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Comparison between language assessments in childhood and its relationship to psychic risk

Comparação entre avaliações de linguagem na infância e sua relação com risco psíquico

Comparación entre las evaluaciones lingüísticas en la niñez y su relación con el riesgo psíquico

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Abstract

Objective: To compare the results of language assessments obtained by protocols centered on children's abilities with the results of an enunciative analysis in cases of language delay, relating them to the psychism. **Method**: A qualitative, longitudinal case study with three 24-month-old children. They were evaluated in their language skills through the DENVER II and BAYLEY III protocols. The enunciative evaluation was carried out by means of the analysis of the videos of the interactions between the mothers and the babies from which the enunciative mechanisms and strategies were identified. The psychological risk was evaluated through the Clinical Indicators for Infant Development (IRDI) and PREAUT Signs, and it was compared with M-CHAT. **Results:** The language evaluations demonstrated that the Bayley III test is more sensitive to delay in the grammatical domain than the Denver II. The enunciative analyzes demonstrated the limitation in the enunciative mechanisms in the case of more severe psychic risk, but also the linguistic potential of the children. **Conclusion**: The comparison made it possible to identify the difference between standardized tests and the enunciative evaluation, since the limitation in enunciative

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mechanisms and some items related to speech addressing to the other in the Bayley III test allowed to identify the language limitations related to the changes in intersubjectivity.

Keywords: Infant language; Evaluation; Psychic symptoms.

Resumo

Objetivo: Comparar os resultados das avaliações de linguagem obtidas por protocolos centrados nas habilidades das crianças com os resultados de uma análise enunciativa em casos de atraso de linguagem, relacionando-os ao psiquismo. **Método:** Estudo de caso longitudinal, qualitativo, com três crianças de 24 meses. Elas foram avaliadas em suas habilidades linguísticas por meio dos protocolos DENVER II e BAYLEY III. A avaliação enunciativa foi realizada por meio da análise dos vídeos das interações entre as mães e os bebês a partir dos quais foram identificados os mecanismos e estratégias enunciativas. O risco psíquico foi avaliado por meio dos Indicadores Clínicos de Referência ao Desenvolvimento Infantil (IRDI) e Sinais PREAUT e comparado aos resultados do MCHAT. **Resultados:** As avaliações de linguagem demonstraram que o teste Bayley III é mais sensível ao atraso no domínio gramatical do que o Denver II. As análises enunciativas demonstraram a limitação nos mecanismos enunciativos no caso de risco psíquico mais grave, mas também as potencialidades linguísticas das crianças. **Conclusão**: A comparação permitiu identificar a diferença entre testes padronizados e a avaliação enunciativa, pois a limitação em mecanismos enunciativos e em alguns itens relacionados ao endereçamento da fala ao outro no teste Bayley III permitiu identificar as limitações de linguagem relacionadas com as alterações na intersubjetividade.

Palavras-chave: Linguagem Infantil; Avaliação; Sintomas psíquicos.

Resumen

Objetivo: Comparar los resultados de lãs evaluaciones de lenguaje obtenidas porprotocolos centrados en las habilidades de los niños com los resultados de um análisis enunciativo em casos de retraso Del lenguaje, relacionando los al psiquismo. **Método**: Estudio de casos longitudinal, cualitativo, contresniños de 24 meses. Se evaluaron en sus habilidades lingüísticas a través de losprotocolos DENVER II y BAYLEY III. La evaluación enunciativa fue realizada por médio del análisis de los videos de lãs interacciones entre las madres y los bebés a partir de loscuales se identificaron lós mecanismos y estratégias enunciativas. El psiquismo fue evaluado por medio de los Indicadores Clínicos de Referencia al DesarrolloInfantil (IRDI)y Señales PREAUT, y se ha comparado com M-CHAT.**Resultados**: Las evaluaciones de lenguaje demostraron que la prueba Bayley III ES más sensible al retraso em el domínio gramatical que el Denver II. Los análisis enunciativos demostraron La limitación en los mecanismos enunciativos enel caso de riesgopsíquicomás grave, perotambién las potencialidades lingüísticas de los niños. **Conclusión**: La comparación permitió identificarla diferencia entre pruebas estandarizadas y La evaluación enunciativa, pues La limitación em mecanismos enunciativos y em algunos ítems relacionados al direccionamientodelhabla al outro em laprueba Bayley III permitieron identificar lãs limitaciones de lenguaje relacionadas con los câmbios em La intersubjetividad.

Palabras claves: Lenguaje Infantil; Evaluación; Síntomas psíquicos.

Introduction

The application of standardized tests in the language assessment of children who have a delay in language acquisition or suspect language disorder is common in speech-language pathology. These tests allow a comparison of the children's comprehension and speech production skills in relation to an expected average in the speaking population of a particular language or comparing to children from some specific country. This is true for instruments such as the Denver Developmental Screening Test II (DENVER II)[1,2], which assesses the domains of language, fine and gross motor skills, and personal-social skills. This test has been used in Brazilian clinical context[1,2], as well as the Bayley Scales of Infant and Toddler Development - Third Edition (Bayley III), which is standardized with normative references for children from one to 42 months of age. This instrument, in turn, is divided into five subscales, among which are language and cognition. The language scale assesses primary language skills for the child's communication, while the cognitive scale discusses how the child thinks, reacts, and learns on the world around her. Several studies indicate the Bayley III scale as a benchmark for the assessment of infants[4-7].

