

Amamentação de prematuros com menos de 1500 gramas: funcionamento motor-oral e apego***

Breastfeeding of premature babies with less than 1500g: oral motor functioning and attachment

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Abstract

Background: breastfeeding of premature babies. **Aim:** to describe breastfeeding in premature babies with very low birth weight (VLBW) and its association with the oral motor system (OMS) and with maternal-child bonding. **Method:** a cross-sectional study with 48 VLBW premature babies. An interview with the mothers, as well as the evaluation of the newborns' OMS and signs of attachment was performed. **Data** was submitted to a descriptive analysis and to the Fischer Test. **Results:** variables that showed statistical association with nutritive sucking were: child's position at breast; nipple grasping; sucking coordination between sucking, breathing and swallowing; strength and maintenance; rhythm, and level of conscious. Twelve pair situations presented signs possible bonding problems. **Conclusion:** components of OMS are associated to the quality of feeding of premature babies. This fact suggests that the early evaluation of breastfeeding can detect difficulties that could jeopardize adequate nutrition.

Key Words: Breastfeeding; Premature; Speech Language and Hearing Sciences; Attachment.

Resumo

Tema: amamentação de pré-termo. **Objetivo:** descrever a amamentação em bebês pré-termo de muito baixo peso e associações com disfunções orais e apego mãe-bebê. **Método:** estudo transversal com 48 bebês. Foram realizadas entrevista com as mães, avaliação oral e dos sinais de apego. Foi feita análise descritiva e Teste Exato de Fischer. **Resultados:** as variáveis que se associaram estatisticamente à adequação da sucção nutritiva foram: postura no seio, prensão do mamilo, coordenação da sucção, respiração e deglutição, força e sua sustentação, ritmo e alerta. Doze díades tiveram suspeita de alteração do apego. **Conclusão:** componentes do sistema oral estão associados à qualidade da alimentação destes prematuros. Isto sugere que a avaliação precoce da amamentação pode detectar dificuldades que a colocam em risco.

Palavras-Chave: Aleitamento Materno; Prematuro; Fonoaudiologia; Apego.



Introduction

With the technological progress in the perinatology area, from the decade of 60, the survival of pre-term babies increased enormously. This fact raised the necessity of improving these babies' lives, specially those of extremely low birth weight who remain in the hospital for a long time and are at risk for a number of interventions.

A baby that is born pre-term has extra-uterine adaptation difficulties. Until some years ago, the survival of pre-term infants of extremely low birth weight was very rare due to the respiratory, circulatory and gastrointestinal functions immaturity. With the appearance of drugs that accelerate the pulmonary maturation (surfactant), of new technologies in mechanic ventilation, of the application of vasoactive and antibiotic drugs to combat the infections and of the parenteral nutrition benefits, the mortality and morbidity are being reduced in long and short terms (Hernandez, 2001).

In the last few years, the interest for the detection and prevention of pre-term babies development alteration, which the interurrences place them at risk for transitory or permanent development disorders, have been intensified. This fact stimulated the multidisciplinary staff treatment, aiming at the integral assistance of the baby and favoring his global development (Halpern et al, 2000).

Regarding the first affective relations, according to Xavier (2003), the pre-term mothers in the end of the pregnancy miss, what is called by Brazelton (1988), the "consolidation period", in which the parents invest in the imaginary baby, including this baby in the familiar talk and getting prepared for his arrival. The baby who is born before the expected period does not correspond to the parents expectations, who besides mourning the imaginary child, will mourn a pre-term baby who is at risk for dying or already has his death announced (Wirth, 2000). It is known that the non concretization of the imaginary and perfect son hinders the relationship mother-baby, determining in both parents, specially in the mother, a narcissist wound that generates several guilt, rejection and even hostility feelings. The mourning for the ideal son and the acceptance of the real baby is a difficult process that depends on the mother's individual history, on the relations with her own parents and on the psychological conditions presented by her (Spitz, 1998).

