ABSTRACT
Breastfeeding is the ideal way to feed newborns. Some infants, however, are unable to breastfeed and require alternative feeding methods. This study’s aim was to describe the perceptions of the nursing staff regarding alternative feeding methods used with newborns hospitalized in rooming-in. This is a descriptive study with qualitative design. A semi-structured interview was conducted with the nursing staff of a hospital in the interior of Paraná, Brazil. A total of 16 professionals participated. The reports were recorded, transcribed and analyzed using thematic analysis. The results were grouped into four themes: “The title Child-Friendly Hospital is determinant in the prescription of alternative feeding techniques”; “Benefits of alternative techniques such as cup-feeding and finger-feeding for breastfeeding”; “Criteria used to prescribe alternative feeding methods”; “Material used in alternative techniques”. Even though the professionals described the alternative feeding methods used with newborns to encourage breastfeeding, there is no consensus in regard to these methods. Additionally, obtaining the title Child-Friendly Hospital was determinant for the use of alternative methods, however, this practice is not carefully considered.

Keywords: Infant, Newborn, Feeding Methods, Rooming-in Care.

INTRODUCTION

Every newborn should be breastfed, however, some infants are born with some difficulty in relation to breastfeeding. In these cases, alternative methods are required to promote the growth and development of these babies. Some hospitals use an artificial beak for the provision of food, seeking to improve an infant’s sucking pattern. The use of a bottle is intended to train coordination of the sucking, swallowing and breathing functions while the infant is not in the appropriate condition to perform breastfeeding naturally.

This procedure has recently been called into question, especially in hospitals titled “Child-Friendly Hospitals”. When a beak, whether it is a bottle or pacifier, is offered to the baby, it can cause a phenomenon called nipple confusion, which negatively influences breastfeeding.

Many mothers face difficulties breastfeeding, whether their children are preterm newborns or full-term infants. Hence, mothers need to be oriented and supported during the intra-hospital period because it is in this mother-infant adaptation that the greatest difficulties are faced in regard to breastfeeding, including nipple lesions, breast engorgement, disorganized baby sleep, greater fatigue and longer recovery time for the mother, especially from surgical birth.

Early intervention is important in the prevention of future difficulties in the breastfeeding process, which usually can be easily resolved during the stay of the pair in the hospital after delivery.

In general, there is a lack of preparedness on the part of the healthcare staff to manage breastfeeding. Many workers adopt measures that do not favor breastfeeding, quite possibly due to a deficiency in their training and because they use actions more focused on the organic issues of breastfeeding. The healthcare staff
needs to focus their actions considering the hybrid, nature-culture aspect of breastfeeding, seeking continuing education, attitudes and behaviors that encourage a positive establishment of breastfeeding. We stress that this training is essential in cases in which babies are temporarily unable to breastfeed and require alternative feeding methods\(^6\).

There are techniques recommended by the Ministry of Health that avoid the use of bottles if the mother is not able to breastfeed at some point, due to varied reasons, and that do not affect the possibility of the infant breastfeeding in the future. The literature reports some alternative techniques of oral feeding that can be used with newborns, such as relactation, trans-lactation, cup-feeding and finger-feeding\(^7\).

Even though there are conceptual differences between relactation and trans-lactation, both techniques enable the milk to flow easier through a probe fixed on the side of the mother’s nipple, enabling the continuity of suction. Milk from the mother or formula can be used\(^7\).

The cup-feeding technique, in which the baby is fed through a cup, prevents the infant from becoming accustomed to beaks\(^7\). The cup has been used because it is a safe method to feed newborns, especially in terms of sterilization. The cup method, however, has some drawbacks because there is loss and waste of milk, it does not enable the anterior lip to seal, there is increased risk of bronco aspiration, and there is reduced stimulation of the suction muscles (especially of the buccinator muscles), among other potential problems\(^2\).

