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PERMANENT HEALTH EDUCATION ON CARE FOR PRETERM NEWBORNS

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ABSTRACT

The study reports the experience of developing a permanent education activity on care for preterm newborns (PTNB) to health professionals in the hospital context. Descriptive study with a qualitative approach, such as an experience report about a permanent education activity developed by multiprofessional residents of Child and Adolescent Health Care and carried out with multiprofessional teams from the Intensive Care Unit (ICU) and the Intermediate Care Unit (UCI) neonates of a reference maternity hospital in the state of Paraíba. The steps followed: initial planning, scientific study, authorization to carry out the action, preparation of the educational content, practical development of the action and evaluation of the activity. Seventeen health professionals participated in the activity, including nurses, nursing technicians, physiotherapists and speech therapists working in neonatal ICUs and ICUs. It was perceived the professionals' fragility about the knowledge of the discomfort that PTNBs may experience, the harmful consequences and preventive actions of daily practice. The experience brought the residency program closer to the health institution, enabled rich discussions, exchange of knowledge and production of knowledge, with a view to humanization and health promotion.

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INTRODUCTION

The health care of the newborn (NB) is of fundamental importance for the reduction of infant mortality, which is still high in Brazil (Fernandes et al., 2019). In Brazil, approximately 10% of babies are born prematurely, with newborns born before 37 weeks of gestation being considered preterm, and it is precisely in the first week of life, especially on the first day, that deaths are concentrated. children (Melo et al., 2015). Considered a moment of great vulnerability in life, the neonatal period includes biological, environmental, socioeconomic and cultural risks with the need for special care (Fernandes et al., 2019). Thus, the Neonatal Intensive Care Units (NICU) and Neonatal Intermediate Care Units (NICU) emerged, which, together with scientific and technological advances and the sophistication of therapeutic resources, have provided a decrease in the mortality rate and an increase in the survival of preterm newborns (PTNB) (Markestad et al., 2015). Birth situations of PTNB and / or low birth weight often generate the need for hospitalization in NICU and NICU, in which the necessary therapy developed in these environments exposes PTNB to many unnecessary stimuli, in addition to inevitable painful procedures (Christoffel et al., 2016). In addition, NICU and NICU PTNBs are constantly exposed to various other situations that bring negative results to their healthy development, such as constant exposure to light, noise, excessive handling, strong smells, which must be reduced by multiprofessional teams in the course of care (Leung et al., 2018; Carniel et al., 2017; Marcondes et al., 2017). Thus, health professionals in the development of their care activities play a fundamental role with regard to the reduction of negative situations experienced by PTNB in neonatal units, as well as, in the implementation of preventive measures, reduction or elimination of discomfort produced by stimuli unwanted or invasive and painful procedures. As a

means of reducing and / or interrupting the consequences of assisting the PTNB, the use of health education can be essential for the process of thinking, acting and rethinking professional practices in the face of the problem. Permanent Education in Health (EPS) is a strategy used to qualify and transform health care, through the (re) organization of services, actions and training processes of health practices (Ministry of Health, 2004). When combined with multiprofessional residences, EPS actions are a strategy that allows the development through resident professionals of meetings with health users and professionals from different services in order to (re) signify the different dimensions of care (Silva et al., 2016). Thus, considering the relevance of the theme on the attributions of multiprofessional teams in assisting the PTNB and the consequences generated by the situations experienced by the PTNB in NICUs and NICUs, this study was carried out with the aim of alerting and sensitizing health professionals who perform their duties with the RNPT, through an EPS activity, in order to mitigate care practices that generate negative implications in the life of the PTNs. Thus, the present study aimed to report the experience of developing an activity of permanent education in health for health professionals in the hospital context about the care of the PTNB.

MATERIALS AND METHODS

This is a descriptive study with a qualitative approach, of the type of experience report, which describes a practical experience of EPS in order to collaborate for the realization of new activities related to the theme as well as the improvement of care practices aimed at minimizing harm to PTNBs. The experience report exposed was experienced during the care practices of the Integrated Multiprofessional Residency Program in Hospital Health (RIMUSH) with an emphasis on child and adolescent health care at the University Hospital Lauro Wanderley, from September to November 2018, in a reference maternity in a municipality in Paraíba, Brazil, with health professionals who performed their functions in the NICU and NICU of that health institution.

