Non-verbal communication during child care by mothers with Human Immunodeficiency Virus

Comunicação não-verbal durante cuidados prestados aos filhos por mães com Virus da Imunodeficiência Humana

Comunicación no-verbal durante cuidados prestados a los hijos por madres con Virus de la Inmunodeficiencia Humana

Simone de Sousa Paiva¹, Marli Teresinha Gimeniz Galvão², Lorita Marlena Freitag Pagliuca³, Paulo César de Almeida⁴

ABSTRACT

Purpose: To examine the non-verbal communication during child care by mothers with the human immune deficiency virus (HIV).

Methods: This study was conducted in the second semester of 2007 in an experimental setting with 5 HIV positive mothers. Data were collected through videotaping during child care such as bathing, clothes changes, feeding, playing, and cuddling. Data analysis focused on the aspects of non-verbal communication. Results: Statistical analysis indicated differences between the mother and the child in all aspects of non-verbal communication during child care. Clothes changes and bathing were the most instrumental child care. Non-verbal communication is used by mothers to show affection and to perceive abnormalities. Conclusion: The study's findings suggest the need to encourage mothers to interact with the child during all aspects of child care to promote normal child development.

Keywords: HIV; Mother-child relations; Nonverbal communication.

RESUMO

Objetivo: Analisar a comunicação não verbal durante os cuidados prestados a filhos menores de seis meses por mães portadoras do vírus da imunodeficiência humana (HIV). Métodos: Estudo desenvolvido em ambiente experimental com cinco mães HIV+, no segundo semestre de 2007. Utilizou-se como recurso de coleta de dados a filmagem de cuidados maternos (banho, troca de roupas, mamadeira, brincar e ninar) dispensados ao filho. As cenas foram analisadas em face dos aspectos da comunicação não-verbal. Resultados: Análise estatística indica diferença entre os cuidados em todas as manifestações da comunicação. Entre os cuidados, a troca de roupas e o banho foram os cuidados mais instrumentais. A comunicação não-verbal é utilizada pela mãe para demonstrar apego ao filho e para perceber anormalidades. Conclusão: Os resultados demonstram necessidade de incentivar a mãe a interagir com seu filho durante todos os cuidados, promovendo estímulos para o desenvolvimento infantil.

Descritores: HIV; Relações mãe-filho; Comunicação não verbal.

RESUMEN

Objetivo: Analizar la comunicación no verbal durante los cuidados prestados a hijos menores de seis meses por madres portadoras del virus de la inmunodeficiencia humana (HIV). Métodos: Estudio desarrollado en ambiente experimental con cinco madres HIV+, durante el segundo semestre de 2007. Se utilizó como recurso de recolección de datos la filmación de cuidados maternos (baño, cambio de ropas, mamadera, jugar y arrullar) dados al hijo. Las escenas fueron analizadas bajo los aspectos da comunicación no-verbal. Resultados: El análisis estadístico indica una diferencia entre los cuidados en todas las manifestaciones de la comunicación. Entre los cuidados, el cambiar de ropas y el baño fueron los cuidados más instrumentales. La comunicación no-verbal es utilizada por la madre para demostrar apego al hijo y para percibir anormalidades. Conclusión: Los resultados demuestran la necesidad de incentivar a la madre a interactuar con su hijo durante todos los cuidados, promoviendo estímulos para el desarrollo infantil.

Palabras clave: HIV; Relaciones madre-hijo; Comunicación no verbal.

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INTRODUCTION

Pregnancy is understood as a process occurring in the period of time between conception and birth. Maternity, however, goes beyond pregnancy. Both involve important changes in a woman's life, requiring successive, long-term adaptations\(^1\). As it is well-known, the future mother's body is renewed and she becomes responsible for caring for another human being.

As with all development crises, pregnancy and maternity upset the balance of an individual's life cycle. According to the way a crisis is experienced, such imbalance can be greater or smaller. As regards women with the Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome (HIV/AIDS), in addition to the imbalance caused by giving birth to a child, there are the peculiarities of seropositivity\(^2\). Thus, this period of crisis could be greater for a woman in such condition, when compared to what is ordinarily experienced by a pregnant woman. In these circumstances, when HIV is involved, maternal care provided to a child may be affected.