The finger-feeding method is a technique that consists of oral feeding and oral stimulation. In this technique, a number four or six probe is fixed on the gloved small finger of a professional using a thin tape. The probe is then connected to a cup or syringe, preferably with the milk extracted from the mother, and positioned below the height of the baby’s mouth so that the milk flows through suction instead of gravity\(^8\). Despite the previous description concerning the alternative feeding techniques, there is no consensus in clinical practice on the use and indication of these techniques\(^9\).

There is a lack of studies addressing alternative methods to feed infants that report on their indication and use by healthcare workers, among them, nurses.

The nursing staff assists newborns in rooming-in for 24 hours. For this reason, the roles of these professionals are extremely important for the feeding of newborns. Therefore, this gap, both in regard to practice and theory, motivated this research project. Hence, this study’s aim was to describe the perceptions of the nursing staff in regard to alternative feeding methods to support the staff’s practices, preparing staff members to promote and encourage breastfeeding.

**METHOD**

This is a descriptive study with a qualitative design. A semi-structured interview was used to collect data. Interviews were audio-recorded after the participants’ consent was obtained and transcribed verbatim afterwards. Interviews were conducted from November 2010 to July 2011.

A total of 16 healthcare professionals working in rooming-in care provided at Santa Casa in Irati, PR, Brazil participated in this study: one nurse, eight nursing technicians, and seven nursing auxiliaries, aged from 19 to 52 years old. The inclusion criterion was being a professional regularly hired for rooming-in, even if working in rotating shift schedules. Professionals who occasionally worked in the rooming-in context when there was a need for inter-consultations or in cases where exams were needed to support diagnoses or treatments were excluded.

The interviews followed a structured script with the following guiding questions:
- Some infants have difficulties breastfeeding. What do you do to feed these babies?
- Who prescribes the feeding method for these babies?
- What is the material used to feed these babies?

The number of the participants was established according to data saturation; that is, when the reports became repetitive, data collection ceased. The analysis of reports was performed using Thematic Analysis, which is characterized by identifying cores of meanings that compose communication, and the presence...
or frequency of which mean something for the analytical object\(^{(10)}\). After the exhaustive reading of reports, the reports were grouped according to the core meanings. To ensure the participants’ confidentiality, they were identified according to the sequence of their interviews (p1, p2, …, p26).

The project was approved by the Institutional Review Board at UNICENTRO (No. 362/2010).

**RESULTS AND DISCUSSION**

The results were grouped into themes: “The title Child-Friendly Hospital is determinant in the prescription of alternative feeding techniques”; “Benefits of alternative techniques such as cup-feeding and finger-feeding for breastfeeding”; “Criteria used to prescribe alternative feeding methods”; “Material used in alternative techniques”.

The title “Child-Friendly Hospital” is determinant in the indication of alternative feeding techniques

After the implementation of the “Child-Friendly Hospital” the professionals started using the alternative methods of cup-feeding and finger-feeding, avoiding bottles and pacifiers. Additionally, the mother’s own milk is preferably offered to the newborns instead of formulas.

[...]\(\) we certainly prefer breastfeeding, you know, and now that the hospital gained the title Child-Friendly Hospital, so here in the rooming-in there are no pacifiers, bottles; these kinds of things we don’t use. We exclusively use breastfeeding. When the baby has difficulties breastfeeding, we use finger-feeding, cup-feeding… (p1).

Many studies show that the implementation of the “Child-Friendly Hospital” is determinant in changing breastfeeding practices, contributing to the abandonment of formulas, replaced by breastfeeding\(^{(11)}\), increased breastfeeding rates in hospital discharge\(^{(12)}\), and up to the sixth month of life\(^{(13)}\).

We stress that the implementation of the 10 steps for successful breastfeeding can promote practice that is seldom reflected by healthcare workers who assist the mother-newborn pair. The management of breastfeeding not only includes orienting mothers and presenting techniques but also a reflective and understanding attitude on the part of healthcare workers, supporting women as they face the initial difficulties of breastfeeding\(^{(14)}\).