Therefore, the development of the action took place from the six planning steps described below:

1. First stage - Initial planning: From the residents' concern about the theme and facing the situations experienced in practice, an initial meeting was held with the coordinators of the NICU and UCIN services to discuss and establish the type of action that would be developed and its methodological design and the attributions of each participating resident professional.
2. Second stage - Scientific study: Research was carried out for current scientific publications that addressed the theme of care with PTNB in the context of NICU and NICU, recognizing the gaps in the scientific knowledge in question.
3. Third stage - Authorization for the execution of the action: A meeting was held with the general coordination of the health institution and the coordination of the study center with the presence of the coordinations of the sectors targeted by the action, in which the general proposal of the action was presented with explanation of the objectives to be achieved and the methodology for carrying out the activity.
4. Fourth stage - Elaboration of educational content: Didactic material was constructed in the form of "slides" with expository-dialog presentation; figures of newborns in different circumstances and text to mediate a moment of relaxation. The materials were constructed from official documents from the Ministry of Health (MS) on the subject.
5. Fifth stage - Practical development of the workshops: Four workshops were held between October and November 2018, since the scale of the professionals was fixed on even or odd days, so both teams had the opportunity to participate. The dates were chosen to enter the schedule of celebrations for the week of the civil servant organized by the general coordination of the institution. The development took place in the study center of the institution, where it had adequate space to carry out the programmed activity.
6. Sixth stage - Evaluation of the workshops: This stage consisted of the general evaluation of the action. This was allowed, because at the end of the activity, the participants filled out a form constructed by the maternity studies center for use in all educational activities of the institution and this information was made available to residents to consolidate the action.

To achieve the objective of the action, the following didactic resources were used: data show, notebook, pen drive, sound box, video, scent essence, relaxation text and figures printed with images of newborns, which helped in the process of approaching the content favoring the transmission of the topic in question and the exchange of knowledge between multiprofessional residents and participants in the action. Thus, as it is an experience report, it is reported that it was not submitted to the evaluation of the Research Ethics Committee. However, it is noteworthy that during its development, the ethical precepts contained in the Resolution of the National Health Council No. 466/12 (Brazil, 2012) were obeyed.

RESULTS

The actions developed on the care of the PTNB for health professionals were the result of a concern of the resident professionals who developed assistance activities in the health institution and who felt the need to carry out it as a measure of permanent education with a view to improving the assistance provided, the recycling of practice and, therefore, the humanization of care. Thus, ten multiprofessional residents who were specializing in child and adolescent health care were part of this action, including two nurses, a pharmacist, an occupational therapist, a psychologist, two physical therapists, a speech therapist, a social worker and a nutritionist. Seventeen health professionals who worked at the NICU and NICU participated in the activities, including nurses, nursing technicians, physiotherapists and speech therapists. The four workshops were divided into two non-consecutive days, in which each day two shifts were carried out between 9 am to 10:30 am and another from 10:30 am to 12 pm to allow rotation among professionals on duty, alternating them between participation in the action and direct assistance to hospitalized NBs.

Action report with NICU and NICU professionals: Each workshop was carried out in five steps. First, there was a welcoming and personal presentation of all those involved, based on a dynamic aiming to build empathy and closeness between residents and participating professionals. Second, the professionals were presented with a thematic video available free of charge on the internet, which discussed the main negative attitudes of the professionals regarding the assistance to the hospitalized preterm NB, which simulated the point of view of the NBs themselves. Third, the participants were invited to “embark in the incubator”, therefore, slides were

used to mediate an exposition-dialogue about the five human sense organs in the PTNB and how reactions to external stimuli occur. In this way, information was presented about the stage of development of each sense in the PTNB and how the exposures and handling interfere with its development rate, successively for each sense - olfactory, auditory, tactile, tasting and visual. Thus, questions were raised about excessive exposure to lights in hospital environments that interfere with their circadian rhythm; the discomfort caused by odors circulating in the incubator when professionals take too long to change their diapers, in addition to the smell of professionals' hands when they use creams or perfumes; excessive noise when locking the incubator doors or placing objects on top of them; the pain caused by excessive manipulation in the physical exam, among others. At that moment, they were encouraged to reflect on their practices during the care provided in their professional activities. Fourth, a dynamic was carried out in order to sensitize professionals about the empathy with the parents of these newborns, who are often not understood in the subjectivity of the moment they are going through. Thus, the professionals were invited to close their eyes and imagine receiving confirmation of a pregnancy (for men it was indicated that they imagine receiving the news that they would be parents) and the mediator was proposing situations that would simulate the development of pregnancy and expectations about how the child would be generated until it ended, inducing the moment of birth when each professional was encouraged to choose randomly without viewing one of the figures placed on a table, which had images of newborns in the most diverse circumstances, such as: low birth weight, twins, congenital malformations, rare syndromes, and after that, they were asked to share their feelings about the expectation of having a child with normal characteristics and receiving one with some special need. In the fifth, and last step, before the emotions aroused in the professionals, a moment of relaxation was carried out, in which an atmosphere of darkness was established with the use of a calming essence and the mediator read a text that motivated a feeling of tranquility. After that, the participating professionals were invited to share their impressions about the workshop and filled out an evaluation questionnaire.