In general, these tests are more focused on children's abilities by relying on classical views of language acquisition such as psycholinguistics, especially with an inattentive inspiration,[8] without taking into account principles such as intersubjectivity that show the importance of the adult in the enunciative support of the child during the acquisition process, as shown in the language items of Bayley III at 24 months when compared to those of Denver II, as presented in Chart 1.

Differently, the assessment guideline of enunciative-discourse inspiration allows us to address the functioning of children's language in relation to the adult exercising parental functions. This allows the formulation of a hypothesis of language functioning in which the symptom of language can be heard in the clinic with the child[9,10] and to plan an intervention that includes family members and not only the child. It allows us to understand how the functioning of language is linked to the psyche[9], since language is as structural as the biological, cognitive and psychic aspects[9,10]

In this enunciative perspective, the intersubjectivity principle seems to be extremely important in understanding the functioning of children's language in children with language delays and psychic risk, since their linguistic interactions are changed depending on the interlocutor, when they are analyzed in a dialogue situation, which may allow a better understanding of the direction of intervention. The enunciative perspective enables the inclusion of the subject in the linguistic context[10,11].

In comparative terms it can be said that while classical psycholinguistic analysis focuses on aspects such as vocabulary, syntax, morphology, phonology and pragmatics, focusing on understanding and production of child speech, the enunciative-discursive analysis focuses on the use of grammar knowledge in dialogue as the listener and seeks to understand which speech or discursive position the child can take in a dialogue with adults and other children. The speech-language pathologist is responsible for questioning what elements each assessment can bring to the intervention. It is believed that this depends not only on the language conception of that person, but also on the conception of the subject taken by the professional. When the language conception includes the subject, it is necessary to observe how the subject operates in the language and not only the mapping of the grammatical subdomains[10,11]. In this sense the intervention will be based on this information and will include not only the baby or child, but also their primary caregivers[11].

Therefore, this study aims to compare the results of language assessments obtained by protocols focused on children's abilities with the results of an enunciative analysis in cases of language delays in infants of 24 months of age, with and without a history of psychic risk.

Method

This is a longitudinal case study of qualitative character in which the subjects were subjected to language assessments, psychic risk assessment and auditory evaluation in the first two years of life.

The convenience sample consisted of three cases chosen from a larger sample of children monitored in the research project approved by the Research Ethics Committee of the University under CAEE no. 28586914.0.0000.5346. The criteria for selecting the subjects for this case study were: presence/absence of variables, such as psychological risk, being autistic and non-autistic, prematurity,

and one case of language acquisition delay, with no evidence of psychic risk. Thus, the sample was composed as follows: a premature child with language delay without psychic risk (P.) and two full-term infants with language delay and psychic risk (A. and R.). Child A. represents the psychic risk of non-autistic nature while the child R. represents the psychic risk of autistic nature.

The purpose of this study was to read the history of each child from the tests collected in a primary health unit, from the observation and recording of mother-infant interactions for language analysis, psychic risk assessment: RICD[12] (see Chart 1) and PREAUT signs [13] (see Chart 2). The results of both instruments were compared to the M-CHAT-Modified Checklist for Autism in Toddlers[14], which is a conventional instrument of risk for autism in developmental perspective. The results were also confronted with the application of language development assessments in infants (DENVER II[1] and BAYLEY III[3]). In addition to these evaluations, the results of the auditory evaluation were analyzed through the BAEP (Brainstem Auditory Evoked Potential) of the premature child in 1, 6, 12 and 24 months.

The RICD establishes a set of observable items in the first 18 months of the child's life, based on psychoanalytic theory, whose absence may indicate a disturbance of the child's clinical course. The 31 items of the protocol were analyzed according to four age groups organized from the first four months of life (phase I), between four and eight months of life (phase II), between eight and twelve months of life (phase III) and between twelve and eighteen months of life (phase IV). These items were based on four theoretical axes: definition of demand, subject assumption, switching, presence and absence, and paternal function[12], as shown in Chart 1.

Chart 1. Risk indicators to child development

Age Range	RICD
1Y 3 months 29d	1- When the child cries or screams, the mother already knows what the child wants. 2- The mother speaks to the child in a way particularly directed to the child (baby talk). 3- The child reacts to the baby talk. 4- The mother proposes something to the child and waits for the reaction. 5- The child and the mother look at each other.
4Y 7 months 29d	6- The child starts to distinguish day from night. 7- The child uses different signals to express different needs. 8- The child asks something to the mother and makes a break to wait for the reply. 9- The mother talks to the child with small sentences. 10- The child reacts (smiles, make noises) when the mother or someone else is talking to him/her. 11- The child actively tries to make eye contact with the mother. 12- The mother supports the child's initiatives without saving their effort. 13- The child asks for help from another person without being passive.
8Y 11 months 29d	14- The mother realizes that some requests from the child may be a way to get her attention. 15.-During physical care, the child actively seeks loving games and play with their mother. 16- The child seems to like or dislike something. 17- Mother and child share a particular language. 18- The child seems uncomfortable with people unknown to him/her. 19 -The child has his/her favorite objects. 20- The child makes jokes. 21- The child looks to adult for approval. 22- The child accepts semi-solid, solid and mixed feeding.
From 12 to 18 months	23- The mother alternates moments dedicated to the child with other interests. 24- The child tolerates the mother's brief absences, but reacts to prolonged absences. 25- The mother offers toys as alternatives to the child's interest in the mother's body. 26- The mother no longer feels obliged to satisfy everything the child asks for. 27- The child seems curious about things that matters to the mother. 28- The child likes to play with objects used by his/her parents. 29- The mother begins to ask the child to name what he/she wants, asking for more than gestures. 30- Parents set a few rules of behavior for the child. 31- The child differentiates objects from the mother, the father and from their own objects.