For Cresti & Lapi (1997), the long hospitalization makes difficult the establishments of the mother-

baby relationship once it takes away the mother's knowledge and strength over the sick son. On the other hand, these authors affirm that the interventions managed by the hospital structure can also support the potential of the dyad relationship, facilitating its activation in favor of an approximation. The authors affirm that the hospital may act as an "envelop that contain and protects" not only the baby, but also the mother, giving an adequate support during the stay in the unit.

In the feeding development area, the oral motor abilities seem to be related with the type of the neonate feeding, since it is from the oral reflexes and specially from the sucking performed in the first months of life that these abilities improve. Therefore, the type of feeding (natural or artificial) received by the baby and the way it is offered (maternal breast, nasal or orogastric tubes) and yet, the quality of the initial contact with the mother during the feeding should be taken into account (Alves & Tudella, 2001; Delgado & Zorzetto, 2003).

The maternal milk is universally accepted as the best feeding for the at risk or normal babies, since it offers economic, immunologic, nutritional, endocrinous and emotional (mother-baby bond) advantages (Schanler, O'Connor & Lawrence, 1999; Giugliani, 2000; Toma & Monteiro, 2001; Carvalho & Tamez, 2002). Furthermore, the maternal milk has advantages that are not provided by any other technique. The natural feeding promotes the baby's craniofacial development by the oral muscles adequate movements, closing a physiologic circuit of correct sucking, breathing and swallowing and preventing hypo-development, malocclusion, and articulatory problems (Laan, 1995; Hernandez, 2001).

The sucking ability is considered a flexor activity that facilitates the successful feeding. For that, the baby has to obtain an appropriate and physiologic posture. The sucking pattern ("*suckling*") performed by the newborn baby is primitive patterns that consist of forward and backward tongue movements, as in a "licking". The lips remain loose around the beak and there is a combined opening and closing mandible movements (Arvedson, 1998; Dowling, 1999; Hernandez, 2001).

During breastfeeding the nipple compression occurs after the rooting reflex that directs the lips towards the stimulus, consisting of a precursor of sucking (Neiva et al, 2003). This compression of

the nipple by the tongue against the hard palate determines an intra-oral positive pressure. In order to occur the milk flow inside the oral cavity, changes in pressure from positive to negative are necessary. This happens when the tongue depresses its medial part forming a canal, and together with the anterior sealing performed by the tongue and lips and the posterior sealing of the dorsal tongue elevation against the soft palate allow the food entrance (Arvedson, 1998; Neiva et al, 2003).

According to Rocha (2002), the maternal feeding in pre-term babies when compared to the normal term babies is more difficult to be initiated and maintained. Studies point that, among other more important factors that make it difficult, there is the prolonged separation of mother-baby, the maternal anxiety and stress, the management of professionals who support the feeding, the decrease of milk production, the insecurity of the mother regarding her milk's quality, the immature feeding behavior of the pre-term newborn, specially those with less than 1500 grams and below 32 weeks, and finally, the hospital routines (Lau & Schanler, 1996; Schanler, O'Connor & Lawrence, 1999; Vasconcellos, 2001).

The insertion of the Speech and Hearing Science is recent in this panorama. The speech and hearing pathologist takes care of the aspects regarding the feeding and breast feeding, the hearing and language development, as well as the mother-baby contact: treats communication globally, integrating his work to all interfaces of multidisciplinary work performed in the nursery (Facchini, Almeida & Delgado, 2000).

The speech and hearing follow up offers, according to various studies, several benefits to the high risk baby, among them: the mother-baby interaction stimulation, the humanization of the nursery aiming at making it a more adequate place for the babies development, the faster transition from the gavage feeding to oral feeding, the promotion of maternal feeding, the re-organization of the vigilance state of the baby regarding the sleep, hunger and attention states as a faster neurological maturation (Hernandez, 2001), the detection of children with hearing problems quickly referring them for early investigation and treatment (Costa, Azevedo & Fukuda, 2000), and the anticipation of hospital discharge in many cases (Berezin, Galacci, Xavier & Rodrigues, 1993).

