

An Analysis of Communication between Inpatient Children and Their Mothers

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Abstract Communication between inpatient children and their mothers in an university hospital was analyzed. Fifty-six units of conversation of 8 mother-child pairs were recorded and units of conversation were classified into 6 types according to mother's response; Type I good response, Type II repair, Type III good response discontinuation, Type IV response setback, Type V rejective ending, and Type VI rejection.

Main results were as follows; 1) Communication types indicating good responses were observed in all the pairs, and Type I occupied 73%. 2) Types indicating interruption or rejection, however, were also observed in all the pairs. 3) Among background factors of the subjects, only mother's age was associated with the communication types. Scenes of rejection were significantly less frequent in mothers aged 30 years or more. 4) There was large variation of proportion of types of conversation; most responses were good in one case, whereas most responses were rejective responses in another case. Mothers need to have sensitiveness concerning communication with their child and need to accept child's feeling. Nursing intervention for enabling this appears to be necessary and important.

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Key Words : communication analysis, inpatient children, nursing intervention

Introduction

There have been many studies on inpatient children in terms of their anxiety of inpatient children due to separation from their mothers, and on fatigue of mothers due to attendance on their children^{1) 2) 3) 4)}. However, many of these studies focused on either mothers or children, and few of them assessed the mother-child relationship. To evaluate the relationship between inpatient children and their mothers who closely live all day in of hospital, we analyzed their communication types in various settings.

This investigation aimed to clarify the communication between inpatient children and their mothers and evaluate appropriate nursing support.

Subjects and Methods

Subjects

Subjects were inpatient children and their mothers without definite communication disorders at a pediatric ward of the Nagasaki university hospital. We asked to head nurse to select subjects which suit

for the following condition; a pair of a preschool aged child and his/her mother who is taking care for all her day long. We asked mothers to allow us to observe communication between them, and selected the subjects who agreed.

The survey period in the hospital was from July 17-September 1, 1995.

Ten mother-child pairs were observed during this period.

Investigation

Qualitative data were derived from communication and observation of behavior. The direct observation method is one of qualitative data collection method^{5) 6)}. We collected the data based on it. To observe as natural communication as possible, children hospitalized in large common rooms and their mothers were observed by two investigators. One of them had contact with the children and mothers, and the other recorded the mother-child relationship in field notes as a neutral observer so that the presence of the investigators would not be

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unnatural.

The investigators serially recorded verbal and non-verbal mother-child communication in "drug administration", "meals", "play" and so on. In addition, investigators' impressions of each communication scene were also noted. Data on the background of each family were collected from medical records and hearing from nurses.

When communication was used to achieve a certain purpose such as "drug administration" or "meal", the period from the initiation of communication to the achievement of the purpose including interruption periods were regarded as one communication unit. When communication itself was a purpose such as in "play," the period from the initiation of interaction to its discontinuation was defined as one communication unit.

Analysis methods

Of the 10 mother-child pairs, 8 pair with more than 5 units of communication, Case A to H were used as the subjects of analysis. Based on Nakajima's study⁴⁾, the mother-child communication was classified as shown in Table 1. Children's words and behavior were classified as follows: (1) attachment for their mothers, (2) neither attachment nor rejection, and (3) rejection of their mothers. Mother's responses were classified as follows: (1) Attention was directed to her child, and her responses were consistent with child's words and behavior. (2) Attention was directed to her child, but her responses were inconsistent with child's words and behavior. (4) Attention was directed to herself, but she did not reject child's appeals. (5) Attention was directed to herself, and her responses to her child were rejective. Responses that could not be included in the above categories were classified as (3).

According to this classification, the flow of mother-child communication in one case is schematically shown in Fig 1 as an example. Child's words and behavior (1) - (3) plotted on the left side of the midline were connected with mothers responses (1) - (5) plotted on the right side along the time axis. As shown in Fig. 2, these communication patterns schematically shown were classified into the following 6 types as reported in our previous study⁷⁾.

Type : Mother's attention was directed to her child irrespective or child words and behavior,

showing good responses (good response type).

Type : Mother's responses were temporarily inconsistent with child's words and behavior or rejection but finally became good (repair type).

Type : The mother initially made efforts, showing good responses, but good responses were discontinued halfway (good response discontinuation type).

Type : The mother soon gave up responding to reject words and behavior of her child (response setback type).

