

# Dynamics of the mother-child relationship in the presence of functional gastrointestinal disorders in infants

Daniela Marincas<sup>1,2,3</sup>, Simina Angelescu<sup>3,4</sup>, Vlad Dima<sup>5</sup>

<sup>1</sup> "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>2</sup> Family Medicine, Stella Maris SRL, Bucharest, Romania

<sup>3</sup> Romanian Maternology Association, Bucharest, Romania

<sup>4</sup> Angelescu Simina Private Psychology, Bucharest, Romania

<sup>5</sup> Department of Neonatology, Filantropia Clinical Hospital, Bucharest, Romania

## ABSTRACT

Motherhood is still insufficiently explored regarding its psychological aspects. Maternity brings an innovative perspective in the diagnosis and treatment of various disorders of mother and child in the first year of life. Functional gastrointestinal disorders are the most common diagnosis in Pediatric Gastroenterology, being recognized as a group of diseases difficult to diagnose and manage. Among diagnosed and treated infants, some display a long-lasting suffering, which shows that a number of clinical aspects may be insufficiently explored. One such dimension is the one described under the term "birth-related illnesses", i.e. psychosomatic symptoms that occur in the infant as a result of a deficient or non-existent emotional relationship with the mother. This paper aims to illustrate how the mother-infant emotional relationship influences the functional digestive manifestations of the infant, their relational dynamics, and the development of symptoms, with and without specific maternal therapeutic intervention. The results represent an argument for the use of the mother-child dyadic therapy for improving the infant's digestive function.

**Keywords:** functional gastrointestinal disorder, mother-infant emotional relationship, birth-related diseases, maternal diseases, maternal therapy, mother-child dyadic therapy

## INTRODUCTION

Functional gastrointestinal disorders (FGID) occupy an important place in pediatric practice, given their prevalence and impact on the psychosocial status of the child and the family [1,2]. For this reason, it is necessary to consider the exploration and assessment of human motherhood from the perspective of its psychological content, the mother and the child being a biological-emotional unit to be observed and treated together. Maternity offers an appropriate etiological diagnosis and therapy, responding to the needs of both the suffering child

and the mother in emotional difficulty [3,4]. Numerous studies conducted in recent decades show that 10-20% of women suffer in the first months after birth from difficulties in creating a satisfactory relationship with their baby, which can lead to the development of somatic pathologies, developmental problems, to the abandonment or abuse [5,6,7]. FGID in infants should be correlated with the condition of the mother, from this point of view maternology being a sensitive field, that addresses, identifies and treats the mother-child dyad from an innovative multidisciplinary perspective.

*Corresponding author:*

Daniela Marincas

*E-mail:* marincasro@yahoo.com

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## MATERIAL AND METHOD

We chose to illustrate the case of a mother we observed during the first year of life of each of the three children she gave birth to. This case study aims to illustrate how postpartum emotional disorders can affect the infant's health. We followed the dynamics of the mother-child emotional relationship and functional digestive disorders, from the birth of the first child to the end of the infant period of the third child.

Aspects related to the legislation governing scientific research have been respected. The subjects and legal representatives of the minors admitted to the study were informed about the scientific research and signed the informed consent to join the study.

To identify and classify the symptoms of infants regarding FGID we used an adapted questionnaire, according to the Rome IV criteria [8]. The Beck Depression Inventory-Second Edition (BDI-II) was used to assess the depressive symptoms and to identify her psycho-emotional state in the last week. The feeding video analysis and the completion of the Echobal scale were the basis for diagnosis of mother-infant emotional relationship and at the same time evaluated the evolution of this dimension during the therapeutic process [9,10].

The infants' observation sheet recorded data regarding the type of birth, diet, weight at birth, current weight, age, presence of FGID according to the Rome IV criteria (colic, regurgitation, constipation, diarrhea, rumination, dyschezia), paraclinical investigations performed, and observations realized in the absorption, dialogue and the relationship phases of the Echobal scale [3,8].