Since the first days of life with the baby, the mother begins to care for it. Throughout the postpartum period, the new mother identifies herself with this role and starts to perform it better\(^3\). In this way, she concretely establishes the relationship she will have with the child during their lives.

However, when finding out she has a disease that may affect her child, as is the case of maternal HIV seropositivity, the mother could have feelings of guilt\(^4\) and anxiety, once she expects to have a healthy child, like any mother. Above all, in view of such situations, the care a mother provides to her baby could be influenced and, as a result, communication could be compromised.

Communication is present since the first contact between mother and child. From the moment of birth, the face is a powerful means of interaction between adult and infant, it draws its attention and causes a feeling of well-being, indispensable to its process of socialization\(^5\). Apart from the face, other nonverbal expressions occur between mother and child, such as maternal caressing and the infant's crying and babbling. All these expressions are forms of nonverbal communication (NVC). The communicative process between mother and baby is rich in expressions. In this process, the first contacts occur with the purpose of enabling mutual knowledge and the establishment of affection.

After birth, the child is completely dependent on care from an adult, usually the mother. The moment of maternal care should be an opportunity of dialogue between mother and child to establish a healthy relationship. Thus, it cannot be restricted to the simple performance of actions. To achieve this, it is necessary that professionals assess maternal care by observing communication between mother and child, especially nonverbal communication, the usual language in this relationship, while care is being provided.

The present study aimed to analyze the non-verbal communication during child care by mothers with the human immune deficiency virus (HIV)
child’s type of touch and maternal type of touch. Each guide, filled out by each of the judges, corresponded to the mother-child interactions, with the five mother-child pairs totaling 344 interactions in all. In the present study, there was no sample loss.

Observation guide records were grouped according to type of maternal care and statistically analyzed to quantify the interactions found and their variables. The SPSS software was used to process data. Proportion and association analyses were performed (Z and X2 tests), with a 1% significance level.

As required, the present study was approved by the Universidade Federal do Ceará Research Ethics Committee, under Protocol 151/07. Mothers were invited to participate in the study in health institutions and in a non-governmental organization, in the city of Fortaleza (CE), Brazil. Those who showed an interest went to become acquainted with the LabCom_Saúde and only then decided to participate in the study or not. Upon acceptance, a day for filming was booked. They were subsequently asked to sign an Informed Consent Form. In view of the anonymity of participants, each mother-child pair was assigned a number, according to the order of participation (from 1 to 5).

RESULTS

As regards age, mothers were between 18 and 34 years, whereas babies were aged between 39 and 175 days. They reported that they had been aware of their HIV diagnosis for a year at least and four years at most and that they had a stable relationship with their partners. Of these, only one was HIV seropositive. Per capita income varied between US$ 95.00 and US$ 315.00 per month. At the time of this study, one minimum wage was US$ 693.00. However, one mother reported not having an income. According to the majority of mothers, children were desired and they had all undergone a cesarean section. Babies were born between the 36th and 37th week of pregnancy; they had a proper weight, between 2,500 and 3,500 grams; and they did not show any diseases or malformations. All mothers used AZT® (Zidovudine), as required in the case of HIV. However, only three reported having begun to take it at three months of pregnancy. Table 1 shows data on the association among variables, maternal care and NVC factors.

In addition, Table 1 shows the association between maternal care variables and nonverbal communication factors, described as paralanguage, synesthesia, distance, visual contact, tone of voice, and child and maternal touch. There was a statistically significant difference (p< 0.0001) among the five types of maternal care in terms of all nonverbal communication manifestations.

As shown in Table 1, the type of care including the highest number of interactions to be performed was changing clothes (N=95), followed by cuddling (N=78) and feeding (N=73). During bathing, there were 53 interactions between mother and child, while, during playing, there were 45 interactions.

By analyzing paralanguage (X2 71.12; p<0.0001), the moment of changing clothes is when the child makes most vocalizations (31.6%). By observing sounds produced by the mother, a similarity to those made by the children was identified (28.4%), with the highest frequency of this category occurring during playing (68.9%). An absence of paralanguage in more than half of the interactions occurring while cuddling (57.7%) was also found. Likewise, during bathing, there was an absence of interactions between mother and child (43.4%).

