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Original Article

Occupational Therapy and babies treatment in premature intervention from a Hypothesis of Psychomotor Functioning: single case study[1]

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Abstract: Introduction: Ongoing studies about premature intervention (PI) on babies with developmental risk, like prematures, invite therapists to construct new clinical treatments. Objective: To analyze the effectiveness of a Hypothesis of Psychomotor Functioning (HPF) for treatment of the premature babies. Method: Qualitative, longitudinal, and clinical almost experimental single case study. We studied one premature baby, with developmental and psychic risk, identified by the PREAUT and IRDI protocols. The baby received three months of PI treatment by occupational therapy from the HPF. Treatment was filmed and registered in a field diary. We then compared the proposed objectives and the collected results, outlining the effects of the HPF. Results: The case confirms that the psychomotor irregularity may be understood as a psychomotor symptom and its source construed as from a HPF. The irregularity is considered in a singular way, as observation of how the child constructs its Body Scheme (BS) and Body Image (BI), starting from the bonds with parents. The treatment effectiveness was confirmed from a HPF, as the psychomotor symptom went away (BS), giving place for cognitive and psychomotor acquisitions, and to the maternal resignification of the investments in her baby (BI). The BS is taken as a cognitive and motor psychic functioning related to the BI in construction. Conclusion: The HPF interprets the baby psychomotor process based on its construction, allowing a PI that can transform a psychomotor symptom into a structuring motion.

Keywords: *Premature, Psychomotor Performance, Occupational Therapy, Speech, Language and Hearing Sciences, Psychoanalysis.*

Terapia Ocupacional e o tratamento de bebês em intervenção precoce a partir de uma Hipótese de Funcionamento Psicomotor: estudo de caso único

Resumo: Introdução: Atuais pesquisas sobre intervenção precoce (IP) em bebês com risco ao desenvolvimento – entre os quais, o prematuro – convidam terapeutas à construção de novos tratamentos clínicos. Objetivo: Analisar a eficácia de uma Hipótese de Funcionamento Psicomotor (HFP) para tratamento de bebê prematuro. Método: Tem cunho qualitativo, longitudinal, clínico quase experimental, de estudo de caso único. Amostra deu-se por conveniência, sendo um bebê prematuro, com risco psíquico e de desenvolvimento, identificado pelos protocolos PREAUT e IRDIS. Foi tratado durante três meses em IP por terapeuta ocupacional, a partir de HFP. O tratamento foi filmado e registrado em diário de campo. Posteriormente analisado através da comparação entre objetivos propostos e resultados alcançados, destacando os efeitos da HFP. Resultados: O caso confirma que a irregularidade psicomotora pode ser compreendida como sintoma psicomotor e sua origem pode ser interpretada a partir de uma HFP. Considera a irregularidade de forma singular, como anúncio de como a criança constrói seu Esquema (EC) e Imagem Corporal (IC), a partir do laço com seus pais. Confirmou-se a eficácia do tratamento a partir de uma

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HFP, pois o sintoma psicomotor desapareceu (EC), dando espaço para aquisições psicomotoras e cognitivas, e para a ressignificação dos investimentos da mãe em seu bebê (IC). O EC é tomado como funcionamento motor e cognitivo, que anuncia o funcionamento psíquico relacionado a IC em elaboração. Conclusão: A HFP interpreta o processo psicomotor do bebê supondo como está se constituindo, de modo a permitir uma IP que possa transformar o sintoma psicomotor em gesto estruturante.

Palavras-chave: *Prematuro, Desempenho Psicomotor, Terapia Ocupacional, Fonoaudiologia, Psicanálise.*

1 Introduction

The early intervention field was and remains traditionally applied to the treatment of infants diagnosed with neurological lesions, syndromes, bad congenital formations, that is, with serious biological disorders. However, the investment in health research and treatment (GURKA; LO CASALE-CROUCH; BLACKMAN, 2010; RODRIGUES; BOLSONI-SILVA, 2011; FERNANDES et al., 2013) together with neuroscience research - existence of an "innate intersubjectivity" (NAGY; MOLNAR, 2013), stating that the baby has biological and psychic resources to put all his structural and instrumental repertoire in the search for pleasure, used by him to take a more active position in his own development - has encouraged professionals in this area to invest in new ways from the early detection of psychic risk or the development of the baby.

Thus, the validation of instruments, such as the PREAUT signs, which identify psychic risk and are part of the *Program Recherche Evaluation Autisme* (OLLIAC et al., 2017), have been validated in the last decade, evaluating children from four months old, and which early detect risk of progression to autism. Another instrument is the Child Development Risk Indicators (IRDIs) (KUPFER et al., 2010), which assess children from one-month-old. IRDIs differentiate psychic risk when there is the possibility of structuring a serious psychopathology in the future, risk to development, when there is risk in the bond between the baby and his parents, which can cause the emergence of symptoms, such as, for example, psychomotor delays, without any biological risk involved.

Both instruments observe the condition of the infants in their intersubjectivity, and the conditions of the parents to perform their functions from the Freudo-Lacanian psychoanalytic field.

Among the psychopathologies, there is the risk of evolution to autism, which may have an organic cause, but which affects the construction of innate - or primary intersubjectivity (GOLSE, 2013) - because they are first relational investments of the parents (OUSS et al., 2014; ESPOSITO; VENUTI, 2009). There are also cases where there are limitations in the bond with the other that do not come from the baby, but difficulties in the exercise of parental functions, which may evolve into psychopathologies such as psychosis or only manifest as a developmental disorder (LAZNIK, 2013). In both types, psychomotor difficulties can be the resource that the baby has to express its difficulty, and it is up to the therapist to interpret them as a symptom (KUPFER et al., 2010; VENDRUSCOLO; SOUZA, 2015). It is still possible to identify developmental problems in the acquisition of language as another common symptom (PRETTO; RAMOS; MORAES, 2014; CRESTANI; MORAES; SOUZA, 2015), without being a specific biological cause. Whatever risk is detected, the insertion of the PREAUT and IRDI protocols in the first year of child care requires thinking about an early intervention that considers the baby and his family, simultaneously and singularly, indicating a risk but not yet structured in the condition of a psychopathology.