At mothers, we recorded age, social and marital status, pregnancy progression, number of abortions, BDI-II scores (normal, minimal, moderate, and severe depression). The Echobal Scale (Echelle d'Observation de l'Allaitement) for assessing breastfeeding / bottle feeding provided important data about the quality of the mother-child emotional relationship. The video recording of feeding in the three phases (absorption, dialogue and day-dreaming / relationship) aimed to identify early maternal difficulties, highlighted by various bodily and emotional responses from the child and the mother [3,9,10]. The normal phases of feeding include: the absorption phase, in which the baby normally absorbs the food quietly and the mother has the ability to give; the dialogue phase, in which the infant looks up at the mother, and she greets him; the dreaming phase when the baby can open up to the world, in the mother's arms, and gets accompanied, according to own needs. The interpretation of the Echobal scale and of the feeding video recording can help in classifying the mother-child disorders in

a certain category of maternal disorders (transference pathologies) and can measure the change in the emotional response of the two during the intervention. By completing the phases of feeding on the Echobal scale, several types of feeding are highlighted, indicating the infant's attitude in relation to the mother: direct, sketchy, defensive, anarchic, non-existent. The scale shows the facial expression, the elements of the mother's body, the way she physically supports the infant, how she interacts with him, as well as the way the infant interacts with the mother. At each meeting, the children were filmed at a breast / bottle milk table, together with the mother.

## CASE PRESENTATION

### Mother-first child couple

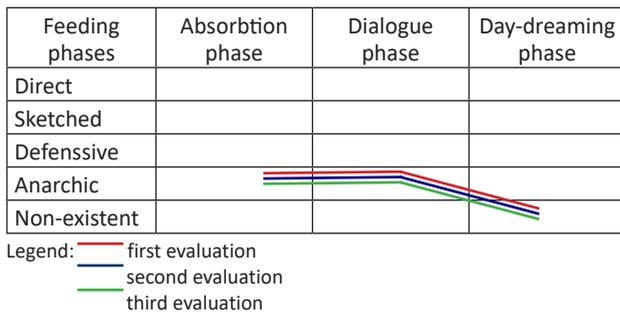
Mother, M., first pregnancy, 29 years old, menarche at 11 years old, married, higher education, without noticeable personal history before and during the pregnancy; the pregnancy was desired and had normal evolution, however with inefficient labor and cesarean delivery. From family history we note: father-type 2 diabetes, chronic hepatitis, alcoholism; mother-glaucoma, cataracts, dysthyroidism. The BDI score indicates mild depression.

R., male infant, born at 38 weeks, weight at birth 3,900 g, current age 3 months, is brought at the consultation for colic, constipation, and difficulty getting breastfed. The mother complains that the baby is struggling with her breast, feeding is difficult, he bows (opisthotonus), hits the breast with her hands and pushes the mother; the relationship with R. is described by the mother as „a struggle for survival.” The mother is visibly worried, tense, panicked, she doesn't understand what is wrong with breastfeeding. We performed paraclinical investigations to rule out a possible organic cause of the baby's symptoms. R. was classified according to Rome IV criteria in the FGID groups of colic (she cries a lot and is hard to calm down from about 5- weeks of life) and constipation (she had 2 stools/week in the last month). He received hygienic-dietary recommendations and symptomatic treatment for colic. At the intermediate and final reassessment, the infant's symptoms remained the same, as did the opposing behavior in feeding and the relationship with the mother. At the same time, the Beck BDI Depression Inventory was applied to the mother in the same consultation, in order to evaluate the psycho-emotional state of the last 7 days. They were videotaped at the milk table, at each of the three evaluations.

R. is an eutrophic infant, developed within the normal age limits, displaying colic and constipation. Following the video evaluation, it was concluded that absorption and dialogue phases were anarchic,

while the day-dreaming phase was totally non-existent (table 1). In the absorption phase, the feeding moment almost breaks out. There is no such thing as an anticipatory reaction of hunger. We are dealing with a rather rigid, tense, agitated child, who hardly catches the mother’s breast, struggles at the breast, sucks anarchically, pushes against the mother’s body with her hands. He expresses this behavior for minutes, then he seems to adjust a little and becomes calmer, sometimes with his eyes closed, while in other times he stares blankly. The mother has a rather tense position and is not present in the relationship. Faced with the mother’s disorganized behavior, the child endures an experience of fragmentation, from which he practically tries to defend himself. Until the end of the meal, each of the two remains locked in their own worlds.