DISCUSSION

The multiprofessional residency program is a teaching modality at the lato sensu graduate level, which is characterized as in-service training and can be part of the multiprofessional team: nurse, pharmacist, nutritionist, physiotherapist, social worker, psychologist, occupational therapist, speech therapist, biomedical, physical educator and dentist (Silva e Natal, 2019). Thus, the resident professional who is in care environments, in addition to being in constant learning, is in a sensitive moment to the recognition of situations often overlooked by professionals who are in the routine of care practice and thus has a look directed at new practices, seeking assistance based on scientific evidence (Silva and Natal, 2019). EPS actions are instruments that instigate reflections on the daily experiences of the most diverse professionals. Thus, the proposal of the workshop in a context of participatory conversation aimed to stimulate reflections on the possibilities of expanding care, thus improving the quality of care and the link with patients / users of health services. The active dialogue provided by the activity is widely highlighted in the literature, since the active transmission of information allows learning by doing. In this way, the student in the face of a new context provided by the activity, ends up shaping himself differently from the traditional ways, making it easier to (re) formulate care practices to the PTNB (Farias et al. 2015). When professionals were asked to “board the incubator”, it was noticed that most were not aware of the consequences of how they provided assistance to PTNBs, thus, they individually performed some situations in their daily lives. One of the senses worked on was the view of the PTNB and it is known that this is the last system to be developed in the gestational period, in which half of the retinal vascularization forms at 32 weeks of gestation, while the remaining half is completed when reaching 40 weeks. Thus, PTNB has a high risk for abnormal visual development when compared to children born at term (Leung et al., 2018). A common pathology associated with prematurity is retinopathy, a disease secondary to inadequate vascularization of the immature retina, in which arterial oxygen levels hinder the newborn's retinal vascular development (Malheiro et al., 2019). Oxygen supplementation therapy, generally used in PTNBs, exposes the retina to arterial oxygen pressure (PaO2) two to four times greater than intrauterine PaO2 (PaO2 equal to 30 mmHg), causing constriction and vascular obliteration of the retina, causing elevation eye pressure and retinal detachment (Santos et al., 2015). In this sense, it is essential that the health team is aware of the sequelae arising from treatment with oxygen therapy in the care of PTNB. However, several participants were unaware of one of the precautions related to this that was worked on in the workshop, which is not to allow the directing of the air outlet to the eyes of PTNB when circulating oxygen therapy is indicated. Another point to be highlighted is the use of phototherapy, a very common practice in environments of NICU and NICU and which can also cause the degeneration of the newborn's retina if preventive measures are not used. In these cases, studies advocate the use of eye protection and ophthalmological examination in all PTNBs who are using phototherapy, or not (Santos et al., 2015).

Another factor related to vision is the use of strong and continuous lights throughout the NICU and NICU environment, used mainly to meet the needs of caregivers. The lights in these environments reach almost double the ideal illumination (645.6 lux) and because they stay on 24 hours a day, they do not allow the newborn to be recognized between day and night, representing a stressful factor for the baby, which can cause increased activity motor, bradycardia and sleep disorders (Loposzinski, 2016). For this reason, several units started to cover the incubators with fabric, however, the incidence of light in the baby's eyes almost always occurs during its handling. It is worth noting that sleep is the main behavioral state of PTNB, constituting an important basic need that favors the development of the central nervous system, immunity, energy maintenance, thermoregulation, learning, hormone production, protein synthesis and the consolidation of memory (Loposzinski, 2016). In this sense, in order to optimize the babies' sleep, some ICUs´ establish the "sleep time" in four periods of the day, lasting one hour per period. This moment brings the use of natural daylight, in addition to reducing noise and performing only necessary procedures (Santos et al., 2015). In the NICU and NICU units of the hospital in question, two “hours of sleep” are established per day, however they are not obeyed by all members of the health team, with unnecessary noise in the units, avoidable handling in newborns and use of routine artificial lights, these issues being worked on during the activity developed.