In this article, psychomotor development will be focused on evaluation and intervention. It will be discussed from the presentation of a case of a premature baby with psychic risk, in which the simultaneous understanding of the biological, cognitive and psychic dimensions of child development was sought from the conception of a Hypothesis of Psychomotor Functioning (HPF).

The HPF proposition is based on an analysis that includes concepts such as body schema (BS) and body image (BI), analyzed from a reading that guarantees the singularity of the motor, cognitive and psychic characteristics of the baby of its primordial caregiver, considers to bring concepts traditionally used in the identification of psychomotor symptoms of older children for the field of early intervention (PERUZZOLO; SOUZA, 2017).

Considering that, in the first years of the baby's life, he is constructing and experiencing both his BS and his BI, and that already in this period it is possible to identify some of his innate abilities, it is possible to evaluate and intervene in a psychomotor signal it is structured as a psychomotor symptom. Therefore, it is necessary to take the psychomotor

condition of the baby with psychic risk or risk to development as an announcement (hypothesis) of how he is trying to have both his intersubjective and biological issues, in the corporal interrelation with his parents (psychomotor functioning). The HPF assumes that the baby's psychomotricity should be assessed from the distinction between symptom and sinthoma. This distinction was considered by Surreaux (2006), based on Lacanian theory, to propose a hypothesis of language functioning. For the author, the symptom "[...] is considered the symbolic extension of a signifier..." (SURREAUX, 2006, p. 115). It is also understood as the clinical symptom, "[...] which causes the subject to create demand for care, it is the complaint...". The "sinthoma is proper to the structure of the subject" (SURREAUX, 2006, p. 115). It is understood as a structuring symptom, which "organizes the subject's place" (SURREAUX, 2006, p. 115) in relation to his parents and the environment in general. For Surreaux (2006), listening to the complaint (symptom) implies taking it as an advertisement and treating it in a way that unfolds into a constituent condition of the subject (sinthoma).

This distinction proposed for the field of language - and shifted in this research to think psychomotor development from the HPF - allows to direct the treatment of the baby in early intervention considering the possibility that its psychomotor symptoms function as an advertisement in the body about in what way his emotional condition interprets the medium and determines its movements (PERUZZOLO; SOUZA, 2017). In the same way that Surreaux (2006) defends the symptom of language as a form of the unconscious to manifest, proposing to consider such manifestation in the psychomotor field in this study.

The treatment in early intervention from the psychomotor clinic interferes in the production of the psychomotor symptom, preventing it from occurring or diminishing the iatrogenic effects on the baby's development (PERUZZOLO et al., 2015).

This article aims to present a study in the format of a clinical case study, whose treatment was guided by a HPF. It is proposed to consider the psychomotor symptom as an advertisement and a psychomotor response of how the baby is able to use his resources and respond to the first information passed by the mother.

For this, the article presents the characteristics of the readable child for this type of treatment, the evaluation process and the elaboration of the HPF, the treatment, the evolution and the results, and makes a theoretical discussion that contributes so other professionals seek ways to qualify the clinic with babies in these techniques.

2 Method

This research is the result of the Ph.D. thesis of the first author. There was a qualitative, longitudinal, quasi-experimental clinical profile that, according to Nobre et al. (2004, p. 221), aims to "[...] develop diagnostic and therapeutic means between a factor under study and a clinical outcome...". The research strategy was an investigation based on a case study, with a sample of convenience identified, addressed and treated in the manner established in the research entitled *Comparative Analysis of the Development of Premature Babies and on Term and its Relationship with Psychic Risk: from the detection to the intervention*, approved by the Research Ethics Committee under opinion number 652.722, with a reporting date of June 10, 2014, in compliance with Resolution 466/12. Those responsible had clarification of the objectives and procedures and showed their agreement to participate in the research after signing the Informed Consent Term (TCLE). This research is linked to the postgraduate programs in Disorders of Human Communication and Psychology of the Federal University of Santa Maria (UFSM).

2.1 The research subject

It is a girl at psychic risk and developmental delay, who will be presented by the letter T. She presented psychic and developmental risk by IRDIs and PREAUT signs, and clinical signs of psychomotor inhibition (LEVIN, 2011), observed by the examiners of the bigger research, in the first step of collection that corresponded to the corrected age at four and nine months, respectively. Considering these results, T. was referred for evaluation and early intervention, which generated data for this study.

2.2 The clinical intervention

The appointments were performed by an occupational therapist, once a week, in a period of three months, guided by an interdisciplinary team, in an Extension Program in early intervention, linked to UFSM, composed of speech therapists, physiotherapists, psychologists and occupational therapists. In the clinical case, two researchers subsidized the discussion of the case, so another researcher made the intervention in the modality of single therapist, considering the interdisciplinary clinic.

The data collected in the research that detected and referred the girl for treatment was consulted to elaborate the treatment, presentation and discussion of this clinical case: the interview and the sociodemographic questionnaire with the mother, Denver II, IRDIs, PREAUT signs, as well as the data of the baby's record at the University Hospital. It was also analyzed the footage of the girl in interaction with the mother, collected in the evaluation research for early detection of psychic disorder and development, performed at four months and twenty days corrected age.

2.3 Data collection

All treatment and interview sessions were filmed, and the therapist recorded issues she felt were important to highlight in field diary. A graduate student in occupational therapy participated in the sessions filming and interacting, when summoned by the girl, and also made her records in field diary. All of this information made up the database, but the filming and field diaries of the two occupational therapists were most widely used to record the actions of both the therapist and the baby and their families (ROSE, 2002).