**TABLE 1.** The Echobal Feeding Observation Scale for the couple M.-R.



The video evaluation of the feeding time at the second and third consultation did not show any noticeable changes in the sense of improving the phases of breastfeeding. It was a three-stage observation of the mother-child couple, at one month between them, during routine pediatric visits. The Echobal scale concluded the presence of a conflicting breastfeeding standard. The form of dysnatality in which the infant was placed is active natal opposition at all three consultations. The BDI scores at all three evaluation meetings identified a mild depression, with a score of 13 items out of 63 possible. The mother says that „the things I do don’t satisfy me as much as before”, she has feelings of guilt, lack of self-confidence, she feels more tense than normal, she is easily irritated, lacks concentration, makes decisions with difficulty, does not have enough energy, gets tired faster, sleeps less, has low sexual appetite. The mother- first child couple did not benefit from psychotherapy sessions during the observation period.

**Mother-second child couple**

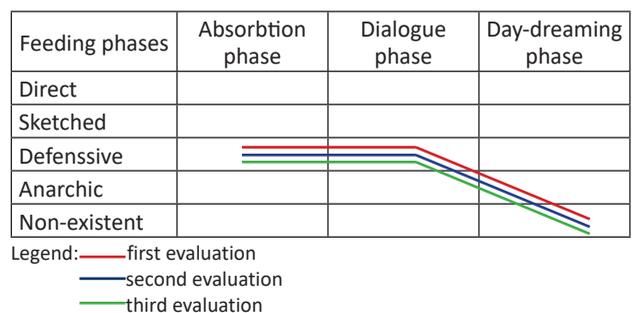
Mother, M., 32 years old, second pregnancy and second birth; the pregnancy was desired and had a normal evolution, she wanted to give birth natural-

ly, but had an inefficient labor onset and ended with a second cesarean birth.

S., male infant, born at 40 weeks, weight at birth 3,700 g, current age four and a half months, is brought to the consultation for constipation and regurgitation, being included in the FGID (infants), according to the Rome IV criteria. S. is a quiet, withdrawn, defensive child. Clinically he has constipation and regurgitation. The video placed him in the defensive position in the absorption and dialogue phases (it protects its face with its little hands), while day-dreaming phase was practically absent. At the same time the mother practically “got fed” from the relationship with her child (reverse breastfeeding). After a tumultuous first motherhood, the mother finally has a „calm / good / quiet baby”, in accordance to her phantasies.

The BDI was applied to the mother, while the video recording was also made at the table, in all three evaluations. The mother describes this relationship as healing, as she feels loved by this child, who is described by her as very calm, compliant, staying at the breast for a long time, and able to “feed her emotionally.” However, she experiences intense states of fatigue, exhaustion, self-dissatisfaction and the thought that she is not understood and supported, she is ambivalent in relationships, and emotional unstable. At the age of 6 months of the child, she requests and begins an individual psychotherapy program, which is inconstant, with oscillations between commitment and withdrawal.

**TABLE 2.** The Echobal Feeding Observation Scale for the couple M.-S.



The Echobal scale showed a conflicting or indifferent standard. The BDI score identified physical and mental exhaustion, irascibility, inability to enjoy, despair, loss of hope, the absence of the “good mother” feeling, and guilt. She also felt a lot of anger and aggression in relation to herself and others. When assessing the mother-child relationship, M. managed to understand, step-by-step, the need to create a different relationship with her baby and asked for help. She initiated individual psychotherapy because she felt overwhelmed in managing the relationship with the child and with herself. Due to the limited time of observation of the mother-

child relationship during the three evaluations performed in the family medicine office, there was not enough time to notice important psychosomatic changes at the infant, including in what FGID were concerned. Therapeutic sessions focused on establishing a positive therapeutic alliance to support the reduction of emotional instability, ease of expression, cleansing toxic, painful feelings from the patient’s present and past, so that the relationship with children became healthier.

**Mother-third child couple**

Mother, M., 35 years old, third pregnancy and third birth; gestational diabetes diagnosed in the 6th month of pregnancy, balanced by diet; tries natural birth after cesarean section, has labor, but fails and gives birth again through cesarean section.

A., female infant, born at 39 weeks, weight at birth 3,900 g, current age 2 months, presents colic and regurgitation at the first two evaluations. The mother is evaluated for depression with BDI and the video is made at the three successive evaluations.