**Benefits of alternative techniques such as cup-feeding and finger-feeding for breastfeeding**

The use of alternative techniques was considered a benefit by all the interviewees. The alternative feeding techniques mentioned were cup-feeding and finger-feeding. Two interviewees (75%) noted that the benefit is linked to the knowledge of the technique because when misused, a technique can pose risks to the baby, particularly with the cup-feeding.

It’s like, finger-feeding…usually it’s more for those babies unable to (nurse), who won’t latch on, when he positions his tongue above the nipple, because there is no way we can lower it down, so with finger-feeding, you manage to lower the baby’s tongue so the breast is positioned above the tongue, so the baby learns, you know.[...](p16)

[...] the cup, if you pour a little more inside the baby’s mouth, he can drown. You have to be very careful to care for little babies…consider the risk posed to the baby. (p5)

A recent literature review indicates that some studies report that the cup-feeding method is efficient and safe to feed newborns. However, these studies do not objectively address the effect of the method on babies’ swallowing\(^{(15)}\). We assert that when the cup method is used indiscriminately, it can also cause the phenomenon of nipple confusion in newborns in the same way as using a bottle can. We suggest further studies be performed to demonstrate the effect of cup-feeding on this clientele.

In regard to finger-feeding, we note that there is no consensus in the literature in regard to its use and indication among newborns\(^{(9)}\). Therefore, its use and indication should be carefully considered, giving preference to techniques recommended by the Ministry of Health\(^{(16)}\), such as the cup itself, relactation and trans-lactation. We stress that when opting for an alternative feeding method, one should take into account the technique that is most physiologically like breastfeeding and involves the mother in the care process.
Criteria used to prescribe alternative feeding methods

All the interviewees (100%) report that the indication for an alternative feeding method depends on the baby’s difficulty breastfeeding; however, there is no clear criteria used by the staff to distinguish cases in which these methods are really necessary or not. It is apparent that there is no indication of what professional is apt to prescribe the alternative method, let alone perform it. This finding is in agreement with findings reported elsewhere in the literature(9).

 [...] especially with preterm babies, it’s a bit more difficult working with them... (p7)

 [...] some babies do not accept finger-feeding very well, you know... so you have to use other methods... we put the probe on the breast nipple itself and make the baby suck the breast, so it’s dependent on the baby to accept it (alternative technique). (p3).

 [...] we assist the mother a lot, you know, help to position the breast, so the baby latches on firmly. So if it doesn’t work, we use finger-feeding... or if it doesn’t (work) we try (feeding) using a syringe. We usually use syringes more frequently than cups. (p3)

 The alternative techniques more frequently mentioned were cup-feeding and finger-feeding. Some participants, however, mentioned the use of a syringe in feeding procedures. Formula was also mentioned in cases when the mother did not produce milk.

 [...] we stimulate with a probe, using it on the pinkie, we stimulate with the cup. Sometimes we need to complement feedings when the mother doesn’t have enough milk; we call the pediatrician and he prescribes NAN formula... we prepare the NAN and use finger-feeding or cup-feeding when the mother doesn’t have milk. (p6)

 The participants’ reports indicate a contradiction in their routines because, even though pacifiers and bottles were withdrawn from hospital practice, the use of syringes seems to be a naturalized practice. We consider using a syringe to feed babies to be a controversial practice, and in our experience, counter-indicated. We believe that newborns need to perform movements contrary to their physiology in order to extract the milk from a syringe, or use no movement at all when the milk is pushed with the plunger. Again, we call attention to the prescription of physiological methods that stimulate suction(16,19). In regard to the use of formulas, we note that the concept of “insufficient milk” should be reviewed by the staff. One study conducted with newborns in rooming-in shows that, on average, babies ingest 15ml of colostrum in the first 24 hours of life(20). Offering formula to the newborn discourages the mother and may lead to early weaning. For this reason, one should insist on milking the colostrum from the mother herself, even if in small quantities, because this process encourages breastfeeding and stimulates the hormones involved in breastfeeding.