Specifically in the feeding assistance, the speech and hearing therapist can have a fundamental actuation, providing an adequate oral stimulation and facilitating the mother-baby

relationship. The feeding aims at the nutritional needs supply for an adequate growing and, according to Xavier (2003) it is also a complex biopsychosocial process that includes alert state, cognition, motor development and neurological maturation, besides the mother-baby interaction organizing the first relationships (Spitz, 1998). The feeding moment is of great mother and son interaction, to the point that the pause/activity patterns establish the babies' demands regarding the attention that he wants from the mother, intensifying the affection. Brazelton (1988) and Morizot (1999) affirm that the mother is tuned with the baby following the conscious state (vigilance and sleep) and hunger and satiety rhythm, providing him the base of the learning to be in an alert interaction state, in which the baby has more opportunities to learn and emotionally develop.

The suitability of the feeding function in pre-term babies requires the professional knowledge on breastfeeding, as well as on the alternative feeding techniques (parenteral, tubes, gastrostomy). Furthermore, he must be able to evaluate and diagnose the motor oral function alteration in order to promote normal feeding conditions as soon as it is clinically possible. Andrade (1996) points that these benefits are very important for the pre-term and, therefore, justify the breastfeeding incentive for those babies.

Taking into account that pre-term babies of extremely low birth weight would present difficulties to establish the feeding function, this study aims at investigate the variables associated to the feeding quality, including the possible association with motor oral alterations and bond in this group of babies.

Method

For the conduction of this research, a compulsory Informed Consent Term for researches in human beings was used (Resolution N^o01 from 13/06/88- CNS), approved by the Research and Pos Graduation Ethics Committee of the Clinics Hospital of Porto Alegre, protocol N^o 01-277.

A quantitative, observational and transversal study was performed. The sample was selected by the accidental non-probabilistic method or convenience. Forty-eight pre-term babies (less than 37 gestational weeks), with birth weights below 1500 grams, interned in the neonatal UTI of the Clinics Hospital of Porto Alegre (CHPA), born in a period of 12 months were included. The pre-term newborn (PTNB) who presented head and neck

congenital malformation, syndromes including HIV+, and babies whose mothers did not choose the suckling were excluded.

This research was accomplished in the Neonatal Internation Unit (NIU) of the CHPA, in Rio Grande do Sul. This unit is a reference center for the assistance in neonatology and the majority of interned babies is composed by PTNB coming from the Obstetric Center, from the Emergency and from transfers from other hospitals.

The patients information were obtained from the standardized files of the Neonatology Service where data from the gestational and birth history, babies condition, birth weight, internation date, clinical interurrences during the internation, diagnosis, use of tube for feeding, actual general clinical conditions were collected. Furthermore, a structured interview was performed with the mothers in order to obtain recent socio-demographic data regarding the schooling, family income, mother's age, companion and prenatal appointments.

The babies evaluation was performed with the application of the protocols concerning the stomatognathic structures and functioning, specific evaluation of the oral reflex, non-nutritive sucking (NNS) evaluation and nutritive sucking (NS) when prescribed by the doctor, as well as the feeding observation comprising of mother-baby bond signs adapted from the observation protocols of Chatoor, 2002; Sanches, 2000; Neiva, 2000; Carvalhães & Corrêia, 2003. The mother-baby bond signs were observed through five items: baby remains alert, visual contact, physical contact, way mother holds baby, and mother talks to baby. Each item was considered score 1 for "yes", so the minimum score was 0 and the maximum score was 5, meaning that mothers with scores below 3 (by the statistical criterion of the median of the sample) presented suspicion of bond alteration.

A database was developed for the analysis of the results in the Epi-info 6.0 software. For the statistical analysis the software SPSS/PC 9.0 was used. In order to describe the variable distribution, central tendency measures were used such as median, average, mode, and minimum and maximum amplitude limits. The Fischer Exact Probability Test was used to verify the possible factors associated to the feeding quality and selected independent variables, that is the adequate statistical test for small samples (Jekel, Elmore & Katz, 2002). Significance was considered when $p < 0,05$.

