this can be a problem [...] the greatest difficulties may be related to this. (E8)*
>
> *Arrangement of material itself [...] we are a sector that attends the child and another sector that prepares the kit, that arranges the material, right? The issue of allocation of staff sometimes arises, because we are consistently understaffed. (E15)*

One of the nurses emphasizes that working in a place you do not know or where you do not work causes stress in the team, in addition to the care being evaluated as of poor quality.

> *If you work in one space and have to attend in another space, it causes stress in the team, and this leads to poor-quality care. (E4)*

The statement of E14 stands out, indicating that they do not work directly in neonatal resuscitation, but assist the procedure alongside the neonatologist.

> *We... actually we do not perform the resuscitation, we participate in it, together with the neonatologist. (E14)*

Furthermore, Nurse E1 provides a critical reflection about the performance of the healthcare team working in the Obstetric Center.

> *The team members from the other sectors do not feel responsible for the birth of that infant, only for the delivery. After the infant is born, they are not prepared to receive them. (E1)*

DISCUSSION

The assessment of vitality at birth is the starting point for identifying the need to perform maneuvers that may assist the newborn in the transition to extrauterine life. This study sought to present the role of the nurse with respect to the maneuvers that contribute to the recovery of vitality in the preterm infant.

Vitality at birth is considered good when the PTNB cries and/or breathes and has active muscle tone[1]. Most interviewees responded appropriately regarding vitality at birth and the clamping of the umbilical cord of the PTNB <34 weeks, which should occur in a timely manner, waiting at least 30 seconds after birth[13,14].

In the context of birth, every newborn should be accompanied by at least one professional capable of performing the steps of resuscitation exclusively when these are necessary[4], such as initiating PPV, monitoring heart rate and oxygen saturation[1].

If the PTNB <34 weeks presents heart rate above 100 bpm at birth and breathes spontaneously but has oxygen saturation below the expected level and/or respiratory distress, the use of CPAP (continuous positive airway pressure) is indicated[1]. CPAP is recommended when oxygen saturation is below the target and in the presence of respiratory distress, such as tachypnea, nasal flaring, intercostal retractions, grunting, and altered skin color[15]. However, it is important to note that one

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participant contradicted the recommendations of the SBP by stating that bradycardia is an indication for CPAP, demonstrating a lack of knowledge regarding this aspect.

According to current guidelines, the heart rate characteristic of bradycardia in PTNB is below 100 bpm. However, in cases in which PPV is insufficient to reverse hypoxemia and bradycardia, chest compressions are indicated as a neonatal resuscitation maneuver[1].

It is noteworthy that there were divergences regarding the heart rate value indicative of initiating chest compressions, ranging from asystole, heart rate below 40, 60 and 100 bpm. In contrast, the literature shows that chest compressions should be performed when the heart rate remains below 60 bpm after 30 seconds of PPV via endotracheal tube[1].

Furthermore, chest compressions should be applied using overlapping thumbs on the lower third of the sternum, located below the intermammary line and above the xiphoid process, with the hands encircling the thorax to support the back of the PTNB <34 weeks[1].

If PPV and chest compressions are not successful, adrenaline should be administered when the PTNB <34 weeks has a heart rate below 60 bpm, even after PPV via endotracheal tube with 100% oxygen, accompanied by simultaneous chest compressions. It is worth noting that the umbilical vein is the preferred route of administration[1]. In accordance with the literature, in the present study, most participants stated that adrenaline should be administered when the newborn maintains bradycardia after PPV and chest compressions. However, respiratory rate, initiation of chest compressions, and the absence of good vitality at birth were mentioned as predictors for adrenaline administration, revealing incompatibility with current neonatal resuscitation guidelines.

Some participants reported not feeling fully prepared to perform resuscitation, highlighting the importance of constant updating. The literature indicates that adequate team training is crucial in adverse situations and is directly related to good practices for humanized care[16].

Although participants reported feeling confident regarding their practice during neonatal resuscitation, the use of expressions indicating doubt, such as “I think”, “I do not remember”, and “if I am not mistaken”, is noteworthy, demonstrating the urgent need to resume team training activities. Regarding the main difficulties encountered during neonatal resuscitation, some participants indicated the scarcity and malfunctioning of equipment. Similarly, a study conducted in public maternity hospitals in Goiás revealed a shortage of up to 25% of basic materials for delivery room care[17].