A. is a 2-month-old girl with colic and regurgitation. At the first evaluation, the video captured the characteristics of the three breastfeeding phases: the absorption was defensive, the dialogue was anarchic, and the day-dreaming phase was non-existent. For a month, several mother-child therapeutic sessions were held, together with individual psychotherapeutic sessions for the mother. At the intermediate video evaluation, the absorption, the dialogue and the dreaming phases were barely sketched. At the third evaluation, the absorption and the dialogue phases were normalized, the mother and the child managed to connect during the feeding moment, while the dreaming phase was outlined (Table 3). Throughout this period, from the first evaluation to the final evaluation, mother M. benefited substantially from individual psychotherapy sessions. From the point of view of functional symptomatology in infants, a visible improvement was found at the intermediate evaluation, with the total disappearance of colics and regurgitation at the end of the observation period. The BDI-II Inventory indicated a decrease in the maternal symptoms reported at the beginning of the evaluations. The mother’s condition was also characterized by the appearance of more pleasant feelings, safety in the relationship with the girl, in the way she cared for her, feelings of joy, satisfaction, being at ease and natural as being her mother, the pleasure of being together with her. In the case of this third child, the mother fully benefited from professional emotional support during pregnancy, as well as childbirth education, feeling the need to become more balanced emotionally and to experience more easily through birth

and the postpartum period. We consider that this support was much more stable than in the case of this third child and had visible benefits. The mother went through a more stable condition through the perinatal period and managed to achieve a healthier connection with her daughter, which was evident over time in her behavior.

**TABLE 3.** The Echobal Feeding Observation Scale for the couple M.-A.

Feeding phases	Absorption phase	Dialogue phase	Day-dreaming phase
Direct			
Sketched			
Defensive			
Anarchic			
Non-existent			

Legend: — first evaluation  
 — second evaluation  
 — third evaluation

The Echobal Scale identified at the first evaluation a type of reversed breastfeeding, this form of dysnatality being interpreted as “active natal opposition”. At the second evaluation, this commuted to sketched normal breastfeeding, the form of dysnatality being “the tendency to active natal opposition”. Still, at the time of this evaluation, there were sometimes indicators for a normal breastfeeding in all three phases of feeding. At the last evaluation, the Echobal scale identified normal breastfeeding, no dysnatality, no functional digestive symptoms at the child, with normal mother scores at the BDI-II Inventory.

**DISCUSSION**

The three cases of observation of the mother-infant emotional relationship are part of a larger study about the effect of maternal difficulties on FGID in infants. The cases were recruited because of the presence of FGID in infants. It was interesting to observe the evolution of the mother-child relationship, at the same mother and her three children, during their infancy. The children were recruited in the study because they presented FGID, according to the Rome IV criteria. The video and the Echobal scale helped to frame the emotional mother-infant relationship. In all three mother-child couples, we followed both the dynamics of the mother-child emotional relationship (Echobal scale and the Beck Depression Inventory BDI) and the persistence and / or reduction of the FGID symptoms.

At each of the three evaluations, the mother-child couple was filmed while breast/bottlefeeding, in order to capture the reaction of the two during the feeding stages (absorption, dialogue, dreaming). The video allowed the team of specialists to observe

later, by repeatedly watching the films, the moments that could easily escape to the naked eye, when directly observed. In the case of the first two children, the presence of FGID was supplemented by disturbances in all phases of breastfeeding.

This case presentation proposed several practical ways and tools through which the maternology approach can support and direct the activity of the family medicine / pediatrics physicians in what concerned FGID in infants. Along with the analysis of the infants' symptoms and the assessment of the medical diagnosis and emotional relationship (breastfeeding phases, Echobal scale), specific maternology therapy was conducted by a multidisciplinary team. Beneficiaries of maternology therapy showed visible improvements in symptoms (both FGID in infants and maternal depressive symptoms). Reducing the mother's toxic emotional states, which undermined the quality of the relationship with the baby is able to unlock the mother's capacity for dedication, and the initiation of a psychological rebirth [3,9].