Source: Kupfer, (2008)

On the other hand, the research of the PREAUT Signs has a more specific purpose to detect the risk of evolution for autism. This questionnaire analyzes the baby's reactions to the baby talk, made by the mother or the primary caregiver, as well as whether or not there is an initiative to attract adult attention after the baby talk has ceased[13]. As shown in the table, this protocol was analyzed in the fourth and ninth month of life of the child, as provided in Chart 2.

Chart 2. Preaut signs questionnaire

QUESTION	ANSWER	VALUE
1) Does the baby try to look at you?		
a) Spontaneously	Yes	4
	No	0
b) Only when you talk to him/her (protoconversation)	Yes	1
	No	0
2) Does the baby try to attract the look of the mother (or the primary caregiver)?		
a) Even if the mother does not make any request, the baby vocalizes and gestures while looking at her intensely.	Yes	8
	No	0
b) Only when she talks to the baby (protoconversation)	Yes	2
	No	0
TOTAL SCORE		15
If less than 5, apply questions 3 and 4		
3) Without any incentive from the mother (or the primary caregiver)		
a) The baby looks to the mother (or the primary caregiver)	Yes	1
	No	0
b) The baby smiles to the mother (or the primary caregiver)	Yes	2
	No	0
c) Does the baby seek a pleasant exchange with the mother (or the primary caregiver), for example, by offering or pointing his/her fingers towards her?	Yes	4
	No	0
4) After being encouraged by the mother (or the primary caregiver)		
a) The baby looks to the mother (or the primary caregiver)	Sim	1
	Não	0
b) The baby smiles to the mother (or the primary caregiver)	Sim	2
	Não	0
c) Does the baby seek a jubilant exchange with the mother (or the primary caregiver), for example, by offering or pointing his/her fingers towards her?	Sim	4
	Não	0
TOTAL SCORE		15

Source: Crespin, (2015)

The M-CHAT was developed in order to identify children at risk of autism from 18 months of age, and this study analyzed it after 24 months. It has 23 questions that are divided into matters related to social relationship and joint attention in order to evaluate the emergence of intersubjectivity and, in its absence, the risk of autism[14]. Although its perspective differs from the psyche perspective adopted in this study, it was used in this study due to its value in international literature as a sensitive and specific screening test for autism, as shown in Chart 3.

Chart 3. M-Chat-Modified checklist for autism in toddlers

QUESTION	YES	NO
1. Does your child like movement activities? (For example, being swung or bounced on your knee)		
2. Is your child interested in other children?		
3. Does your child like climbing on things? (For example, furniture or stairs)		
4. Does your child like to hide his/her face or to play hide-and-seek?		
5. Does your child play pretend or make-believe? (For example, pretend to talk on a phone, or pretend to feed a doll or any other make-believe play)		
6. Does your child point with one finger to ask for something or to get help?		
7. Does your child point with one finger to show you something interesting?		
8. Can your child play properly with small toys (for example, cars or blocks) without just putting them in his/her mouth, moving the toy, or letting the toy fall?		
9. Does your child show you things by bringing them to you or holding them up for you to see — not to get help, but just to share?		
10. Does your child look at you in the eye for more than a second or two?		
11. Does your child get upset by everyday noises? (For example: covering the ears)		
12. When you smile at your child, does he or she smile back at you?		
13. Does your child try to copy what you do? (For example, wave bye-bye, clap, or make a funny noise when you do)		
14. Does your child respond when you call his or her name?		
15. If you point at something across the room, does your child look at it?		
16. Does your child walk?		
17. If you turn your head to look at something, does your child look around to see what you are looking at?		
18. Does your child make unusual finger movements near his or her eyes?		
19. Does your child try to get you to watch him or her?		
20. Have you ever wondered if your child might be deaf?		
21. Does your child understand when you tell him or her to do something?		
22. Does your child sometimes turn upside-down, "looking out of nowhere" or walking in the wrong direction?		
23. If something new happens, does your child look at your face to see how you feel about it?		

Fonte: Muratori (2014)

Items expected for this age group are summarized in Chart 4.