In terms of synesthesia, (X2 52.61; p<0.0001), the side/back position was the most frequent (62.2%). On the other hand, the face-to-face position predominated while playing (97.8%). As regards the “distance” factor (X2 79.67; p<0.0001), the intimate distance between mother and child was identified in all interactions of feeding and cuddling, with a lower frequency in changing clothes (61.1%). However, visual contact (X2 20.26; p<0.0001) occurred in all bathing, feeding and playing scenes, although with less frequency during cuddling (89.7%).

Another observation was that a low tone of voice and whispering occurred more frequently while playing (24.4% and 55.6%, respectively), whereas a high/normal tone of voice was more usually found during bathing (22.7%). In contrast, silence occurred during changing clothes and cuddling (X2 46.36; p<0.0001).

As regards child touching behavior, the baby turned towards the mother most frequently while playing (82.2%) and least frequently while cuddling (29.5%). As observed, bathing was the moment when the child most often turned (or was turned) away from the mother (X2 46.81; p<0.0001).

In terms of touching caused by the mother (X2 116.05; p<0.0001), or yet “maternal tactile behavior”, touching a certain area of the baby’s body was more frequent while changing clothes (88.4%). Grasping occurred more frequently during playing (40%) and caressing was the type of touch most frequently identified during cuddling (25.7%). In contrast, smiling was more usual while playing (15.5%).

DISCUSSION

In ordinary daily activities, such as playing, feeding, changing clothes and bathing, the mother-child connection develops. As evidenced, the infant’s vocalizations could have the intention of asking for something, complaining or making a comment, findings recorded by a study on maternal sensitivity during the baby’s bathing and changing clothes. While clothes are changed, the child is handled and may feel a change in temperature when it is undressed. These vocal communications could suggest the child is feeling some type of discomfort, something it wishes to tell its mother.

While changing clothes, the mother shows a number of paralinguistic vocalizations that are similar to the child’s. In general, sounds made by the mother can be associated with the desire to draw her child’s attention when handling it or as a response to its vocalizations.

During playing, the mother tries to call her child’s attention to a toy by using frequent vocalizations. The mother is the one who makes the toy become always new and attractive to the child, especially by using strategies to call its attention.

Furthermore, as observed, the side and back position is frequently adopted during bathing and this is due to the bathtub’s position, perpendicular to the mother and on a table. The mother constantly needed to pick up an object (soap, shampoo, towel).
Table 1. Association between maternal care variables and nonverbal communication factors. City of Fortaleza (CE), Brazil, 2007.