The infant's lack of physical and emotional satisfaction is a visible phenomenon, visible during the feeding moments (e.g., eating inhibitions, eating disorders - anorexia) and / or beyond (e.g., inconsolable crying). When feeding the infant, the mother may think that it is a technical mistake, or that her milk is not of good quality. This may be due in part to insecurity, maternal anxiety about one's own childcare skills. The mother may perceive a certain inability to be able to breastfeed, to adjust to the infant's needs. In this sense, by assessing the three standard phases of breastfeeding, the Echobal observation grid makes it possible to accurately visualize and compare the results, as well as easily follow the evolution of the mother-child relationship during maternology therapy [3,9]. It can serve in identifying transference difficulties, while the collected data can be supplemented by videos and information collected in the mother's psychotherapy sessions. The maternal diagnosis relies also on the information collected by the BDI-II Inventory; however, one should observe that, being a self-applied questionnaire, BDI-II Inventory can occasionally provide an erroneous picture of the psychological reality, especially when the mother's mental defenses are very strong. It is what we could define as "masked depression", a maternal disorder that can be identified by using additional, sometimes indirect tools, including the monitoring of the child's physical symptoms and behaviors.

There are two possible pitfalls that we should pay attention to.

The first is the so-called „pediatric maternal avoidance syndrome” – the mother goes to the pediatrician for the child's somatic problem, and the mater-

nal difficulties will be practically hidden behind the assignment of a new caregiver for the sick child [9]. Most likely there are mothers who are capable of concealing well their suffering, do not verbalize it, for fear of not being labeled, or out of shame of not being "good mothers" [3]. The mother's hidden helplessness can only be misleading to the physicians, as they tend to believe that the baby is the only one to have a somatic problem, especially if the mother acts nice, is attentive and extremely involved in the child's health problem. Still, the deficits in the mother-infant relationship can be easily identified, even at 6 weeks after birth.

The second trap is the possibility of a false diagnosis of maternal depression. The doctor may think that he is facing a postpartum depression, which will restrict the experience of real motherhood to a false and simplistic diagnosis. If maternal pain is trivialized, we can only expect a disappointing maternal behavioral response, affecting the activation and / or development of a living, authentic relationship with the child. In this respect, it is important for the pediatrician to be able to listen to the mother, to understand her, to perceive her despair and the shame of not feeling the maternal drive for her child. Maternal difficulty is not easy to detect, it can present various and numerous clinical forms; mothers easily conceal, out of fear, the fear of being judged and labeled [4,5].

In relation to the observation of the breastfeeding phases and the elaboration of the Echobal scales, the infants could be separated into several clinical pictures signaling a suffering related to the incapacity of psychological birth. The child suffers from the fact that he is not psychologically born yet, conditions described by maternology as *dysnatalities*. The infant in the stage of passive natal resistance is protected by stubborn ignorance of the maternal intervention, the one with deficient or active natal opposition, reacts, less, respectively more, when exposed contact (at breast/bottle feeding) to the mother. There are real emergencies that should be identified and treated immediately as maternal difficulties [3,6].

In the first case, infant R. is asking to be psychologically born. He is in a state of active natal opposition. From the video examination of the moments of breastfeeding it can be seen how the baby protects itself in contact with the mother. From the point of view of the infant's digestive symptoms, they did not change either in intensity or in the sense of a visible improvement, until the end of the clinical observation. The second case, S. showed passive natal resistance throughout the observation, and was permanently protected himself in relation with his mother. Also, digestive symptoms persisted throughout the evaluations. The last case, A. initially pre-

sented for consultation with colic and regurgitation, and from a maternology point of view, suffered from active opposition dysnatality, with defensive absorption, anarchic dialogue, and non-existent dreaming phase. However, in this case, the psychotherapeutic intervention, initiated from pregnancy and maintained in the postnatal period supported the positive dynamics of the mother-infant relationship, so that at the end of the study the child no longer had digestive symptoms, the mother's emotional state was much better, and the phases of breastfeeding were normalized.

## CONCLUSIONS

It is necessary to early identify, monitor and adequately treat, in a multidisciplinary team, the psy-

chosomatic problems of the mother-child couple. In this paradigm, the child can be imagined as the „little clinician”, whose symptoms can inform about a deep maternal emotional difficulty. Throughout the maternology approach of FGID in infants, we observed a noticeable improvement in the child's health and an improvement of the emotional relationship of the mother and child. These observations, studied in a larger group of mothers-infants with FGID, could represent the basis for more extensive research, to provide evidence for the effectiveness of complex maternology intervention in the therapy of FGID in infants.

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