2.4 Data analysis

From the filming analysis, those data that contributed to the discussion about the efficacy or otherwise of an early intervention treatment based on a HPF was highlighted. The analysis of the filming occurred from the formulation of an analysis structure, consisting of sample selection, transcription, and illustrative citations, to complement the transcription analysis (ROSE, 2002). The search for results was through a comparative analysis between the objectives outlined for the production of HPF and the results achieved by an occupational therapist and a speech therapist who did not participate in the treatment, highlighting the effects that the proposal had on the therapeutic evolution to strategies used for this purpose.

These data had a Category Matrix produced from the more detailed analysis of the case described in a time series. Yin (2001) calls this matrix a "Logical Model of Program", a combination of matching techniques to found pattern and time series analysis.

As the research is qualitative, the narratives of some fragments of services will be to illustrate, with greater precision, the presented discussion. The tables with some of the scenes were transcribed by adapting the transcription norms adopted by the database of Enunciation and Symptom in Language - Enuncil (FLORES, 2006), in which the sign (!) was added as a point of expression between parentheses to record that the gesture was not addressed to anyone or that the gesture was not interpreted by anyone.

3 Clinical Case Presentations

3.1 Referral

T. is the only daughter of a young mother and father: the mother is 19 and the father is 22. The girl arrived for early intervention with 15 months of life of chronological age and 12 months and 20 days of corrected age, being premature two months and 10 days. Before that, she was evaluated when she was three months and 26 days of corrected age by the IRDIs, indicating developmental risk.

This age corresponds to Phase I of the IRDIs (from zero to four months), composed of five items; it should be noted that all were absent in the girl, indicating psychic risk for the emergence of a psychopathology in the future (KUPFER et al., 2010): *1 - when the child cries or screams, the mother knows what she wants; 2 - the mother speaks to the child in a style particularly directed to her (whining); 3 - the child reacts to the whining; 4 - the mother proposes something to the child and waits for his reaction; 5 - there are exchanges of looks between the child and the mother.* It should be noted that items 3 and 5 were absent when the mother intervened, but were present when the baby was contacted by the examiners.

The signs PREAUT applied when the girl was five months and two days old corrected were also worrisome. The girl did not respond to any of the items in the first part of the questionnaire, which can be synthesized in the absence of a response to the examiner or the mother, when she asks: *Does the baby try to look at you spontaneously or when stimulated? Does the baby try to be look at his mother both in the absence of his mother's request and when she talks to him?* As it determines the use of the PREAUT signals, when the score of the first part of the questionnaire is less than 5, it is necessary to apply the second part. In her application, the girl only responded to sub-item A of item 4 - *After being stimulated by her mother (or her substitute); A - He looks at his mother (or her substitute).* In other items, she did not respond, that is, she did not spontaneously look at her mother, did not smile at her mother, established contact after being stimulated, as happened in item 4 when the (substitute) researcher caused contact. However, it can be said that T. did not offer for a

pleasant exchange with the mother, which indicated risk by the PREAUT signs.

Also, although the motor references were reached (100% score in Denver II, at five months and two days corrected age), it was observed that there was a psychomotor inhibition, since T., in the filming of the research collection of this one period, did not show movements before the offer of a toy by the mother. It was identified that the girl maintained a motor pattern little active, with a constant look at the toys offered by the mother. She maintained a pattern of dialogue that did not stimulate the girl to interact. This led the research team to refer her for early intervention (EI) treatment.

Only when the girl was 12 months and 20 days old corrected, the occupational therapist started attending in EI. Until then, T. was being treated by physiotherapy in the same rehabilitation outpatient clinic for two months, as a result of alteration in the Alberta protocol, performed in the preterm follow-up sector, at the University Hospital of the same institution. When the physiotherapist referred the girl to the occupational therapist, the evaluation was of little evolution, due to the little collaboration of the girl and the mother.

3.2 From the evaluation to the HPF production

At the first contact with the occupational therapist, the mother said she knew her daughter was late for walking. She said that T. did not crawl and cry if she was on his stomach. She could not get up by herself: "the way she falls she stays" (SIC of the mother). She said she hoped the girl would walk. She also reported that the girl was fed only with pasty foods, which would choke if there were bits of meat. The girl was smart and attentive. She knew how to describe what she liked and did not like.

During this conversation, the girl took the toys available on the tatami of the service room and did not interact. It was only when the therapist turned his attention to T. that there was contact. For this, the therapist began to talk to her about the name, function and what each toy that the girl explored could do, seeking an approximation. Until one of the toys that T. manipulated hit a musical toy, which began to play. The therapist looked surprised and curious, catching the girl's attention. T. began to press the button of the song every time it stopped playing and she was shaking his body and smiling and watching the therapist dance. This was the scene that began the construction of the therapeutic relationship between them. During this time, the mother only watched and sketched a timid smile.

From this play and from others that followed – such as to handle toys large and small, pick up and drop, change the toy from one hand to another, pick up a toy in each hand - it was possible to observe that the girl possessed important constructions in relation to some elements of BS, such as tweezers, laterality, space, time and rhythm.

She also indicated curiosity and initiative as she explored each of the toys. The fact that, after a period of exploration, the girl understood the role of each one, she announced the possibility of good intellectual conditions. She had a notion of movement (object trajectory) in relation to the environment and to it; notion of causality and can anticipate both the movements provoked by the toys and by the therapist. The girl used means to reach her goals - Piagetian concepts that situate the construction of her intelligence.