<table>
<thead>
<tr>
<th>Type of maternal care</th>
<th>Changing clothes N (%)</th>
<th>Bathing N (%)</th>
<th>Feeding N (%)</th>
<th>Cuddling N (%)</th>
<th>Playing N (%)</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paralanguage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child makes sounds</td>
<td>30 (31.6)</td>
<td>11 (20.7)</td>
<td>9 (12.3)</td>
<td>1 (1.3)</td>
<td>2 (4.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother makes sounds</td>
<td>27 (28.4)</td>
<td>10 (18.9)</td>
<td>30 (41.1)</td>
<td>21 (26.9)</td>
<td>31 (68.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oth make sounds</td>
<td>7 (7.4)</td>
<td>9 (17)</td>
<td>6 (8.2)</td>
<td>11 (14.1)</td>
<td>4 (8.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence*</td>
<td>31 (32.6)</td>
<td>23 (43.4)</td>
<td>28 (38.4)</td>
<td>45 (57.7)</td>
<td>8 (17.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synesthesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>52.6</td>
<td>0.0001</td>
</tr>
<tr>
<td>Side/back</td>
<td>28 (29.5)</td>
<td>-</td>
<td>-</td>
<td>18 (23.4)</td>
<td>1 (2.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>67 (70.5)</td>
<td>20 (37.7)</td>
<td>61 (83.6)</td>
<td>59 (76.6)</td>
<td>44 (97.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>79.6</td>
<td>0.0001</td>
</tr>
<tr>
<td>Intimate</td>
<td>58 (61.1)</td>
<td>-</td>
<td>-</td>
<td>78 (100)</td>
<td>44 (97.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>37 (38.9)</td>
<td>13 (24.5)</td>
<td>-</td>
<td>-</td>
<td>1 (2.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.2</td>
<td>0.0001</td>
</tr>
<tr>
<td>With contact</td>
<td>93 (97.9)</td>
<td>-</td>
<td>-</td>
<td>70 (89.7)</td>
<td>45 (100.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without contact</td>
<td>2 (2.1)</td>
<td>-</td>
<td>-</td>
<td>8 (10.3)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tone of voice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.3</td>
<td>0.0001</td>
</tr>
<tr>
<td>Low</td>
<td>19 (20)</td>
<td>12 (22.6)</td>
<td>16 (21.9)</td>
<td>9 (11.5)</td>
<td>11 (24.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whispering</td>
<td>14 (14.7)</td>
<td>7 (13.2)</td>
<td>14 (19.2)</td>
<td>22 (28.2)</td>
<td>25 (55.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High/normal</td>
<td>14 (14.7)</td>
<td>12 (22.7)</td>
<td>12 (16.4)</td>
<td>9 (11.6)</td>
<td>5 (11.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silence</td>
<td>48 (50.6)</td>
<td>22 (41.5)</td>
<td>31 (42.5)</td>
<td>38 (48.7)</td>
<td>4 (8.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactile NVC/child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>46.8</td>
<td>0.0001</td>
</tr>
<tr>
<td>Turns toward the mother</td>
<td>39 (41)</td>
<td>17 (32.1)</td>
<td>44 (60.3)</td>
<td>23 (29.5)</td>
<td>37 (82.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turns away from the mother</td>
<td>26 (27.4)</td>
<td>23 (43.4)</td>
<td>17 (23.3)</td>
<td>26 (33.3)</td>
<td>5 (11.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence*</td>
<td>30 (31.6)</td>
<td>13 (24.5)</td>
<td>12 (16.4)</td>
<td>29 (37.2)</td>
<td>3 (6.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tactile NVC/mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1160</td>
<td>0.0001</td>
</tr>
<tr>
<td>Touching a certain area</td>
<td>84 (88.4)</td>
<td>41 (77.3)</td>
<td>42 (37.5)</td>
<td>27 (34.6)</td>
<td>17 (37.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grasping</td>
<td>6 (6.3)</td>
<td>9 (17)</td>
<td>28 (38.4)</td>
<td>30 (38.4)</td>
<td>18 (40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caressing</td>
<td>-</td>
<td>2 (3.8)</td>
<td>1 (1.4)</td>
<td>20 (25.7)</td>
<td>3 (6.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smiling</td>
<td>4 (4.3)</td>
<td>1 (1.9)</td>
<td>2 (2.7)</td>
<td>1 (1.3)</td>
<td>7 (15.5)</td>
<td></td>
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</tr>
</tbody>
</table>

*Occurrence was not observed.

To do this, she would hold the baby in one of her hands, supporting it from its abdomen and chest, once a very small child is, in general, slightly curved. Thus, it is easier for her to hold it with one hand in the position described, while the other hand picks up the desired object. As a result, the child’s back was turned to the mother.

According to the literature, children’s games are moments of constant observation, reflection and action of parents towards them\(^\circ\). Even unintentionally, parents observe their children’s behavior and assess their development and abilities. This assessment becomes possible with the constant visual contact and close position, facing the child. Thus, the greater occurrence of such position during playing is justified. This fact becomes significant due to the mothers being HIV positive. They need to be sure of their child’s well-being and diagnosis, yet undefined because it was made while this infection was considered incurable.

In terms of distance, this is explained by the organization of the environment for each type of care. Distance is directly influenced by the type of maternal care performed. In the present study, the place used for cuddling and feeding was an armchair,
where the mother necessarily had to put the child in her lap, close to her, so these two types of care could be performed, with a table close by where the bottle and toys were. On the other hand, the place where the baby's clothes were changed was a piece of furniture whose height was close to the mother's pelvic region. The child stayed in its middle, at a certain distance from the mother, who remained standing and facing the child. This position increased the distance to put away or pick up the baby's clothes and to reach a certain object. In this case, however, the distance was unintentional, although necessary to reach objects. Nonetheless, these distances should be avoided, because they may cause accidents, such as falls.