It is also important to emphasize the difficulty reported by participants regarding the transfer of the NICU team to the delivery room. In the hospital studied, delivery room nurses, whether specialists or not, do not act in neonatal resuscitation because of procedures established in the institution’s work process.

Neonatal resuscitation is the responsibility of the neonatal nurses of the NICU. In this context, institutional logistics may be associated with difficulties in familiarization, including obstacles related to travel time between the two sectors, approximately 10 minutes required for donning protective clothing, and the arrangement and handling of materials that are unfamiliar to the professional’s original sector, as cited by the participants. This highlights the need to reconsider the work dynamics of the teams in both sectors.

It can also be inferred that the fact that the nurse is called to work outside their original sector may compromise the care they provide because of the time required for transfer and the difficulty of adapting to another sector. In addition, it may weaken them as a member of the team, overburden them with different functions in different sectors and lead to their lack of recognition as a professional qualified to perform resuscitation maneuvers, devaluing them as a professional capable of working in the context of neonatal resuscitation.

In general, nurses view neonatal resuscitation as a routine component of their professional responsibilities and regard their role as central to the process, performing their activities with autonomy, knowledge, skill, and confidence in their assigned duties[18]. It is worth highlighting the statement of participant E7, who affirms that umbilical cord clamping and intubation are medical procedures, and the statement of interviewee E14, who declares that the nurse does not perform neonatal resuscitation, only participates.

From this perspective, in the hospital where the study was conducted, nursing performance in cardiopulmonary resuscitation of PTNB <34 weeks remains inhibited to some extent. However, it is important to note that although the administrative directive MS/SAS nº 371/2014 requires the presence of a physician during preterm resuscitation, the nurse has legal support to perform this role[6].

The nurses in this institution know how to recognize indicative signs of cardiorespiratory arrest, but have difficulty providing sequential care to these newborns. Studies indicate that a lack of preparation, training, and updating regarding the guidelines on the subject may lead to failures in nursing care in neonatal resuscitation[19,20].

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In this context, the absence of periodic training and technical-scientific knowledge within the team can act as a limiting factor, as insufficient preparation does not ensure safety or quality in the care provided, highlighting the need for continuing and permanent education[1,21].

Study limitations

As a limitation of the study, it should be acknowledged that the sample was composed predominantly of professionals working during the daytime period, resulting in lower representativeness of the nighttime team.

FINAL CONSIDERATIONS

This study aimed to describe the role of the neonatal nurse in the context of resuscitation, particularly of the newborn with gestational age below 34 weeks. For this, an overall panorama was obtained concerning the knowledge and clinical reasoning of the participating nurses, as well as the technologies required for resuscitation maneuvers.

It is important to highlight that a large proportion of the participants adhered to the guidelines of the *Sociedade Brasileira de Pediatria* proposed for neonatal resuscitation. The topics related to the determination of good vitality, prevention of hypothermia, maintenance of patent airways, and ventilation showed the highest level of alignment with the scientific literature. However, a minority of professionals presented discrepancies regarding the timing of umbilical cord clamping, the compression-ventilation ratio, and the reference values of heart rate that are important for the establishment of conduct.

Most of the participating nurses had training in neonatal resuscitation; however, it is recommended that the institution maintain a policy of constant updating.

It is essential to consider adjustments in the work dynamics of the sectors in order to strengthen the role of the obstetric nurse in the context of neonatal resuscitation within the Obstetric Center, which will enable this professional to be recognized as qualified and to contribute more effectively to the neonatal resuscitation process. On the other hand, the neonatal nurse will be able to dedicate themselves exclusively to their sector of origin, resulting in better working conditions and more qualified care for the children admitted to the Neonatal Intensive Care Unit.

It is expected that the present study will contribute to greater reflection on the role of the nurse in various settings, especially in the context of neonatal resuscitation, considering that many hospital routines are unfavorable to the appreciation of the nurse as a member of an interdisciplinary team. The nurse is capable of contributing effectively to the context of neonatal resuscitation and has legal support for this. Therefore, it is necessary to broaden the discussions on the subject and highlight the need to sensitize healthcare service managers to the changes required in work dynamics, creating opportunities for the appreciation of nursing work. Furthermore, the aim is to contribute to the improvement of the healthcare team, especially nursing, and for this study to subsidize future research and stimulate changes in the role and training of nurses in the area of Neonatal Resuscitation.

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Use of artificial intelligence tools

Authors declare that no artificial intelligence tools were used in the composition of the manuscript "*Neonatal intensive care nursing practice in the resuscitation of preterm infants in the Obstetric Center*".