The choice of a toy that could "dance" and the constant return to it announced an insertion in the culture and recognition that, in the eyes of the adults who were there, it pleased (more to the therapist than to the mother). It was about the construction of a BI, still very incipient for the therapist to assume the place of T. (son function) in the relation, but it was already possible to minimize the impression transmitted in the filming of the research collection, that the girl maintained an interest in objects and had a body without much expression.

The girl's contact with her mother happened when T. could not move or move on the mat. Then, she complained in a crying expression and threw her body toward his mother, who soon understood that it was necessary to take her warmly. On her lap neither the girl nor the mother exchanged glances. But the girl hugged her mother, who smiled without emotion.

In this care, the mother talked a lot with the therapist about other appointments, about the motor issue, and about the treatment sequence, since the mother wanted to return to work. It was minimally understood in this first assessment that the girl recognized that woman as her mother (function of mother), who, in turn, offered the safe lap for her daughter. This finding continued to anchor the perception that the girl understood to be someone outside the maternal body. She was one and the mother was another. Through psychomotricity, she places the construction of a child's BS outside the mother's body. And when T. sought her mother to help her, she also announced a process

in which the girl identified and understood one of her mother's functions: to protect her in a safe lap. This recognition, which is in the order of affection, is, for psychomotricity, the field in which the BI is being constituted. When T. finds her limit, the mother gives her sustenance by taking the body in her lap (BS) but also welcomes the anguish of not doing (BI). This set the path of the psychic constitution that the girl was building in her relationship with her mother and is the way to a HPF.

The scene transcribed below gives an announcement of the way of the girl in the construction of her BS and her BI, which, in the light of this research, announces the relation between the biological (development considering prematurity), cognitive (experiences) and psychic (relationship mother-baby).

Scene 1 - exchanging glances in the mirror

Sitting on the mat, in front of a mirror, along with her mother and the therapist, the girl tries to pick up a toy that is far away. Before she gives up, the therapist says she can pick up crawling and invites her to do it, getting in position. The girl runs her hands forward of her legs leaning on the mat, implying that she was willing to try. In the analysis of the scene, it was possible to perceive that the girl had more tolerance to being in a prone position than the mother supposed, allowing her to see in the mirror her reflex in the position. From this meeting with herself in the mirror, the girl stammered: "haaaaa", like a song. She looked for the image of the mother in the mirror and the real mother (outside the mirror). Responding to the therapist's request-not to the look of her daughter who had seen her in the mirror- the mother waved her hand at the girl, keeping her gaze shy. T. vibrated with a date, saying "heee". Then the girl returned to the sitting position, picked up another toy and started to play alone again.

After the therapist's insistence that she did not know what T. wanted, the girl started to ask her finger pointing and doing "tetete". Her mother said she made this sound for everything she wanted. This summoning of the other by the girl, when she needed it, indicated that she knew the other was there but preferred solitary experiences. But when the scene demanded motor control, it bothered her because she does not have, and in frustration, she would throw herself at her mother whimpering. There she found what she needed: "corporal welcome."

When T. stood on the floor, it was possible to quickly identify how the girl was organizing to move: she was held by both her arms in a way that they were above and behind the head. The girl did not see her arms during the march. She walked with her lower limbs (LLs) forward, displaced from the trunk and upper limbs (ULs), which remained behind, appearing a scapular hyper-flexibility. She climbed on a chair with her toes, while her mother was actually holding her by the missing arms and doing all the strength and maintenance of the body on the necessary axis; that is to say, the girl did not need to balance herself, because her mother held her so she would not fall. When the therapist took the place of the mother in driving for the march, the girl maintained the same motor pattern. It was identified that the concepts of BS and BI were compromised for the production of a gait. It was not a question of assuming something organic, but something that could have been put together between the way the mother cared and the way the girl was being cared for during the displacement.

An axis was identified for the production of an HPF.

> *There was something in the way the two* (mother and daughter) *took the support of the girl's body that prevented her from positioning herself for the production of experiences of strength, balance, and dexterity in the movements without the aid of the mother or other.*

However, in the last minutes of this session, the mother told something very important. She had lost a baby, boy, 24 weeks of gestation. This was very painful for her and her husband. After nine months of the first child's death, the mother became pregnant again. She says, "I got pregnant for me. I was sad because I did not think I was going to get pregnant again, and I got pregnant." From this new pregnancy, T. was born, also premature. She spent about two months in the NICU and, according to her mother, "it was a long time". Following this information, the mother reports having a nephew who was premature, 15 years old and studying at an Association of Parents and Friends of the Exceptional (APAE).

Knowing this story, it seemed obvious that the silence of the mother was sadness for the mourning of the first child and the uncertainties regarding the future of the girl, prematurity. On the side of the girl, it was identified that it possessed psychic repertoire, cognitive and motor potential adapted to the age. The question was how much she was willing to put her structure as an instrument to do and who to do.

At the second meeting, one week after the first, the mother reported that the girl had rehearsed some displacements, crawling with support on her hands

and knee. During the conversation, trying to pave the way for the story of the loss of the first baby, who was supposed to contaminate the investment in the girl, the therapist asked the mother how she felt about having to take her daughter to therapy. The mother replied, "I'm fine. Psychologically, well."

With the girl, it was perceived that she was risking more in the changes of posture, of lying to seated, but that still bothered with the impossibilities and appealing to the mother, as help.

Concerning the issues related to the construction of psychomotor concepts, the girl was very happy, sharing the play with the therapist, focused on the game, putting her body schema at the disposal to play. She was very focused on the relationship with the therapist, but not on her mother. This pointed to her place of interlocutor and the construction of her BS both when she played with the therapist and when she shared nothing with her mother. It was possible to assume that T. knew that he would not be able to maintain the pleasurable moments that the play produced if she accessed her mother since she did not support her. The girl still found a worried and sad mother.

Before the HPF announcement, the scene that gathered enough information for HPF production is presented in Table 1 below.