The bibliographic review was performed through researches in the MEDLINE and LILACS

database and through scientific literature review about the theme.

Results

The studied mothers' profile was: predominant age between 21 and 34 years old (45,8%); low schooling and low income; 83% had stable companion and 54,2% were primigest. Regarding the prenatal monitoring, only one mother did not attend any appointment; the average of appointments was 5 and the mode was 6 appointments. The minimum and maximum amplitude limits were from 0 to 15 appointments, respectively. Of the 48 interviewed mothers, 32 (66,7%) received counseling concerning the suckle and 16 (33,3%) did not.

Table 1 presents the distribution of mothers according to the place where they received counseling.

TABLE 1. Distribution of the mothers according to the place where they received the counseling about feeding. HCPA. Porto Alegre, 2002.

Local da Orientação	N	%
pré-natal	4	12,5
no quarto	7	21,9
na UTI Neonatal	21	65,6
TOTAL	32	100,0

Legenda: N = número.

Of the 48 babies composing the sample, 23 (47,9%) were male and 25 (52,1%), female. Concerning the gestational age, the average was 30 weeks; the majority of the babies were born from cesarean delivery (32 or 66,7%) with mean birth weight of 1106 grams; 36 (75%) used mechanic ventilation; 48 (100%) used feeding tubes, 87,7% was orogastric, with predominant mixed feeding (bottle and maternal breast), prescribed by the responsible staff. It is important to stress that in this sample the median of the babies' postnatal gestational age in the moment of the evaluation was of 35 weeks and 4 days. The sample's hospitalization time presented minimum and maximum amplitude limits of 16 and 104 days, respectively. The average was 47 days.

TABLE 2. Oral reflex classification. HCPA. Porto Alegre, 2002.

Reflexo Oral	Adequado		Débil		Exacerbado		Ausente	
	N	%	N	%	N	%	N	%
busca	43	89,6	4	8,3	1	2,1	0	0
sucção	45	93,8	1	2,1	2	4,2	0	0
mordida	38	79,2	3	6,3	7	14,6	0	0
engasgo	44	91,7	4	8,3	0	0	0	0

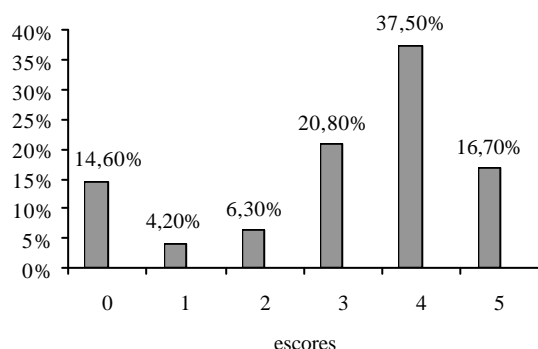
Legenda: N = número.

TABLE 3. Variables of the oral evaluation associated to the proper nutritive sucking. HCPA, 2002.

Variáveis Independentes	Distribuição na Amostra		Valor p*
	N	%	
postura inadequada ao seio materno	8	66,7%	p < 0,03
preensão do mamilo inadequada	13	76,5%	p < 0,01
incoordenação da sucção, deglutição e respiração	4	21,1%	p < 0,02
força inadequada	17	89,5%	p < 0,02**
sem sustentação da força	19	100%	p < 0,01
ritmo inadequado	7	36,8%	p < 0,01
bebê não mantém o alerta	16	84,2%	p < 0,03
suspeita de alteração de vínculo mãe - bebê	8	66,7%	p < 0,03

Legenda: *Teste Exato de Fischer; **Qui-quadrado de Pearson; N = número.

GRAPH 1. Distribution of the dyads according to the score of suspicious bond alteration. HCPA. Porto Alegre, 2002.



The stomatognathic structures of these babies were evaluated in the aspects of: conformation, posture and tonus observing that the majority of the sample presented normal conditions for these items.

The oral reflex of rooting, sucking, bite and gasp were evaluated and the following results were obtained (Table 2):

Each one of these items received score 1 for “adequate”, therefore the minimum score was 0 and the maximum 4, meaning that babies with scores below 4 had inadequate reflexes. We observed that 32 (66,7%) had adequate reflex and 16 (33,3%), inadequate.