As for the olfactory and tasting senses, strong and unpleasant smells cause suction, alert and / or escape reactions. Intubation procedures and the prolonged use of probes for diets cause pain, damage food and speech disorders (Costa et al., 2016). On the other hand, there are aspects related to the auditory sense in which noise levels between 55 and 65 dB can excite nerve endings, produce physiological changes such as increased blood pressure, decreased oxygen saturation, apnea, increased intracranial pressure , hearing loss and stress, making NBs more susceptible to pain and thus requiring greater use of medications, as reported in studies by Costa et al. (2016) and Seniuk et al. (2017). In this sense, the ideal sound intensity in neonatal intensive environments is up to 40 dB on the A-weighted scale in the day, reducing 5 to 10 dB at night (Seniuk et al., 2017; Santana et al., 2015). Among the main sources of noise are the sounds involved in health care, such as technological equipment, the interaction between professionals, object manipulation, including the sounds generated in the incubator itself (Seniuk et al., 2017). Rocking the incubator, for example, generates noises of 130 to 140 dB, closing the incubator drawers 70 to 95 dB, pulse oximeter alarm generates 86 dB, however, several resources that produce sounds harmful to the newborn are essential to the process of work, and there must be ways that seek to minimize the occurrence of noise and the development of educational activities that seek prevention (Santana et al., 2015). In the workshop, the professionals were instructed to avoid the shift shift around the incubator, their daily practice. As for the aspects related to the tactile sense, they are the frequent handling of the NB, which can cause several disorders, including pain, since they feel pain for longer and more intense periods when compared to older children and adults, due to the immaturation of the pain inhibition pathway. . This situation generates greater energy expenditure, which is worrisome, since weight gain is closely linked to the increase of newborns in intensive care units in most situations (Marcondes et al., 2017).

The exposure of PTNBs to painful or stressful situations repeatedly during the neonatal phase is detrimental to their development, bringing harmful implications in the short term, such as physiological changes that influence vital signs and in the long term, such as changes in the neurobehavioral response to pain, disorders emotional and learning (Christoffel et al., 2016). Authors such as Marcondes et al. (2017) and Cruz et al. (2016) address in their studies that the frequent handling of the NB is capable of generating 5 to 10.2 disturbances / hour and for such reasons, it is up to the multidisciplinary team to develop strategies aimed at grouping procedures and care, minimizing the frequent stimulus of the RNPT. When the participants simulated the whole way of a pregnancy and at the end they came across children with special health needs, a moving environment was created and permeated by reflection on how to treat family members who were undergoing the adaptation to live with the NICU routine and UCIN. It is known that family expectations regarding a smooth pregnancy and the arrival of a healthy baby often do not materialize in the face of the need for premature birth. For Viana et al. (2019), this process generally becomes more difficult because it is associated with afflictions arising from the complications that culminated in the anticipation of delivery.A fragilidade no conhecimento dos profissionais identificada durante a ação educativa, corroborou estudo que propôs a identificaçãodo conhecimento de profissionais de saúde sobre o manejo, avaliação e tratamento da dor em uma unidade neonatal e concluiu que há grande necessidade de intervenções educativas que resultem em maior participação dos profissionais e influenciem diretamente no processo de mudança da prática(Christoffel*et al*., 2016). Thus, the benefits of EPS are emphasized, both for professional growth and for growth as a human being. Health education has the power to promote changes in the understanding of health, thus resulting in new means of responsibility to deal with health promotion, treatment and rehabilitation (Pereira et al., 2018). It was found, right after the activity, that the participants were extremely satisfied, because it is a new, sensitive experience and previously not experienced in the institution.

Final Considerations

The Integrated Multiprofessional Residence in Hospital Health brought an enormous contribution to the specialization of multiprofessional residents with an emphasis on Child and Adolescent Health Care during care activities, as it allowed them to experience different realities of health services, in addition to personal learning to the particularities found. Therefore, the reported experience brought countless results by allowing the critical analysis of real situations, coupled with the desire to experience assistance to the PTNI increasingly humanized and free of preventable negative events. In view of the above, it was perceived a weakness of the participants during the activity about the knowledge of the discomfort that PTNBs may experience during hospitalization in intensive care environments and the harmful consequences to their health, as well as about preventive actions that should be developed in daily practice. Thus, the permanent health education workshops made it possible to improve the theoretical and scientific knowledge of the professionals in relation to the subject addressed. The experience of the residents' activity with the health teams of the NICU and UCIN allowed an approximation of the residency program with the health institution, allowing for rich discussions, exchange of knowledge and production of knowledge, based on health promotion actions. This fact brings the importance of constant activities that combine scientific knowledge and daily experiences with the improvement of care practice. To this end, it is necessary the initiative of managers and care coordinators and the commitment of health professionals to adhere to the activities, in addition to materials and places for a good ambience in carrying them out.

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