Scene 2 - Breaking the cookie

The girl was standing on the floor of the ambulance room, leaning on her mother's legs, which was sitting on the mat. The therapist was in front of them, sitting on the floor. T. took a pot of biscuits from her mother and began to eat them. The table below describes the mother's silence regarding her daughter's attempt to make contact and the therapist's effort to support the child's attempt and serve as a mirror to the mother.

3.3 The hypothesis of psychomotor functioning for T. Girl

The two days of evaluation related to the filming of the five months and the results of the protocols IRDIs and PREAUT signs already announced important issues to think about an HPF for the girl.

A silent mother, loving but sad and worried about the loss of the first child, diminished her daughter's experiences in relating to her own body and the environment. However, the girl had the personal potential to find in her and in others the necessary

Table 1. Scene 2 - Breaking the cookie.

TONIC DIALOGUE	VERBAL DIALOGUE			
	Mother	Child	Therapist	Student
The girl offers the cookie leading towards the mother's mouth.	(!)		1) Then get it, Mom!!! ((whining)). A cookie, it's delicious!	
The mother stands and does not take the cookie.	(!)		2) Ihhh... Does not your mother want to??! She says nothing. (speaks affectionately but by surprise)	
The girl turns to the therapist offering the cookie.				
The therapist brings her mouth to the cookie and pretends to eat a piece.			3) I want! ((the therapist makes sounds with her mouth as if she was eating))	
The girl stares and smiles.			Huuum, delicious!	
The girl turns to the student who is filming on the other side of the room and offers her the cookie with a smile.			4) Bites this D. ((The therapist authorizes the student to speak))	5) For me? Nhaam... She pretends she bit it and it was good.
The girl returns to offer the cookie to the student.		6) Óooo...		7) Huuuum... Thank you! ((whining))
The girl gives a huge smile to the student frowning and offers the cookie again.		8) Ahaaa		9) Huuuum... ((delicious expression))

resource to continue developing when they offered her the opportunity to do so.

The point is that a way of relating was already established for the girl and the mother, and this appears more explicitly in the way they organize the march (tonic dialogue) and in the level of dialogue (enunciative speech) between the two of them. It was then necessary to move that "form of gesture of walking" (symptom) to another, which made it more independent (sinthoma), and to help the mother to find pleasure in the interlocutions with the daughter. The way would not be through marching training and guidance on how to listen and speak, but rather to qualify the meeting between daughter and mother, especially at the time of the march, mother's main complaint. That is, to pass from the condition of care to the production of a doing: to move independently. For this, the girl needed to have her body. It was necessary for her to be more active in her care-not to fall, to unbalance, to rise-and that in order to support this, it was necessary for the mother to announce what was happening, to assume a less quiet way, and to find other ways of interacting with the daughter. The observations gathered during this evaluation period produced the following Hypothesis of Psychomotor Functioning:

> *The motor symptom is an advertisement of the girl's need that mother exists, who invest. When the girl falls, or when she does not, she finds the mother. And on the side of the mother, it is in this place of care of the body that it identifies itself with its function as mother. It was necessary that the body failed to have access to the mother.*

The point is that this "failure" of one aspect of development kept the mother in the initial position (first maternal signifier for the daughter) of sadness and concern, which originates from the suffering experienced during the life and death of the first child, and in the perspective of her daughter's future. The silence of the mother is fed, when the girl fails. Another clinical reasoning can also be taken by assuming that the desire to put the daughter into a discursive chain of both gesture and language functioning is blocked by the identification of the girl's not doing as a sequel to the prematurity she had already caused a great evil.

The change of posture of the child, both motor and relational, already visible in the second session, made the therapist bet that, as the girl progressed in some acquisitions, the mother would invest more in her daughter. It is an important space in the clinic for early intervention, where the therapist is often unable to interpret maternal distress interpretively and help the mother to repress it. In some cases, one bets that the desire for mothering is greater than the sadness of loss and that in time each of these feelings will be in places other than the unconscious.

Also, for the girl, her new acquisitions could help her to become more active in relational constructions with people other than her mother, in search of experiences that also developed her (father, uncles, cousins of the same age).

The instruments (BS and their abilities), if improved, could offer the girl a change of position about the others (her BI went from dependent to independent and even more provocative of the other's desire), being able to demonstrate to the mother that she was different from the baby who died and the nephew with cognitive deficit.

3.4 The hypothesis of psychomotor functioning as a clinical path

In the fourth session, the therapist presented her HPF to the mother. The form found by the therapist to announce the condition of the girl took two axes: the first, affirming and demonstrating to the mother the cognitive potential of the girl, her interest, and her creativity; the second, more focused on gait development (mother's complaint). The therapist claimed that the girl's motor dependence was associated with the way they related and told her mother that the girl had discovered a way to move safely and quickly, but that the "service" was the mother.

The therapist went told her mother that she needed to tell the girl what could happen if she continued not to take care of herself: she would fall. The mother was instructed to let the girl have the experience of falling, with care and protection, so she also tried to stand up, to balance, to understand that she could walk alone because there was no motor component that would prevent her.

As for the girl, the therapist told her that she was "very close to her mother," to take advantage of her mother's loving kindness and that she did not care if she would fall or not: "Of course, Mom is there to hold you!"

3.5 The evolution of T.

In the following session, called as **the fifth session,** T. came walking led by the mother by one hand only. On the way to the waiting room, she crawled, got up, and, looking for support in the furniture, she went alone. At the end of this care, the girl took her

first steps alone and the mother reported being very impressed with her daughter's prompt response to treatment. She babbled, "Tatata, bababa," "oh, oh, oh," when she hurt herself. Mother reported that her daughter enjoyed playing with the pots of the house, stirring in the cabinets while she cooked: "She's a smartass," says the mother with a satisfied smile on her face. Scene 3, transcribed in Table 2, illustrates the process they are going through as mother and daughter.