The Bayley III scale is an instrument for the evaluation of children from one to 42 months of age, with or without disabilities. Developmental assessment is conducted in five areas: cognitive, motor, linguistic, social–emotional and adaptive behavior. The application of the instrument is considered easy (30 to 90 minutes) and involves activities with toys that facilitate the interaction of the baby/child with the examiner[3]. This research included the language subsection and it was applied by a speech-language pathologist with specific training in the protocol. As the speech-language pathologist recorded the application, the study will analyze the principles of intersubjectivity and relation to form sense during the application of the language subsection.

The Bayley III test was performed individually with the child and the guardian. The test began with a brief explanation of its purpose and the guardian was asked to not interfere with the activities (unless requested), as the question could not be scored.

Language item is divided into receptive communication and expressive communication in the Bayley III test. Receptive communication addresses items related to pre-verbal behavior, vocabulary development, the child's ability to identify objects and images, among others. While expressive communication includes items of pre-verbal communication, such as babbling, gesturing, vocabulary development, naming objects and images, etc.[3].

On the other hand, the Denver II test was designed for health professionals to screen the development in children from 0 to 6 years of age[2]. This test consists of 125 items, which are divided into four areas: personal-social, fine motor - adaptive,

Chart 4. Items expected for 24 months in Denver II and Bayley III assessments

DENVER II - Language in 24 months	BAYLEY III - Language in 24 months
18- point 2 pictures 19- combine words 20- name 1 picture 21- name or understand body parts 22- point 4 pictures 23- speech half understandable	RECEPTIVE COMMUNICATION 15- identify 1 object 16- identify 1 object in the room 17- identify 1 picture 18- understand corrective words 19- identify 3 objects 20- follow orders from someone (e.g., to feed a doll) 21- identify 3 pictures EXPRESSIVE COMMUNICATION 20- name 1 object 21- combine words and gesture 22- name 1 picture

language and gross motor. Some items require the child to perform certain tasks, while others require the report of the guardian. Each of the evaluated items is classified into: normal, caution or delay. Results are considered "normal" when the child performs the activity predicted for the age; while "caution", when the child does not perform or refuses to perform an activity that is already done by 75 to 90% of the children of that age; and "delay", when the child does not perform or refuses to perform an activity that is already performed by more than 90% of those of that age[1,2]. It was applied by researchers before or after the recordings of mothers and babies.

BAEP (Brainstem Auditory Evoked Potential) are objective assessments of electrical neuroelectric activity in the auditory pathway (from the auditory nerve to the cerebral cortex) in response to an acoustic stimulus[15], reflecting the acoustic and temporal characteristics of the stimulus. This electrophysiological evaluation enables us to obtain information on the arrival of the auditory stimulus to the cortex and early cortical processing. From this stimulation it is possible to know if the sound signal has been received properly in the auditory cortex, becoming, in this sense, an instrument for functional auditory sensitivity assessment in a more complete way. This evaluation analyzes the waves generated by the frequent stimuli, as they are components that cover areas of the primary auditory cortex (upper temporal lobe), secondary and limbic system with the interference of the maturational process and that do not depend on the patient's response[16].

The study also analyzed videos of mothers interacting with their babies and videos of the babies

Chart 5. Enunciative mechanisms and strategies

1st enunciative mechanism: the relations of conjunction I-you and of disjunction I/ you.	I – presentation by the "I" of sound structures indistinct from the use of the "you"; II – instantiation by the "you" of routine family structures to the "I" that fills its enunciative place with gestures and verbalizations; III – requests from "I" to "you"; IV – recognition of the "I" about the effect of filling its enunciative place on the "you";
2nd enunciative mechanism - the semantization of the language and the construction of the co-reference by dyad (I-you)/ he.	I – deictic nomination produced by the "I" near a referent; II - comments and deictic requests constituted by the reference relation of the "I" and the co-reference of the "you", given the presence of a referent; III – marking the position of the "I" in the discourse on the "he/she" for the "you" in a deic and discursive way; IV – repetition of the "you" saying in the "I" discourse; V – reformulation of the "I" on the reference of the "you" (reflexivity marks); VI – combination of words in the "I" discourse: a) structure with inverted words in the sentence; b) structure with ordered words in the sentence; VII – adjustments of the meaning between "I" and "you": a) repetition of the "I" in the face of the lack for understanding of the "you"; b) lack of understanding of the "I" about the saying about the "you"; c) Return of non-specific form of the saying of the "I" with specific form in the saying of the "you";
3rd enunciative mechanism: the introduction of the subject in language-discourse.	I - functions of the enunciative apparatus: a) through demand; b) through interrogation; II – of the apparatus of forms of instantiation of the I: a) use of "us"; b) oscillation between third and first person; c) use of I in the verb; d) instantiation of the name; e) reference update to the speaker with the pronominal form "I"; III – Mechanisms of instantiation of the double enunciation by the "I": a) recovery of the previous speech by the "I" through the induction of "you"; b) constitution of the report of actions and the position of the "I" with the definition of the relation between present and past linguistic times; c) constitution of the saying and the position of the "I": c.1) by projection of the "I" of new enunciation; c.2) by resumption of the "I" of previous enunciation; d) simulation of "I" of another enunciation, the child playing with the others through language.

Source: Silva (2009).

with the examiner for 15 minutes from enunciative mechanisms and strategies[8]. The enunciative mechanisms and strategies are described in Chart 5 in order to provide an understanding of the logical operations involved in the analysis.