Type : The mother tried to make good responses but finally rejected her child (rejective ending type).

Type : The mother rejective words and behavior of her child irrespective of child's words or behavior (rejection type).

Table 1. Classification of contents of communication

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| <p>< Child's words and behavior ></p> <p>(1) Attachment attachment for mother</p> <p>(2) Neither neither attachment nor rejection</p> <p>(3) Rejection rejection for mother</p> <p>< Mother's responses ></p> <p>(1) Attention directed to her child, responses consistent with child's words and behavior</p> <p>(2) Attention directed to her child, responses inconsistent with child's words and behavior</p> <p>(3) Others</p> <p>(4) Attention directed to herself, non-rejective responses to child's words and behavior</p> <p>(5) Attention directed to herself, rejective responses to child's words and behavior</p> |
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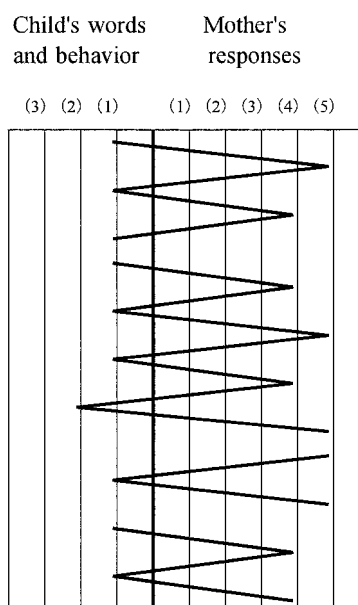