The mother-baby bond signs that were observed showed that 7 mothers (14,6%) had score 0, 2 mothers (4,2%) had score 1, and 3 mothers (6,3%) had score 2, composing the suspicious bond alteration group. In the group that presented scores from 3 to 5, 10 mothers (20,8%) had score 3, 18 mothers (37,5%) had score 4, and only 8 mothers (16,7%) had score 5, as shows Graph 1.

The variables associated to the proper nutritive sucking were: the posture in the maternal breast (MB); the nipple compression; the sucking, breathing and swallowing coordination; sucking strength; maintenance of the sucking strength; rhythm; alert state; and suspicious mother-baby bond alteration, constituted in the difficulties to establish the feeding in this sample, shown in Table 3.

All 12 (100%) babies with suspicion of bond alteration did not stay alert during the suckle and these variables were significantly associated ($p < 0,01$). Of the 36 (100%) babies who did not present suspicious bond alteration, only 16 (44,4%) stayed alert. This association was maintained, even controlled by the variables mother’s age and family income.

The same way, regarding the variable mother talks to baby, we can observe that all 12 babies (100%) who presented suspicious bond alteration had mothers who did not talk during the feeding and presented significant association ($p < 0,03$).

Discussion

The present research did not present significant association occurrence of the outcome with the socio-demographic factors. This is possibly related to the methodological limitations (sample size), but it also accords to the fact that prematurity does not have its main determinant in the socio-economic conditions (Puffer e Serrano, 1988).

In this study, 50% of the mothers had from 5 to 7 prenatal appointments, as suggested by the WHO. Although this result is encouraging, concerning the prenatal feeding counseling, only 12,5% of the mothers reported having had some kind of information regarding this subject in the appointments. This result presents worse indexes than the study of Sanches (2000) – in which only 36,8% of the mothers received milk feeding guiding in prenatal appointments – and the study of Segall, (1996) – in which only 40% reported having counseling. It agrees with Fogo's (2000) research with premature mothers, which the results showed that they did not receive any kind of counseling for the feeding during the prenatal period. Although the pregnancy is shorter, it does not justify such practice.

Schanler, O 'Connor & Lawrence (1999) and Giugliani (2000) report that the preparation for the suckle before the birth contributes for the feeding successes. The future mothers should reflect about the child's feeding during the prenatal period, when the pregnancy is well established. They should attend to one or more prenatal appointments to comment on suckling and on other aspects of the puericulture that might elicit doubts. In this research, this practice was little reported by the interviewed mothers.

On the other side, 65,6% of the interviewed mothers admitted having counseling in the Neonatal UTI. Similar finding was obtained by the study of Lima & Peterlini (1996), in which 62% of the mothers admitted having counseling during the internation. This result suggests that it is very important to have a staff in the Neonatal UTI to guide these mothers, once the maternal feeding, before the childbirth, seems not to be valued in the health system instances.

Analyzing the sample's babies characteristics we can stress that the gestational age presented an average of 30 weeks. The mean birth weight was 1106,77 grams. Therefore, they presented, as expected, an extreme prematurity profile and low birth weight, constituting a very high-risk group for all levels: biological, environmental and social.

The majority of the babies, (66,7%), was born of cesarean birth, concordant with the pre-term studies (Grupo Colaborativo de Estudos Perinatais, 1996; Rocha, Martinez & Jorge, 2002) that also obtained indexes above 50%. These results may be suggesting that the surgical birth indication, in these cases, contribute to a better prognostic in the surviving of the pre-term with life risk (Levy e Rainho, 2003) .

Regarding the mechanic ventilation, 75% had some ventilation support. This data was expected, once respiratory alterations due to immaturity of the respiratory and/or neurological system are more frequent in pre-term with birth weight below 1500 grams. However, although the literature points this factor as at risk for the adequate development of the feeding function (Xavier, 2003), there was no significant association with the proper suckling in this research.