The analysis was descriptive and by comparison of the different instruments and protocols, as follows: a) scores obtained in the DENVER II and BAYLEY III language tests; b) results obtained in the RICD, PREAUT Signs and MCHAT at 24 months of age for presence or absence of psychic risk; and c) analysis of enunciative mechanisms and strategies.

The following is a summary of the stages of the research:

- Up to one month of babies - Newborn Bloodspot Test, reading and signing of FPIC, initial interview and BAEP;
- Between 3 months and 1 month and 4 months and 29 days - first stage of RICD, PREAUT Signs, DENVER II, recording of children sitting in baby seat facing their mothers, then mothers were asked to sing (3 minutes), to talk to the baby (3 minutes) and the baby should interact with a toy provided by the mother (3 minutes); in addition to 6 minutes with the baby lying on the mat and interacting with the mother.
- Between 5 months and 1 day and 6 months and 29 days - second stage of RICD, DENVER II and recording as in the previous stage. Conduction of BAEP
- Between 8 months and 1 day and 9 months and 29 days - third stage of RICD, PREAUT signs, DENVER II and recording in which the baby should be sitting on a mat with the mother and

a box with toys for the age group. This was a free 15-minute recording.

- Between 11 months and 1 day and 12 months and 29 days - DENVER II and recording as in the previous age group. Conduction of BAEP
- Between 17 months and 1 day and 18 months and 29 days - fourth stage of RICD, DENVER II, recording as in the previous age group, including the researcher in the last 5 minutes. Conduction of BAEP Bayley III assessment.
- Between 23 months and 1 day and 24 months and 29 days - DENVER II, recording as in the previous age group, including the researcher in the last 5 minutes. Application of MCHAT to the mother before recording and verification of responses in the recording and interaction with the researcher. Conduction of BAEP Bayley III assessment.

The interview, recording and application of RICD, PREAUT Signs, Denver II and MCHAT were performed at the healthcare facility. BAEP evaluation was performed at the University Hospital near the unit. On the other hand, Bayley III assessments were performed by a colleague specializing in this evaluation in the speech-language pathology care or in the residence of one of the children who could not attend the service.

Recording was viewed by the speech-language pathologists of the research in order to identify the mechanisms and enunciative strategies. The RICD guideline and PREAUT Signs were applied during the observation of the babies in the unit and also checked on the recording by the team counselor and psychologists.

Table 1. Results of language assessments and psychic risk

Subject	A.	R.	P
Bayley III 24 months	47 Extremely Low	47 Extremely Low	79 Borderline
Denver II – 24 months	83 Suspect	0 Changed	100 Normal
RICD Missing indicators Classification	1, 3, 4, 6, 7, 8, 11, 13, 16, 17, 18, 20, 21 At risk	1, 4, 5, 8, 9, 11, 12, 13, 15, 17, 20, 21, 22 At risk	None Without risk
PREAUT signs scores missing	4m=9 and 9m= 9 4m=2a, 2b, 3a, 3b, 3c, 4c 9 m=2a, 2b, 3a, 3b, 3c, 4c	4m=3 and 9m=7 4m=1a, 1b, 2a, 2b, 2c, 3a, 3b, 3c, 4c 9m=2nd	4m and 9m =15 None
Direction of risk	Non-autistic nature	Risk for autism at 4m	Without risk
MCHAT at 24 months	Without risk	At risk for autism	Without risk
Enunciative mechanisms and strategies	2nd - II, III, IV and VIb 3rd - Ib	1st - I, II	2nd - I, II, IV

Table 2. Analysis of enunciative mechanisms and strategies

	1st Mechanism: *the relations of conjunction I-you and of disjunction I/you.*	**2nd Mechanism:** *the semantization of the language and the construction of the co-reference by dyad (I-you)/he.*	**3rd Mechanism:** *the introduction of the subject in language-discourse.*
A	He has by logical implication	**Strategies** II) When asked where the toy is, he responds to the mother with deictic pronoun "here". Child says "Look, mom" showing toy. IV) The mother asks the child to say "boi, auau, pintinho" and he repeats it. VI)b - Child says "dá mama". This is a request for breastfeeding.	**Strategy:** Ib=Child talks to mother and asks: "Dad?"
R	**Strategies:** I) Child vocalizes something unintelligible in a play that the mother does and she seems to like it. II) Imitates the mother with a gesture.	Absent	Absent
P	He has by logical implication	**Strategies:** I) Child says "ati" for car toy. II) Child asks for ball to the mother by saying "a bo, a bo". IV) The mother speaks: "the cat", and then the child repeats: "The cat".	Absent

Results

This section starts with a summary of the results obtained in the evaluations, and then explores each case individually. They are arranged in Tables 1 and 2.

Case A. - A full-term male baby (39 weeks of gestational age, 3400 grams at birth, with apgar score 10 in the first and fifth minutes). He has an older sister at the age of eight. A. was planned and desired by the parents who lived with the children in a rural property. The child received exclusive breastfeeding until the sixth month of life, although he choked at times. The mother of R. did not mention any psychic distress during pregnancy or postpartum. Although she used baby talk showing pleasure in being with her baby, the mother had difficulties in understanding the requests of her baby during the first stage of the investigation, that is, difficulties in establishing the demand considering the theoretical axes of the RICD.