Fig. 1 A scheme of communication scene

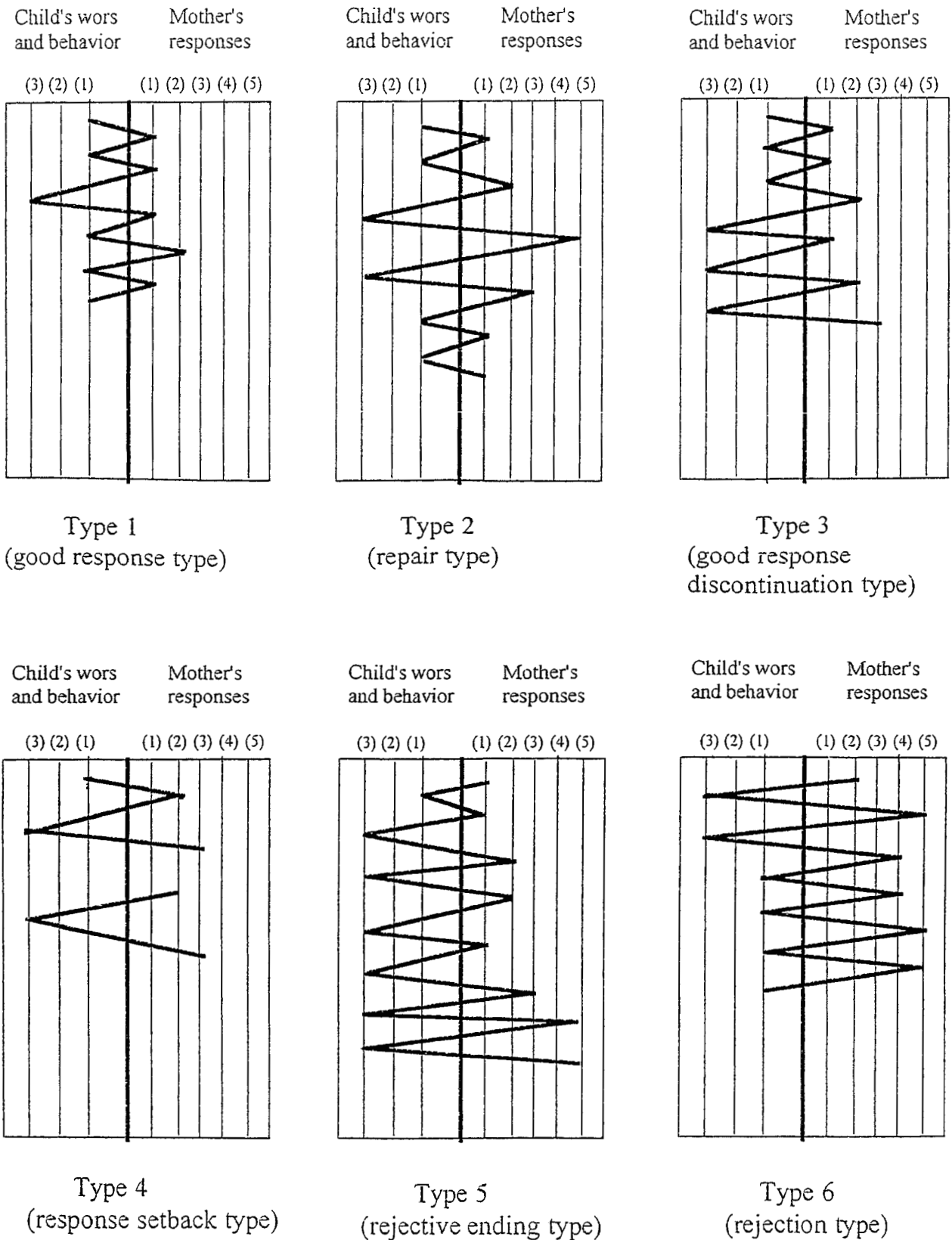


Fig. 2 Communication types

Results

Background factors of the subjects

The background of the subjects are shown in Table 2. There were 6 male children and 2 female children aged 11 months-6 years. Malignant

diseases such as acute leukemia, neuroblastoma, and brain tumors were frequently observed. The duration from the initial onset of the disease varied from 2 weeks to 2 years and 10 months. The present hospitalization period varied from 2 weeks

to 5 months. None of the children received chemotherapy during the investigation period.

Concerning the family background, one child had no siblings, and all children had a nuclear family. Their mothers age ranged from 26 to 42 years.

Table 2. Background of subjects

| Case | sex | age | disease | duration from onset | present hospitalization period | mother's age |
|------|--------|-----------|---------------------|-----------------------|--------------------------------|--------------|
| A | Male | 3 years | ALL | 1 month | 1 month | 27 years |
| B | Male | 6 years | AML | 2 years and 10 months | 5 months | 38 years |
| C | Male | 6 years | ALL | 10 months | 3 weeks | 33 years |
| D | Male | 2 years | NB | 1 year | 1 month | 38 years |
| E | Female | 3 years | BT | 2 months | 2 months | 42 years |
| F | Male | 11 months | NB | 3 months | 3 months | 26 years |
| G | Female | 2 years | ITP | 2 weeks | 2 weeks | 37 years |
| H | Male | 2 years | congenital myopathy | 5 months | 5 months | 27 years |

ALL: acute lymphocytic leukemia, AML: acute myeloid leukemia, NB: neuroblastoma, BT: brain tumor, ITP: idiopathic thrombocytopenic purpura

Association between frequencies of the communication types and background factors.

Proportion of communication types for each pair are shown in Fig. 3.

Case A: A 3-year-old male with acute lymphocytic leukemia (ALL) of the initial onset. He was admitted 1 month before and was receiving continuous drip infusion and oral administration. He had a 5-year brother, and his mother was 27 years old. According to the communication types, type I was observed at 5 scenes (62.5%), type II at 1 (12.5%), and type III at 2 (25.0%). At the 2 rejective scenes, his mother was absorbed in what she was doing and responded to him inattentively.

Case B: A 6-year-old male with AML 2 years and 10 months after the initial onset. He was admitted 5 months before for periodic treatment and was receiving drip infusion and oral administration. He had no siblings, and his mother was 38 years old. Type I was observed in 6 scenes (66.7%), type II in 2 (22.2%), and type III in 1 (11.1%). He rarely played the baby to his mother, or the mother rarely expressed her affection by behavior. However, this pair was always calm, and good responses were frequently observed.

Case C: A 6-year-old male with ALL 10 months after the initial onset. He was admitted 3 weeks before for periodic treatment by oral administration. He had no siblings, and his mother was 33 years old. Type I was observed in 5 scenes (83.3%) and type II in 1 (16.7%). He had stomachache and no appetite as side effects of chemotherapy. His mother understood his condition and constantly

showed good responses.

Case D: A 2-year-old male with neuroblastoma that recurred after termination of treatment 1 year before. He was admitted before 1 month and was receiving continuous drip infusion and oral administration. He had a 6-year-old sister and a 5-year-old brother, and his mother was 38 years old. Type I was observed in 6 scenes (75.0%) and type II in 2 (25.0%). Despite recurrence of the disease, his mother was composed and carefully responded to the child.