Concerning the use of tube to feed the babies, 100% of the sample used this form of feeding, and 87,7% was orogastric. The prolonged use of tubes in the oral cavity may contribute for the altering of oral structures, especially the hard and soft palates and the upper gum in their shape, mobility and/or tonicity, and of the oral sensitivity. However it seems to be preferable than the nasogastric tube due to the fact that it doesn't interfere in the babies breathing, that may lead to fatigue and desaturation in the feeding time, justifying this result (Hernandez, 2001) .

In respect to the oral reflexes, we verified that of the 48 evaluated babies, 66,7% presented adequate reflexes. Of the 33,3% babies who presented inadequate oral reflexes, we observed that the rooting reflex was the most altered one with 4 children presenting debilitate (8,3%) and only 1 (2,1%) presenting exacerbated reflex. We detach the rooting reflex as important because, according to Schanler, O 'Connor & Lawrence (1999) it is the precursor for the correct nipple compression, directing the lips and tongue to bite the beak and the areola, provoking an adequate opening of the baby's mouth triggering the sucking reflex. When it is debilitated in the pre-term babies, this reflex may interfere in the initial sucking, indicating immaturity, many times (Alves & Tudella, 2001).

The bite reflex was exacerbated in 7 babies (14,6%). This condition hinders the initial sucking reflex, inhibiting it. The exacerbation of this reflex may be related to the establishment of a defensive oral pattern that tries to protect the baby from

inadequate and unpleasant stimuli (orogastric tube, intubation, medicines) (Levy & Rainho, 2003), to which the babies are frequently exposed and that was evident in this sample.

Twenty-nine babies (60,4%) presented proper nutritive sucking. Regarding the items of the oral evaluation that had significant association with the proper nutritive sucking, the posture in the MB is in first place. Of the 12 babies who presented inadequate posture in the MB, 8 (66,7%) had inadequate nutritive sucking and of the 29 babies who presented adequate nutritive sucking, 25 (69,4%) also had adequate posture. These results coincide with studies that point out the correct posture as indispensable for an adequate feeding. Schanler, O' Connor & Lawrence (1999), Giugliani (2001) remind that the dyad position during feeding is more than a functional control of the body because it is associated with the mother and baby interactive processes and with the oral motor function performance.

Secondly, the nipple compression was also associated with the proper nutritive sucking. Of the 17 babies who presented inadequate compression, 13 (76,5%) also presented inadequate nutritive sucking. Contrarily, Neiva (1999) found in her sample only 18,3% of premature babies with this difficulty. In general, the authors describe the importance of the fitting of the baby's mouth with the nipple's areola, mainly from ultrasonographic studies (Wein, Angerstein, Klajman et al., 1993), that confirm the contribution of lingual movements against the areola, massaging the milky breast and positively influencing the transfer of the milk from the breast to the oral cavity.

Another variable that presented association with the suckling suitability was the sucking, swallowing and breathing coordination. All 29 (100%) children who presented adequate nutritive sucking had sucking, swallowing and breathing coordination; 4 children (21,1%) who presented lack of coordination of these functions also presented inadequate nutritive sucking. Neiva (1999) found that 98,3% of her sample also presented lack of coordination of these functions coinciding with the outcomes of this research. The coordination difficulty of the neurovegetative functions in premature babies that contributes to the feeding failure is well commented in the literature. According to Arvedson (1998), before 34 weeks of gestational age, this coordination is not developed. Immature babies with coordination failures are at risk for aspirating liquid into the lungs. It is important to stress that the median of

postnatal gestational age was 35 weeks and 4 days, therefore with adequate maturational conditions to start the oral via, suggesting to be one of the factors that justify the results found.