As for sociodemographic data, the mother had completed high school, but did not work, as she was a homemaker, and the per capita income of the family was three hundred and fifty-seven Brazilian reais.

Case R. - full-term male baby (39 weeks, 2905 grams, apgar score 9 in the first minute and 10 in the fifth minute), with unplanned pregnancy. During the pregnancy, the mother discovered that R.'s father had an affair and that he had impregnated another woman. Despite this, the couple tried to live together, but they separated when the boy was only nine months old.

The pregnancy was very difficult. She had placental displacement and very severe pain. And this suffering remained in the post-pregnancy due to the difficulties with the father.

From the beginning, R. presented difficulties in contact with others, and moments of intense suffering, especially in the face of strong sensory stimuli. He suffered from gastroesophageal reflux and he was treated until 24 months of age. He fed well until this age, but then he developed a major food-selectivity after discontinuing the medication to the gastroesophageal reflux.

Due to the signs of psychic risk, R. received early intervention from 10 to 12 months of age with an occupational therapist. From the age of 18 months he is being called to resume therapy, but the mother is not able to take him there. He is resuming home care at 38 months of age with a speech-language pathologist and he is expected

to resume the therapy in 2018 with another occupational therapist due to food-selectivity and persistent language delay.

Case P. - preterm male baby (32 weeks and 3 days, 1445 grams, apgar score 4 in the first minute and 7 in the fifth minute), with unplanned pregnancy. The mother became pregnant at the age of 35, and she had other children of 18, 16 and 10 years of age. The parents were married during pregnancy and at birth, but they separated in the second year of life of P. The mother reported no complications during pregnancy, as well as those referring to psychic distress in the pre and postpartum period.

According to Chart 3, P. did not present any psychic risk nor to the development in the assessments (PREAUT, MCHAT and RICD).

Chart 3 shows the results obtained in the analysis of the assessments of the three cases.

It can be noticed that A. and R. have a risk score in Bayley III test, which is not reflected in the Denver II screening test - the language aspect does not distinguish well the three subjects. It is also possible to observe that the greater involvement of R. and P., both with psychic risk, is in the Bayley III test.

The differences are clearer in the analysis of the enunciative mechanisms, which seek to observe the linguistic interaction, since only A. has the third mechanism showing greater linguistic potentiality than R., who only has the first mechanism, and P., who has the second and the first, for logical implication. Therefore, from an enunciative point of view A. has more potentialities than the two other subjects as it can be seen in the examples in Chart 4.

In the case of A. at four months, in psychic terms, it is evident the difficulty of the mother to understand the request and suppose a subject (indicator 1 - When the child cries or screams, the mother already knows what the child wants) and to switch presence and absence (indicator 4 - The mother proposes something to the child and waits for the reaction.). It was possible to observe in the analysis of the PREAUT signs that A. did not present the third time of the drive circuit, although he could spontaneously seek both the examiner and the mother (signal 1A). Regarding stage II of the RICD, he showed difficulties in differentiating the day from night (indicator 6), in using different signs to express himself (indicator 7) and in requesting something from his mother and waiting for her response (indicator 8). He also did not actively try to make eye contact with the mother (indicator 11) and did not request help (indicator 13). Therefore, there were difficulties in the performance of both parental functions, which persists in stage III in which A. did not seem to be uncomfortable with unknown people (indicator 18), did not demonstrate to like or dislike something (indicator 16), did not establish a particular language with mother (indicator 17), and did not make jokes (indicator 20). Therefore, there was no dynamics of alienation separation established. Despite these difficulties in the RICD and PREAUT signs guidelines, A. was not at risk at 24 months of age according to the M-CHAT analysis, since it was not an autistic difficulty, but a difficulty in the bond due to failures in the performance of parenting functions.

The delay presented by A. in the Bayley III test is evident by the extremely low score in the language and by the result, as suspect, in the DENVER II test. On the other hand, it is possible to observe the potentiality of A. in the enunciative analysis. However, as shown in the examples in Chart 4, it can be noticed that although he presents strategies of the three enunciative mechanisms, he seems to have a language functioning linked to requests for repetition of words by the mother or to the request for his mother. It is not possible to notice a good dialogue support with A. on the part of the mother in the recording.

Despite having scored on two tasks in the Bayley III test, baby R. scored zero in the receptive communication item, as he did not perform three consecutive tasks, as indicated by the test rules. It is possible to identify significant items of language development that R. was not able to perform, such as: child does not look at the person momentarily, child does not calm down when people talk to him/her, child does not look around, and child does not respond or interrupts activity when they call for his/her attention. With respect to expressive communication, he makes at least a combination of consonant with vowel, participates in playful routines, and speaks expressively. However, he does not use a word approximation (e.g., looking at the baby bottle and asking for "*mamá*"), does not imitate words and does not initiate interaction with plays.