 FINAL CONSIDERATIONS

The results reveal that, even though the nursing staff properly implemented the alternative feeding methods among newborns,
there is no consensus on their use and indication. Obtaining the title Child-Friendly Hospital seems to be determinant in the adoption of cup-feeding and finger-feeding alternative methods, despite the fact that the use of syringes is still a common practice, naturalized among the participants. We infer that the practices improve the prevalence of breastfeeding in rooming-in; however, there is a need for careful consideration and reflection upon these practices.

Finally, we note the importance of the work of the nursing staff in managing breastfeeding in rooming-in, the need for continuing education and the work of an interdisciplinary team to provide integral healthcare to mother-infant pairs and to promote breastfeeding in a humanized fashion.

PERCEPÇÃO DA EQUIPE DE ENFERMAGEM SOBRE MÉTODOS ALTERNATIVOS DE ALIMENTAÇÃO PARA RECÉM-NASCIDOS EM ALOJAMENTO CONJUNTO

RESUMO
O aleitamento materno é forma ideal de se alimentar recém-nascidos. Entretanto, alguns bebês ficam impedidos de mamar no seio materno e necessitam receber alimentação por métodos alternativos. O objetivo do presente trabalho foi descrever a percepção da equipe de enfermagem acerca dos métodos alternativos de alimentação para recém-nascidos internados em alojamento conjunto. Trata-se de um estudo descritivo, de delineamento qualitativo. Realizou-se entrevista semi-estruturada com a equipe de enfermagem de um hospital do interior do Paraná. Participaram um total de 16 profissionais. As falas foram gravadas e transcritas e realizou-se análise temática. Os resultados foram agrupados em 4 núcleos temáticos: “O título Hospital Amigo da Criança como determinante para a indicação das técnicas alternativas de alimentação”; “Benefícios das técnicas alternativas copo e sonda-dedo para o aleitamento materno”; “Critérios para indicação dos métodos alternativos de alimentação”; “Materiais utilizados na alimentação alternativa”. Verificamos que, embora os profissionais descrevam os métodos alternativos de alimentação utilizados em recém-nascido, com vistas ao aleitamento materno, não há consenso sobre essa indicação. Além disso, percebemos que a obtenção do título Hospital Amigo da Criança foi determinante para a recomendação dos métodos alternativos, sendo essa prática pouco refletida.


LA PERCEPCIÓN DEL GRUPO DE ENFERMERÍA SOBRE LOS MÉTODOS ALTERNATIVOS DE ALIMENTACIÓN PARA LOS RECÉN NACIDOS EN ALOJAMIENTO CONJUNTO

RESUMEN
La lactancia materna es alimento ideal para los recién nacidos. Sin embargo, algunos bebés son incapaces de lactancia materna y la necesidad de recibir métodos alternativos de alimentación. El objetivo de este estudio fue describir la percepción del equipo de enfermería sobre los métodos alternativos de alimentación para los recién nacidos en el alojamiento conjunto en la atención. Se trata de un estudio descritivo de un diseño de investigación cualitativa. Hemos llevado a cabo entrevistas semi-estructuradas con el equipo de enfermería de un hospital en el interior de Paraná. Participó en un total de 16 profesionales. Las conversaciones fueron grabadas y transcritas y el análisis del rendimiento temática. Los resultados se agruparon en cuatro temas: “El título del Hospital Amigo del Niño como un factor determinante para la indicación de los métodos alternativos de alimentación”; “Los beneficios de la alimentación con taza y la alimentación dedo para la lactancia materna”; “Criterios para la indicación de los métodos alternativos de alimentación”; “Los materiales utilizados en los métodos alternativos de alimentación”. Se encontró que aunque los profesionales de describir los métodos de alimentación alternativos utilizados en el recién nacido, el objetivo de la lactancia materna, no hay consenso sobre su indicación. Asimismo, se dan cuenta que conseguir el título Baby Hospital Amable fue crucial para la recomendación de métodos alternativos de alimentación, sin embargo esta práctica es irreflexiva.


REFERENCES
4. Silveira LM, Prade LS, Ruedell AM, Haefner LSB, Weinmann ARM. Aleitamento materno e sua influência nas

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