Case E: A 3-year-old female with brain tumor of initial onset. She was admitted 2 months before and was receiving drip infusion and oral administration and sometimes complained of pain in the lower limbs. She had a 6-year-old brother, and her mother was 42 years old. Type I was observed in 8 scenes (88.9%) and type V in 1 (11.1%). The mother generally showed good responses though some rejective responses were also observed.

Case F: A 2-year-old male with neuroblastoma of initial onset. He was admitted 3 months before and was receiving drip infusion. He had a 5-year-old sister, and his mother was 26 years old. Type I was observed in 4 scenes (80.0%) and type IV in 1 (20.0%). Though good communication was frequently observed, the mother sometimes responded to the child in a strong tone.

Case G: A 2-year-old female with idiopathic thrombocytopenic purpura 2 weeks after the initial onset. She was receiving drip infusion and oral administration. She had a 5-year-old sister, and her mother was 37 years old. Type I was observed in 5 scenes (83.3%) and type II in 1 scene (16.7%). Since only a short period had passed since admission, the mother gave the impression that she was perplexed with the hospital life and did not know how to respond to the child with a disease. However, her responses were generally good; she was gentle to the child and did not scold her child, raising her

Case H: A 2-year-old male with congenital myopathy 5 months after the initial onset. He was receiving continuous drip infusion and oral administration. He had a 3-year-old sister, and her mother was 27 years old. Type I was observed in 2 scenes (40.0%), type V in 2 (40.0%), and type VI in 1 (20.0%). His mother tended to become emotional, which put her child into a bad mood. Thus, they affected each other, resulting in many rejective responses.

In most mother-child pairs, type I indicating good responses was observed in more than 80% of the scenes. On other hand, the types indicating interruption or rejection were observed in all pairs.

The association between the communication types and background factors (such as the duration after the initial onset, the present hospitalization period, child's age, the presence or absence of hospitalization history, mother's age, the presence or absence of siblings) was analyzed after the communication types were classified into the good communication types (types I-IV) and the rejection types (types V and VI). The communication types were associated only with mother's age. In the mothers aged 30 years or more, good types were observed at 36 scenes and rejection types at 1.

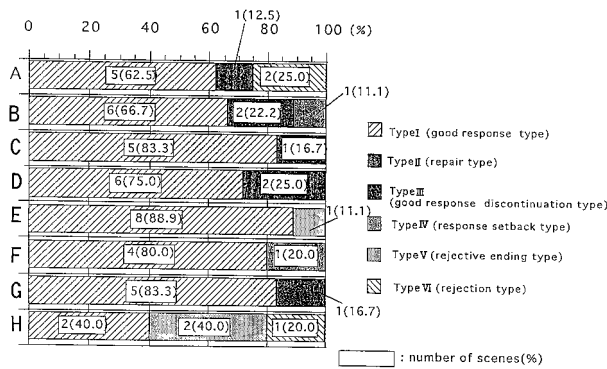


Fig. 3 Ratios of communication types in each pair

Case presentation

Two cases (Cases C and H) in which characteristic scenes were observed are introduced here.

Fig. 4 shows schematic representation of 1 "drug administration" scene in Case C. The mother encouraged the child to take medicine, but he rejected it, saying, "Later" or "I have a stomachache." His mother said to him, "You can take medicine even though you have a stomachache", or "If you take medicine, the stomachache will improve." Finally, he said, "Wee-wee.", and the mother gave up encouraging him to take medicine.

Fig. 5 shows schematic representation of 1 "meal" scene and 1 "play" scene in Case H. In the "meal" scene, his mother tried to make him eat before he goes to sleep. However, the child was unwilling to eat food that her mother brought to his mouth. He appeared to request something by saying "Mamma.", but his mother could not understand what it means. He continued to appeal desperately while disgust increased in the mother, resulting in unsuccessful communication. In the "play" scene, the child talked to his mother in a good mood, and she also responded gently, saying, "What?"