In this scene 3, there was a game between mother and daughter, supported by gesture, look and voice one from the other. Her mother allowed herself to believe in her daughter's possibilities and had fun with it. T., with each new doing, fed his mother and found her different. This provoked the girl to follow with her conquests.

This scene and others, in which the girl played as mother, giving food and sharing the care with the mother, showed a course built by the girl of a symbolic chain, inserted in the familiar culture. The gestures of these games announced the roles that T. was recognizing as adults, of which he could count, and in this evolution, the mother was considered to be engaged as well. It was a question of supposing a hypothesis of BI mirrored in the mother, from which the girl was using to approach her.

These events affirmed that the girl was amplifying her repertoire instrumental, scaled by the conceptual elements of the BI.

From the perspective of an occupational therapist, the play of experiencing the activities of a mother feeding and nursing her daughter heralded the recognition of a day-to-day life, a daily life that put the girl in the condition of *becoming subject in her activities* (PERUZZOLO; SOUZA, 2017).

T. constructed a cognitive repertoire appropriate to the chronological age, using concepts and strategies, from those related to objects as well as their functions, intentionality, causality and the effects they can cause, both on these and on people and the environment. The spontaneous productions in the creation of games of the girl as protagonist left her, under the eyes of the mother, in the condition of who was overcoming the difficulties arising from

Table 2. Scene 3 - The Ball Game.

TONIC DIALOGUE	VERBAL DIALOGUE		
	Mother	Child	Therapist
The girl is sitting on the mat facing the mirror playing with a ball.			Gooaal...
The girl turns to mother and throws the ball to her, which she catches it smiling.	Aeeeeee!!		
Smiling, the mother plays the ball to the daughter.	Óooo... eeee!!!		
The girl holds the ball looking at her mother.			
The mother looking and smiling, speaks and gestures to her daughter.	Throw it here, here...		
The girl throws the ball to the mother.	Aeeee!	Eeeee...	
The mother receives the ball smiling.	Aeeee!		
The mother throws the ball to her daughter again, smiling and talking.	Eeeee!		
The daughter gazes at her mother and smiles.		Eeeee...	
The girl throws the ball again at her mother and she gives it back with enthusiasm.	Gooal... Eeeeee!		
The girl looks at the therapist standing behind her with a look of concern, to which the therapist responds in a calm and caring manner.			Wow, very cool! You can play with your mother, you can play. No problem, I'll stay here.
Girl throws the ball to her mother again.			
The mother receives the ball and plays to her daughter, she only passes it to the girl and goes away.	Come on, get it...		

prematurity. In spite of her mother's timid manner, she already supported her daughter's play, without needing the help of the therapist. Along with that, T. would feed herself the same food as her parents and at the table, along with them.

Another obvious highlight was the functioning of language. According to an interview with the speech therapist of the case, the girl had taken a place of interlocution, using the first enunciative mechanisms (relating to the conjunction and disjunction of the I-you), and then, already semantically widening her repertoire in the tongue, with onomatopoeia (tototo) and proto-word (mamama), as well as interjections, which announced that the second enunciative mechanism could emerge soon.

3.6 The end of treatment

In the interview at the end of the treatment, the mother resumed her and her children story, putting the girl in the condition of someone who had health problems but had already surpassed. She narrated her daughter's exploits, amusing herself with each episode. She said that her father and daughter had a lot of fun, but she was more obedient to him and that the daughter "knows right" (SIC of the mother) when she is doing something wrong.

During this period, the girl was discharged, with an indication to follow up in the Premature Infant Care Program at the referral hospital, where the girl was already following up.

4 Clinical Discussion on the Presented Case

For the psychomotor clinic, the defense that the "body gives itself to see" (LEVIN, 2011) - showing what anguish the child - comes to the encounter between what happened between the girl and her mother.

It is possible to consider that T., with great sensitivity in the identification of the face and the maternal voice (LAZNIK, 2013), realized that it would not have it otherwise if not for the care of the body. Where the body failed, it was where he found his mother.

On the mother's side, considering the fear of the effects of prematurity, which culminated in the death of the first baby and in the aftermath of the nephew, together with a personal style of few words, she could recognize the daughter from the perspective of what she could not do.

Considering a psychomotor reasoning (LEVIN, 2011; PERUZZOLO et al., 2015), it was a good biological and cognitive apparatus, which offered the girl the conditions to assimilate the environment (which included mother, father and other relatives she lived) important concepts for the construction of the elements of the BS. She knew, used and even did not use her body to mark her place in the relationship with her mother.

Although in the **first two sessions**, the girl demonstrated through play and games that she was constructing that she psychically constituted a symbolic structure of distinction between herself and her mother, her BS was stuck to maternal anguish. And her body was the record and the assurance that there was a meeting there, and this gesture would persist.

This psychic position of the child is very important for the therapist in early intervention. For this, the consultations with the professional of the field of psychology are fundamental (BORTAGARAI; PERUZZOLO; SOUZA, 2015), since they help to conduct the care that has the baby as the main focus, but that is under the effects of anxieties and expectations relatives.

For the clinic with babies or children, whose psychic structure is still constituted, this gesture is the announcement of a possible position to be assumed in the chain of signifiers, its symbolic matrix (JERUSALINSKY, 2011), a gesture that seeks to identify with his caregiver. The point is that sometimes this identification is built from familiar ghosts. The psychomotor symptom is a movement assumed by the baby to maintain the attention of the parents, since, by other means, as an identification of inherited traits (sinthoma), it is not enough.