In general, visual contact with the mother complements the desire to have a relationship with the child while caring for it. By looking at it, the mother transmits tranquility and safety to her child. Mothers have a strong need to see their children, to look at them beyond appearances.

While the definitive diagnosis of the infection is not established, children born from HIV seropositive mothers are considered to have a chronic disease. This process may take up to two years. In this case, the child's chronic disease becomes an important mediator of the quality of interaction between the mother and her baby. Thus, to look attentively at the child is a way to find out if everything is going well with it, whether it is healthy and protected.

However, during cuddling, as expected, the baby will sleep at a given moment. This is when visual contact ends. In view of the child's quiet state, the mother can look at her environment without concern. This attitude could explain the absence of visual contact in the majority of cuddling scenes.

According to what has been published, the tone of voice is regulated by the distance and position adopted. In the present study, the data found confirm this fact. However, the silence observed in the majority of “changing clothes” scenes is associated with the active nature of this type of care, such as bathing, when the mother is more attentive to the procedure, rather than to the communication. In addition, as regards the tone of voice, a high tone usually upsets small children. Noises interfere with sleep, causing stress, crying, fatigue and irritability. As a result, the predominance of silence during cuddling is adequate.

In terms of the baby's touching behavior, to turn towards the mother in an action that shows interest in the act of playing. During cuddling, the child is sleepy, becoming more passive and not showing any movements. In contrast, while bathing, which was more frequent in the “turns away from the mother” category, the child is constantly handled by the mother. This includes the time when her back is turned to her child, as a result of the technique used in this type of care, when she passively stays in this position. When referring to the type of maternal touch in each type of care performed, the most frequent type observed while changing clothes is touching a certain area of the baby's body and this stresses the active nature of this type of care. According to a researcher, changing diapers is not the moment when mothers showed care or some other feeling towards their children.

Authors believe filming could have influenced this more technical type of maternal care. As changing clothes was the first type of care performed, the mother could have felt apprehensive at that moment, due to the strange environment and the presence of a video camera.

Probably, mothers are afraid to be exposed in a study that includes video recording. In this way, their behavior is influenced, once a video is a concrete record of their participation in the study as HIV seropositive individuals. This is a fact that they try to keep secret, including from family members, due to the fear of being judged and of social exclusion. However, in the case of the present study, the mother was approached before filming and her questions were clarified, aiming to familiarize her with the new environment. At the same time, research ethical aspects and anonymity were explained, with the purpose of calming her down.

As regards caressing, a study on maternal responsiveness during bathing and dressing babies found that caressing showed a very low frequency, thus corroborating the present study. In contrast, during cuddling, the child is frequently kept in its mother's arms. For the baby, cuddling represents the uterine movements it was accustomed to during pregnancy. It has a soothing effect, necessary to make the baby sleep.

Playing is a routine activity in which the mother becomes involved, especially with small children. A play activity results in smiles and joy. More frequently present during playing, a smile is a manifestation of joy and satisfaction as the mother realizes that her child is curious and active, interacting with the world. These are signs of health for her.

CONCLUSIONS

The present study contributed to the exercise of nursing care for the mother-child pair, pointing out important aspects in the development of the affective relationship between them, as exemplified by the affective communication that takes place during maternal care.

In general, while performing maternal care, mothers use NVC to stimulate and assess their children, identifying signs of health and normality.

By assessing the communicative process between mother and child throughout maternal care, changing clothes and bathing are active activities with deficient communication/interaction, when compared to other types of care, once the mother's attention is focused on the performance of the task, which requires ability. These results show that it is necessary to stimulate the mother to interact with her child when performing these types of care, thus promoting stimuli for child development, while bathing and changing clothes.

As a limitation to this study, there was the impossibility to affirm whether the different aspects of nonverbal communication found are exclusive of the mother-child pairs, whose mothers are HIV positive.

Thus, it is suggested that this issue should be further investigated, with the performance of studies that compare care between HIV positive mothers and HIV negative mothers, in addition to investigations conducted in a natural environment, aiming to contribute to a more accurate diagnosis of aspects of the mother-child communication at an early age.
REFERENCES