In this case, grammatical limitations are evident both in the evaluation of the Bayley III and DENVER II tests, as in the intersubjective limitations in the process of semantization of the lan-

guage verified in the enunciative analysis, since R. does not seek the interlocutor and did not develop minimal language knowledge. This delay shows the harmful effects of autism both in the construction of grammatical knowledge and in the support of an enunciative position by his mother and him, as there is no emergence of signs of dialogue between them. The mother talks to him in a way that does not seem to be much related to what R. seems to be feeling and he is unable to summon her and to process what the mother is telling him. This can be clearly noticed when looking at the results of the RICD and PREAUT signs.

When analyzing the results of the psychic assessments, baby R. shows clear signs of an autistic structure, because he did not spontaneously seek the adult, whether the examiner or the mother, and did not seek to elicit pleasant exchanges with them (as seen in the absent PREAUT signs) and in some indicators, such as 5 (child and the mother did not look at each other), and he did not react to the baby talk (indicator 3). R.'s mother had trouble proposing something and waiting for the child's response (indicator 4) and also when trying to figure out what he wanted when he cried, since much of his crying was related to possible consequences of sensory distress (body hypersensitivity) and to the presence of gastroesophageal reflux.

In the second stage of the RICD assessment, he did not wait for the maternal response to his requests (indicator 8), he also did not actively seek to make eye contact with his mother (indicator 11) and he just remained passive without asking for help (indicator 13). The mother, in turn, did not talk to him with small sentences (indicator 9) and showed difficulties to support the baby without saving him effort (indicator 12). Difficulties remained in stage III due to the lack of a pleasant exchange with the mother (indicator 15), they also did not share a particular language (indicator 17), R. did not make jokes (indicator 20), he did not look to an adult for approval, which is an intersubjective behavior (indicator 21) and he did not accept semi-solid, solid and mixed feeding. These difficulties were confirmed by the risk for autism still present in M-CHAT at 24 months of age.

It is important to emphasize that baby R. was submitted to an early intervention focused on the initial alienation process, with psychomotor and play strategies to attract him into the relationship. This therapy was conducted by an occupational therapist trained in psychoanalysis and it lasted two months, when he had 10-12 months of age. At some moments in the history of this baby, he presented the emergence of PREAUT Signs at 12 months of age, but he was still referred for intervention due to the non-overcoming of the risk after discontinuation of this intervention between 10 and 12 months of age.

Baby P., with no psychic risk, presented average and borderline scores in the Denver II and Bayley III tests, respectively. In this case the enunciative guideline showed the lack of the third enunciative mechanism, which relates to the possibility of being introduced discursively in the language from the functions of the enunciative apparatus, such as interrogation and demand, the inclusion of the subject in the discourse from their own name or the use of the "I" pronoun and the possibility of average and borderline results, respectively. Furthermore, they also differed in the enunciative mechanisms, since P06 showed the lack of the third mechanism in the recordings. It was noted through the Brainstem Auditory Evoked Potential that P. showed higher latency of the P1 component (136ms) when compared to full-term infants who did not have this BAEP component at birth.

P. did not understand corrective words In the Bayley III test, besides not following simple orders and not identifying three items of clothing, body parts and action figures. As for expressive communication, he did not answer questions with "yes" or "no", nor did he make simple sentences, in addition to not being able to name more than one object and one figure. Therefore, he showed a language delay that also was expressed in the emergence of strategies in the second enunciative mechanism, as he was not able to combine words to build sentences. Examples of spontaneous language show that he was beginning to speak his first words. Specific tasks indicated that P. was able to identify objects and book figures, locate objects in the room, directing his attention to others, imitate at least one word, initiate playful interaction, use eight words appropriately, use words to demonstrate wishes, and combine word and gesture. Therefore, the limitations seem to be more present in the grammatical domain than in the intersubjective aspect of language, as it had no psychic risk.

Discussion

This study allowed us to verify that the results of the Bayley III scale and of the enunciative analysis complement each other and that, although the Bayley III assessment is a standardized assessment that focuses more on children's skills, it also covers issues that address the child's reactions to the listener, which allows us to analyze, at least partially, dialogue scenes, as in the items that assess whether the child looks at the person momentarily, or hears when someone speaks or moves, or calms down when they talk to him (items 1,2,3 of receptive language)[3]. In a way, these items assess intersubjectivity, especially the orientation to the people, which allows suggesting that they could be less developed in children with psychic risk. It could be noticed in cases with psychic risk, especially with R., who showed characteristics of autism.

There are studies[17,18] in which the Bayley III scale is ranked as the best scale for assessing children development from 18 months of age, and as data obtained are valid, reliable and objective for the academic community, it is among the best instruments, even when compared to DENVER II, which was observed in this study, in which Denver assessment proved to be unreliable in three of the four cases studied. This finding agrees with another study,[7] which also indicates that the Denver II test is limited and that its results are of questionable value with respect to the screening for developmental delays[19]. Other limitations found in this test are related to the low diagnostic value, since it seems insufficient to assess qualitative changes over time and to detect subtle early developmental disorders[20].

The results of RICD and PREAUT psychic risk assessment guidelines were compatible. Although PREAUT signs are initially designed to detect risk for autism, as well as the RICD, it is sensitive for the presence of other developmental problems, as a risk for psychosis and to language acquisition.[12]. The risk for autism of R., which was identified by the PREAUT signs, was confirmed in the M-CHAT assessment.