Therefore, the condition that for each subject there will be a Psychomotor Functioning Hypothesis (PERUZZOLO; SOUZA, 2017) and not a psychomotor evaluation, because, for each subject, what the body says, what the gesture puts to see as language in the form of a tonic dialogue, is its constitutive matrix (JERUSALINSKY, 2011), built from the way the baby understands need to be and do to produce the encounter that sustains him in a position of son.

But this "tonic-emotional dialogue" (WALLON, 2007) is also mediated by the way the baby is sustained by the mother. This meaning, constructed by the parents, attributed to the movement of the baby, and the passage from this motor act to intentional gesture are understood as a dialectical act because it transforms them with each new interpellation.

The interesting thing about this case is that, even if it is understood that it is from the mother who came the information of sadness, it was not directly on her that the therapist intervened.

The issue for this clinic is to think which symptom is in evidence in the mother-baby-father relationship. Very quickly, fathers need to face the mourning of the desired son, who came different, and also the mourning of not being the parents they hoped to be.

On the other hand, prematurity (the period of hospitalization and first care), considering that most NICUs in public services do not yet have humanized assistance, put the parents in wait for the moment to perform their functions in full. This narcissistic break in having a disabled child, or with a diagnosis of developmental delay, or suffering the consequences of prematurity, reinstates in the family the objectives for which it was generated: a child function (LEVIN, 2001).

The early intervention based on an occupational therapist resumes the familiar productions (LIMA; PASTORE; OKUMA, 2011) that may be involved in a family symptom or anguish, which will make the child's development even more difficult. For Lima, Okuma and Pastore (2013), the condition of a subject to be integrated into his activity implies to be understood in his material, symbolic and relational condition.

In the presented clinical case, when the HPF was constructed, it was indicating a way in which, when the girl stopped failing (motor gesture), she could feed the desire to be a mother, which was suspended by sadness and fear, both for the loss of the first child and for the possible problems from the prematurity of the second daughter.

From the results of the evaluation, it was known that the girl had all the necessary conditions to leave this place, but that she needed another type of investment: to be called to play, to sit, to crawl, to walk) thus, be bathed with signifiers that took it out of the effects of the lived events.

The formulation of the HFP allowed - contrary to a purely instrumental proposal, in which the acquisition of gait was worked - to assume strategies so that the encounter between mother and daughter took place in other terms and that the psychomotor symptom was overcome, before its crystallization.

Finally, it is worth mentioning the protocols used in the evaluation of the research collection and the contribution to the early referral of the baby. It is important to note that the evaluation of the university hospital's premature follow-up service led the girl to be referred to the physiotherapy sector, since the Alberta protocol, used in the service, analyzes the motor in an objective way, which allowed the detection of specific gait delay. However, at the same time, at three months and twenty-six days and at five months and two days, the IRDIs and PREAUT signs, respectively, identified that there was something that was not right in the relationship between the mother and the daughter. In this particular case, the physiotherapeutic treatment did not produce results, as previously reported. But it was the clinical treatment guided by the formulation of a HPF that allowed to identify the origin of the symptom, to elaborate a clinical path to be taken for treatment and to produce the effects on the girl's development, as well as also allowed in the restructuring of the affective bonds between the mother and daughter.

It also allowed confirming the constant concern of the researchers who produced the IRDIs (KUPFER et al., 2010) and PREAUT protocols (LAZNIK, 2013) on the need to take the results of these protocols as an advertisement of "psychic risk" and not as a diagnosis for autism. In the exposed clinical case, it was not a risk for autism (LAZNIK, 2013), even considering that the girl did not interact with others, but a defense in the form of psychomotor inhibition that, if untreated or treated as a purely motor vehicle, it could continue to produce an increasing gap between the mother and the daughter.

5 Final Considerations

This case study shows that clinical care for infants demands an overlap between the production of body knowledge and its functions (BS), and the psychic constitution and its functioning (BI), since such imbrication is directly related to human evolution. Early intervention in infants should produce broad effects in all evolutionary aspects and not only one aspect of development. For this research, using the perspective of a Hypothesis of Psychomotor Functioning, it was proposed to consider the baby as a subject that uses his resources to produce social relationships. His skills, in the form of a gesture, are used to produce a meeting with his parents. But when this gesture is not so skillful, it can be taken as an obstacle that hinders the baby and his parents to construct their actions (function of son and function of parents). Therefore, the issue is not to invest in treatments with a focus on the motor - to walk, for example - but to propose strategies in which walking makes sense, from the possibility of addressing this action to the mother, the father, and others. As an effect, T. evolved in walking, in

cognition, in language, but the treatment was in the reunion between a mother and a father, willing to acknowledge the daughter's acquisitions and considering that the past would no longer produce the catastrophic effects hitherto experienced and with that, the future was open.

References

BORTAGARAI, F.; PERUZZOLO, D. L.; SOUZA, A. P. R. A interconsulta como dispositivo interdisciplinar em um grupo de intervenção precoce. *Distúrbios da Comunicação*, São Paulo, v. 27, n. 2, p. 392-400, 2015.

CRESTANI, A. H.; MORAES, A. B.; SOUZA, A. P. R. Análise da Associação entre Índices de Risco ao Desenvolvimento Infantil e Produção Inicial de Fala Entre 13 e 16 Meses. *Revista CEFAC*, São Paulo, v. 17, n. 1, p. 169-176, 2015.

ESPOSITO, G.; VENUTI, P. Symmetry in infancy: analysis of motor development in autism spectrum disorders. *Journal Symmetry*, Barcelona, v. 1, p. 215-225, 2009. Disponível em: <www.mdpi.com/journal/symmetry>. Acesso em: 10 abr. 2015.