The two cases were compared. In Case C, the mother showed good responses despite reject behavior of her child but granted his request of "wee-wee." interrupting her efforts to make him

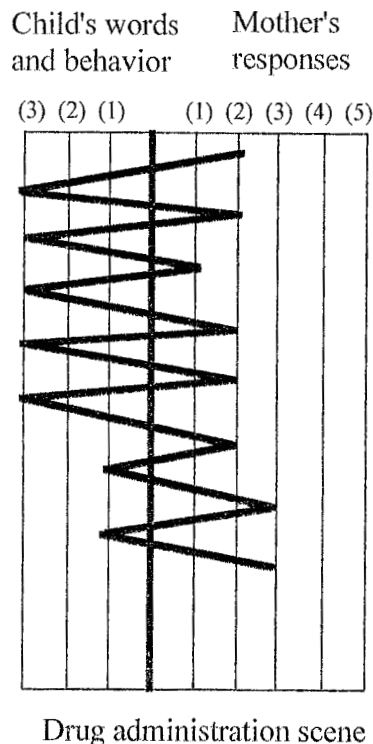


Fig. 4 A communication scene of Case C

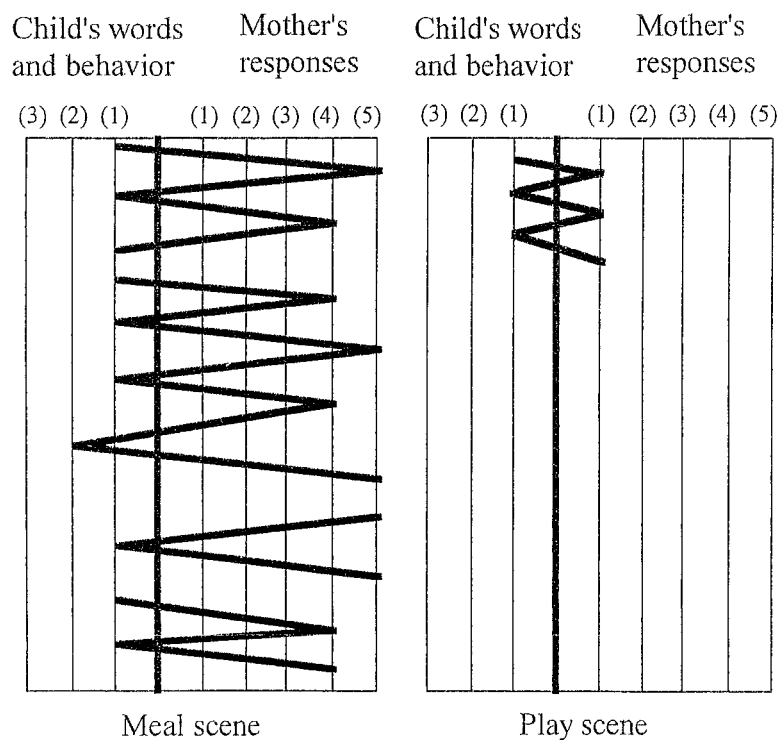


Fig. 5 A communication scene of Case H

take medicine. In Case H, his mother showed good responses when the child was in a good mood. However, in the "meal" scene, she interpreted "Mamma" as food because the word generally means it. On the other, the child was unwilling to eat, continuously appealing something by the word "Mamma." As a result, this pair reached a deadlock.

Discussion

In our cases, the communication types indicating good responses were observed in all mothers. But those indicating rejection (types and) were also observed in 4 mothers. The communication types indicating rejection accounted for 25.0% in Case A, 11.0% in Case E, and 20.0% in Case F but 60.0% in Case H. In Case C, the mother showed only types and , indicating good responses.

Characteristic two cases (Cases C and H) were evaluated. A vicious circle was observed in Case H; the mother tended to become emotional, which put her child into a bad mood, inducing reject responses in the mother. However, as shown in Fig. 5, the words and behavior of the child were mostly classified as (1) = attachment for the mother, and no words or behavior classified as (3) = rejection of the mother were observed. On the contrary, about 50% of the responses of the mother were classified as (5) = Attention was directed to herself, and her responses to her child were rejected, and about 50% were classified as (4) = Attention was directed to herself, but she did not reject child's appeals. Thus, the mother did not always show rejective responses. We speculate that she was perplexed between child's words and behavior showing attachment and her roles, and she only looked as if her attention had been directed to herself. Under such a condition, her mind may have been too much occupied to direct her attention toward the hidden message in the word "Mamma." that may have meaning other than food. At a hospital, a specific environment under which the mother and child live closely for 24 hours of the day, it is natural that mother's responses to her child tend to depend on the situation. In Case H, the mother was still young (27 years old). We also speculate that the method to make a psychological distance between the child and herself, awareness of her roles as mother, and her roles and behavior were not established yet,

and therefore, her responses tended to be more dependent of the situation. Vargas⁸⁾ reported "a marked correlation between mothers with marked anxiety and anger in their voice and irritation and anxiety in their children." Before such a deadlock is reached, appropriate nursing intervention may be necessary.