However, A. probably would not be treated as for psychic risk if the RICD and PREAUT Signs guidelines were not followed, since the M-CHAT assessment indicated no risk in this case. In this way, the approach used for their language delay would be only the speech-language pathology. This highlights the importance of assessing the psychic risk combined with language assessments,[10] as well as the correct selection of protocols, since the design of M-CHAT is based on the symptoms rather than on the structuring of the psyche, as allowed by the RICD and PREAUT signs guidelines.

Regarding A., the psychic risk is of non-autistic nature. In his case, the risk is more clear in relation to the maternal bond, since he did not present several indicators in the RICD assessment, and that he obtained score 9 in the PREAUT questionnaire. This intermediate score demonstrates that there may be a psychic risk that is presented in the establishment of the bond, but due to difficulties in parental care[20]. Therefore, there is a perceived difficulty in the mother's affinity to the baby's activity and a certain mismatch between them, which did not allow the establishment of the third time of the drive circuit. However, unlike R., the non-establishment of the third time does not mean risk of autism in this case, since A. has orientation to people and seeks them, demonstrating greater difficulty in the relationship with the mother.

The difficulties in the bond concerning A. are evidenced in limitations in the type of dialogue to his mother's requests, in the examples of enunciative mechanisms strategies, although he has the three mechanisms established. In this case, it is clear the need to suggest the functioning of language from the intersubjective look, that is, from the observation of language functioning with the mother[8-10]. It was found that the Bayley III test ranked the language as extremely low, clearly showing the difficulties in language skills. On the other hand, it is possible to notice in the enunciative analysis that A. has great potential to develop linguistic knowledge if there can be a functioning of language in which its discursive autonomy is sustained.

Studies indicate that there is a relation of psychic risk with language delays[10,11], which is clear with A. and R. With respect to P., prematurity seems to be a more important risk factor for the emergence of language delay, both by limitations in the auditory maturation, which is evident in this baby, as shown in his linguistic limitations. In the case of P., there is delay in the language acquisition process through a borderline rating on a standardized assessment, that is, the Bayley III scale, as well as the absence of the third enunciative mechanism. It could be explained by premature birth, as studies

show that premature infants can present developmental delays[21,22].

Still on the results of P. in the Bayley III test, the analysis showed a lower performance in the receptive language than in the expressive language, which corroborates other studies with premature babies[23-26], which also indicated a greater deficit in language comprehension. These results may be related to a delay in the maturation of the auditory pathway as checked through the BAEP. There is a significant difference between latencies and wave amplitudes generated in cortical responses, being increased in premature babies[27].

As for R., there is a psychic risk detected by the three assessments: in the RICD and in the PREAUT Signals, as they cover issues concerning the lack of evidence of the third time of the drive circuit, that is, difficulties in the alienation, and the M-CHAT, of developmental character, that is specific for autism at more advanced ages. The language delay showed in all assessments is also clear. With respect to R. there was a language development that is common to subjects with autism such as the difficulty of learning concepts[28]. This case also highlights the major difficulty in the third enunciative mechanism[9], such as the acquisition of the "I" pronoun, that is, changes that affect both the grammatical and the discursive domain[29].

However, it should be noted that R. performed approximately two months of early intervention with an occupational therapist. It is believed that this intervention facilitated the emergence of the ability to imitate, but it was not enough to develop the language, which questions the idea of a single therapist in these cases.

Studies[30,31] report that, besides language, it is possible to work on social interaction (visual contact and activity sharing) through speech-language pathology intervention. Some aspects should be considered in the therapeutic intervention in autism, including the fact that results take time. R. spent just a little time in therapy, which did not allow to sustain the necessary changes, both in terms of psychic constitution and for the language acquisition process, although it allowed some evolutions[31].

In general, the analysis of cases suggests that the speech-language pathologist should be aware of psychic risk in cases with language delay, as some children will have only the delay (P), and in others it may be associated with a psychopathology that is still in the structuring stage (A) or it is already structured (R). This could be noticed in the outcome of the three cases.

Children A. and R. with psychic risk were referred for early intervention in timely manner, but family members only began to worry and to adhere to the treatment when the language delay emerged. The longitudinal follow-up of infants with a history of psychic risk and development demonstrates the importance of childcare and the facilitation of access to intervention in timely manner, perhaps through strategies closer to the houses of children, since access to the healthcare facility was one of the reasons for not attending the continued intervention, particularly in the case of R.

Conclusion

The comparison made it possible to identify the difference between standardized tests and the enunciative evaluation, since the limitation in enunciative mechanisms allowed to identify the language limitations related to the changes in intersubjectivity. Considering that only one item contemplates this analysis, this was restricted in the Bayley III assessment.

It was also found that the Bayley III scale provides better support as a standardized assessment of grammatical domain when compared to the Denver II scale, which should be more restricted to the screening process.

With respect to the results of the assessment of the cases described, it was found that the association between psychic risk and language delay was more significant in autism than in non-autistic nature. Prematurity was confirmed as a significant biological risk factor to language acquisition due to the effects on both auditory maturation and on the construction of linguistic understanding. Therefore, results report the importance of the speech-language pathologist to be aware of the history of psychic risk in cases of language acquisition delay.

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