Also, the variables strength, maintenance of sucking strength and rhythm during the suckling presented significant association with the proper nutritive sucking. This result was also found by Neiva (1999), that observed that pre-term babies presenting these adequate variables did not present atypical or altered nutritive sucking pattern. According to Brazelton (1999), Xavier (2003) and Hernandez (2001), these three factors are fundamentally important for the organization and success of the neonate feeding. Although the sucking is a reflex act in the beginning of life, there are individual variations of the babies in reaction to the stimuli. The child sucks in a regular pattern of bursts and pauses, keeping a certain strength that allows the reception of all food that he needs to be fed with. The strength is directly related to the tongue tonus as well as to the global tonus. It is frequent that PTNB present diminished strength as revealed by Machado's (1996) study, in which 48% of the premature babies presented weak sucking strength. In the present research, of the 19 babies who presented inadequate nutritive sucking, 17 (89,5%) also presented inadequate strength during suckling. The sucking rhythm can vary during the suckling, presenting longer pauses in the end of the feeding, possibly related to the physiologic mechanism of satiation and fatigue caused by the muscular work (Xavier, 2003). In very immature premature babies, this self-regulation may not be present causing problems during feeding time, with repercussion to this baby's life.

It was observed that of the 19 babies (100%) who presented inadequate nutritive sucking, 16 (84,2%) did not maintain the alert state during feeding, and this variable had significant association with the proper nutritive sucking and suspicious mother-baby bond alteration. The conscious states are pointed in the literature as an influence factor in the feeding success (Brazelton, 1988). This author affirms that the predominance of the sleep state interferes in the suckling rhythm, strength maintenance at the same time as it determines a failure in the dyad interactional feedback. This fact was confirmed in the present study.

It was verified that 25% of the sample presented suspicious mother-baby bond alteration. The proper nutritive sucking was associated to this variable. Of the 12 children who presented

suspicious bond alteration, 8 (66,7%) presented an inadequate nutritive sucking. Mothers of PTNB present high stress thresholds and less tolerance to frustration, and these babies are less expressive and more stressed; therefore, it is expected that the bond and communication development is slower and more difficult than in normal term babies. Lau et al (2000) point that the companion negative behavior during feeding may cause failure-to-thrive, that is, development failure or delays. Independently of the babies skills for feeding, the mother's impatience or inexperience during the suckling may lead the baby to an inadequate performance. Sameroff (1999) stresses that the psychological state and the availability of the mother for feeding, more than any other factor, may facilitate or impede the breastfeeding success. These arguments could be some of the factors that reinforce the present outcome.

All 12 babies (100%) who presented suspicious mother-baby bond alteration had mothers who didn't talk during the suckle and these variables had significant association. Xavier (2003) affirms that the dialogue is early developed between a mother and her baby, since she feeds him. The quality of the initial contact between mother and her baby is part of the newborn evaluation. An adequate bond establishment in the following days of the birth is the first warranty for the normal newborn that future development crisis will have a favorable solution. For the premature, ill or involved in adverse socio-economic conditions newborns, the interaction may represent a difference between negligence and bad treats and the possibility of a healthy childhood (Baldiniv & Krebs, 2001). There are mothers who verbalize more than others independently of the baby behavior. The environment must be observed and if the baby does not make this vocalizing procedure difficult. The mother needs, sometimes, to be alone to feel more comfortable and "talk" to her baby (Xavier, 2003). Baldiniv & Krebs (2001) stressed that the prematurity is a traumatic experience for the mother and surrounds the newborn with interactional deficits. The importance of paying attention at the baby during the suckle searches always the observation of the eye contact occurrence, and may indicate two signs of mother-baby interaction problems: the absence of tactile and acoustic contact. An altered bond situation may involve measures such as the postponing of the hospital discharge, among others.

Conclusion

This study allows to conclude that the variables associated with the proper nutritive sucking were posture in MB, the nipple compression, the sucking, swallowing and breathing coordination, the sucking strength, the maintenance of the sucking strength, the rhythm, the alert state, and the suspicious mother-baby bond alteration being constituted in the difficulties of establishing the suckling in this sample. Even though, the prevalence of mixed feeding was 60%.

Although with limitations regarding the sample size that does not allow generalizing its conclusions, this study permitted to glimpse some practical implications for the suckling stimulation.