On the other hand, in Case C, most words and behavior of the child were classified as (3) = rejection of the mother. However, the mother was not affected by rejective words and behavior of her child and showed good responses. Her responses were temporarily interrupted by his request, "wee-wee." Shirai⁹⁾ suggested in his exchange analysis that "a hidden psychological message not expressed as words is present in an apparently casual surface social message,...". The mother understood a hidden message "I don't want to take medicine." in "wee-wee" and interrupted the opposing communication. "We -we" may be a word that not only implicates "I don't want to take medicine." but also proposes discontinuation of the topic concerning drug administration. Of course, drug administration as an important treatment method in this child can not be discontinued, but his mother may have judged that it is appropriate to grant his request now and encourage him to take medicine again after he calms down.

As shown by Cases C and H, to direct attention toward non-verbal communication such as child's facial expression, tone of voice, or attitude, sensitivity concerning communication is necessary such as conveying the child "what she feels," not saying "what she thinks" of child's words and behavior. Everything starts with acceptance of child's feelings.

Among factors such as child's age, the duration after the initial onset, the present hospitalization period, the presence or absence of hospitalization history, and the family background, only mother's age was significantly related to the communication types. Actually, each family had multiple factors frequently combined in a mosaic pattern specific to each family, and therefore, these factors are likely to be left out of statistical analysis. However, good responses increased with mother's age, suggesting potentiality of nursing intervention of the mother. Our previous survey of "hospitalization with attendance"⁽¹⁰⁾⁽¹¹⁾ showed that the percentage of "hospitalization with attendance is very good" for

mothers was high, and that for children was lower. Thus, hospitalization with attendance is at the sacrifice of mothers. Relatively young mothers do not have wide modes of coping with maintenance of the family life and critical situations due to hospitalization with attendance. In cases C and H, the mothers were 33 and 27 years old, respectively. This difference in their age may have been a cause of the differences in mother's responses. When the mother has problems, it is possible that she can not respond according to the situation of the child. Therefore, telling mothers that we are prepared to support is important in nursing intervention.

In this study, the participation-observation method was used to evaluate the state of communication between inpatient children and their mothers. Schematic representation of child's words and behavior and mother's responses facilitated understanding of the flow of communication compared with the conventional questionnaire or projection method. Since communication scenes can be analyzed not only cross-sectionally but also longitudinally by this method, unfolding of appeals and responses and exchange of feelings can be observed real-time. This observation method allows global dynamic evaluation of the mother-child communication.

Most responses were good in Case C, but there were only a few good responses and many rejective responses in Case H. This difference may be also associated with the degree of development of words. In Case C, the child could appeal in words. In Case H, the child could not adequately appeal in words. In Case H, the mother should make efforts to understand the psychological state of the child based on non-verbal appeals. In this study, verbal communication was primarily analyzed. However, evaluation of the mother-child relationship based on only verbal communication is limited in cases such as H in which the development of words in the child was still inadequate or in cases of impaired development of words in children. Further studies on methods of analyzing non-verbal communication are necessary, to receive hidden psychological message that can not be expressed as words.

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入院中の小児と母親のコミュニケーション分析

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要旨 大学病院に入院している小児と母親のコミュニケーションを分析した。8組の親子の56場面を観察し、母親の対応の仕方からコミュニケーションを6型に類型化した。型は良好型、型は修復型、型は対応良好中断型、型は対応頓挫型、型は拒否的終結型、型は拒否型とした。

その結果、型が73%みられ、どの親子でも良好な対応がみられた一方で、どの親子にも中断や拒否を示す対応もみられた。対象者の背景とコミュニケーション類型の関連がみられたのは母親の年齢だけであった。特徴的な2事例の分析では、一方がほとんど良好な対応であったのに対し、もう一方は良好な対応が少なく拒否型が多かった。

母親には小児の感情を受け止めるためのコミュニケーションに関する感性が求められており、そのための看護介入も必要であり、重要である。

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