FERNANDES, L. V. et al. Avaliação do neurodesenvolvimento de prematuros de muito baixo peso ao nascer entre 18 e 24 meses de idade corrigida pelas escalas Bayley III. *Jornal de Pediatria*, Rio de Janeiro, v. 88, n. 6, p. 471-478, 2013. Disponível em: <http://www.ncbi. nlm.nih.gov/pubmed/23172131>. Acesso em: 6 mar. 2012

FLORES, V. Entre o dizer e o mostrar: a transcrição como modalidade de enunciação. *Revista Organon*, Porto Alegre, v. 20, n. 40-41, p. 61-75, 2006.

GOLSE, B. O autismo infantil, a intersubjetividade e a subjetivação entre as neurociências e a psicanálise. In: MARIN, I. K.; ARAGÃO, R. O. (Org.). *Do que fala o corpo do bebê*. São Paulo: Escuta, 2013. p. 263-278.

GURKA, M. J.; LO CASALE-CROUCH, J.; BLACKMAN, J. A. Long-term cognition, achievement, socioemotional, and behavioral development of healthy late-preterm infants. *Archives of Pediatrics & Adolescent Medicine*, Chicago, v. 164, n. 6, p. 525-532, 2010. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/20530302>. Acesso em: 20 nov. 2015.

JERUSALINSKY, A. *Para compreender a criança:* chaves psicanalíticas. São Paulo: Instituto Langage, 2011.

KUPFER, M. C. et al. Predictive value of clinical risk indicators in child development: final results of a study based on psychoanalytic theory. *Revista Latinoamericana de Psicopatologia Fundamental*, São Paulo, v. 13, n. 1, p. 31-52, 2010.

LAZNIK, M. C. *A voz da sereia*: o autismo e os impasses na constituição do sujeito. Salvador: Ágalma, 2013.

LEVIN, E. *A função do filho*: espelho e labirintos da infância. Petrópolis: Vozes, 2001.

LEVIN, E. *A clínica psicomotora*: o corpo na linguagem. Petrópolis: Vozes, 2011.

LIMA, E. M. F. A.; OKUMA, D. G.; PASTORE, M. N. Atividade, ação, fazer e ocupação: a discussão dos termos na Terapia Ocupacional brasileira. *Cadernos Brasileiros de Terapia Ocupacional*, São Carlos, v. 21, n. 2, p. 243-54, 2013. http://dx.doi.org/10.4322/cto.2013.026.

LIMA, E. M. F. A.; PASTORE, M. N.; OKUMA, D. G. As Atividades no Campo da Terapia Ocupacional: mapeamento da produção científica dos terapeutas ocupacionais brasileiros de 1990 a 2008. *Revista de Terapia Ocupacional da USP*, São Paulo, v. 22, n. 1, p. 68-75, 2011.

NAGY, E.; MOLNAR, P. Homo imitans ou homo provocans? Modelo de imprinting a partir de imitação neonatal. In: BUSNEL, M. C.; MELGAÇO, R. G. *O bebê e as palavras:* uma visão transdisciplinar sobre o bebê. São Paulo: Instituto Langage, 2013. p. 54-63.

NOBRE, M. R. C. et al. A Prática Clínica Baseada em evidências: Parte III Avaliação Crítica das Informações de Pesquisas Clínicas. *Revista Associação Médica Brasileira*, São Paulo, v. 50, n. 2, p. 221-228, 2004.

OLLIAC, B. et al. Infant and dyadic assessment in early community-based screening for autism spectrum disorder with the PREAUT grid. *PLoS One*, San Francisco, v. 12, n. 12, p. 1-22, 2017. Disponível em: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0188831>. Acesso em: 2 mar. 2018.

OUSS, L. et al. Infant's engagement and emotion as predictors of autism or intellectual disability in West syndrome. *European Child & Adolescent Psychiatry*, Toronto, v. 23, n. 3, p. 143-149, 2014. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/23728914>. Acesso em: 8 maio 2014.

PERUZZOLO, D. L. et al. Contribuições à clínica da Terapia Ocupacional na área da intervenção precoce em equipe interdisciplinar. *Cadernos Brasileiros de Terapia Ocupacional*, São Carlos, v. 23, n. 2, p. 295-303, 2015.

PERUZZOLO, D. L.; SOUZA, A. P. R. Uma hipótese de funcionamento psicomotor como estratégia clínica para o tratamento de bebês em intervenção precoce. *Cadernos Brasileiros de Terapia Ocupacional*, São Carlos, v. 25, n. 2, p. 427-434, 2017.

PRETTO, J.; RAMOS, A. P.; MORAES, A. B. Análise da relação entre depressão materna e indicadores clínicos de risco para o desenvolvimento infantil. *Revista CEFAC*, São Paulo, v. 16, n. 2, p. 500-510, 2014.

RODRIGUES, O. M. P.; BOLSONI-SILVA, A. T. Efeitos da prematuridade sobre o processo de desenvolvimento de lactentes. *Revista Brasileira de Crescimento e Desenvolvimento Humano*, São Paulo, v. 21, n. 1, p. 111- 121, 2011.

ROSE, D. Análise de imagens em movimento. In: BAUER, M. W.; GASKELL, G. *Pesquisa qualitativa com texto, imagem e som.* Petrópolis: Vozes, 2002. p. 343-364.

SURREAUX, L. *Linguagem, sintoma e clínica em clínica de linguagem*. 2006. 202f. Tese (Doutorado em Letras) – Universidade Federal do Rio Grande do Sul, Porto Alegre, 2006.

VENDRUSCOLO, J. V.; SOUZA, A. P. R. Intersubjetividade no olhar interdisciplinar sobre o brincar e a linguagem de sujeitos com risco psíquico. *Revista CEFAC*, São Paulo, v. 17, n. 3, p. 707-719, 2015.

YIN, R. K. *Estudo de caso:* planejamento e métodos. Porto Alegre: Bookman, 2001.

WALLON, H. *A evolução psicológica da criança*. São Paulo: Martins Fontes, 2007.

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