It was evidenced by the speech therapist intervention in the Neonatal UTI that it is possible to detect, through oral and observational evaluations, the initial disorders that are, many times, modifiable, and that place the feeding process at risk. Considering the importance of suckling for the child's development, the speech and hearing pathologist actuation inserted in a multidisciplinary staff may add specific aspects of oral motor dysfunction prevention, enabling the other professionals to refer these cases for an effective speech and hearing treatment, whenever necessary.

The fact that the proper suckle was associated significantly with the suspicious mother-baby bond alteration, although it has to be analyzed carefully due to the study limitations, is a theme that must be studied in future researches because of the unfolding and the impact that this might cause in the healthy mental development of the child. Being able to early detect inadequate bonds through the suckling observation may be a simple and effective way to prevent the at risk children for mental health and communication disorders.

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Apêndice

Protocolo de Avaliação Fonoaudiológica do Sistema Estomatognático (SE)

Avaliação das estruturas do SE

1. Simetria das hemifaces

- sim
 não

2. Postura de lábios

- c/ vedamento
 s/ vedamento

3. Tonicidade labial

- normal
 hipertônicos
 hipotônicos

4. Postura de língua

- retraída
 protruída
 soalho da boca
 ponta na papila
 dorso elevado

5. Conformação de língua adequada

- sim
 não

6. Tonicidade lingual

- normal
 hipertônica
 hipotônica

7. Tonicidade de bochechas

- normais
 hipertônicas
 hipotônicas

8. Presença de coxins

- sim
 não

9. Palato duro

- normal
 ogival

Avaliação dos reflexos orais

1. Reflexo de busca
 adequado
 ausente
 exacerbado
 débil

2. Reflexo de sucção
 adequado
 ausente
 exacerbado
 débil

3. Reflexo de mordida
 adequado
 ausente
 exacerbado
 débil

4. Reflexo de engasgo
 adequado
 ausente
 exacerbado
 débil

Avaliação da sucção não-nutritiva (SNN)

1. Sucção elicitada facilmente
 sim
 não

2. Vedamento labial na SNN
 sim
 não

3. Língua na SNN
 canolamento
 protrusão
 posteriorização
 tremores

4. Mobilidade funcional de língua na SNN
 sim
 não

5. Movimento ântero-posterior de mandíbula
 sim
 não

6. Movimentos alterados de mandíbula
 abertura exagerada
 trancamento
 tremores
 não apresenta

7. Ritmo
 sim
 não

8. Número de eclosões por pausa
___ x 1

9. Força
 adequada
 moderada
 débil

10. Sustentação da força
 sim
 não

Avaliação da sucção nutritiva (SN)

1. Adequação da postura ao SM
 sim
 não

2. Adequação da preensão do mamilo
 sim
 não

3. Vedamento labial na SN
 sim
 não

4. Língua na SN
 canolamento
 protrusão
 posteriorização
 tremores

5. Mobilidade funcional de língua na SN
 sim
 não

6. Movimento ântero-posterior de mandíbula
 sim
 não

7. Movimentos alterados de mandíbula
 abertura exagerada
 trancamento
 tremores
 não apresenta

8. Ritmo
 sim
 não

9. Número de eclosões por pausa
___ x 1

10. Força
 adequada
 moderada
 débil

11. Sustentação da força

- sim
- não

12. Coordenação da sucção-respiração-deglutição

- sim
- não

13. Estado de consciência durante a mamada

- sono profundo
- alerta
- sono leve
- irritação

sonolência

- choro

14. Sinais de estresse

- escape de leite
- soluço
- engasgo
- cianose
- queda de saturação
- palidez
- choro
- não apresenta

Avaliação de sinais de vínculo mãe - bebê

1. Bebê mantém estado de alerta

- sim
- não

2. Modo da mãe segurar o bebê

- firme, com confiança
- com dificuldade de manipular
- de maneira frouxa

3. Contato visual

- mantém contato todo o tempo
- faz contato eventual
- ausência de contato visual

4. Contato físico

- toques maternos durante a mamada
- ausência de toques

5. Mãe conversa com o bebê

- sim
- não

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