

Language of children with Autism Spectrum Disorder (ASD) who use Augmentative and Alternative Communication (AAC) in the perception of mothers using PROFILE - Exploratory study

Linguagem de crianças com Transtorno do Espectro Autista usuárias de Comunicação Suplementar e Alternativa (CSA) na percepção das mães pelo *PROFILE* - Estudo exploratório

Lenguaje de hijos con Trastorno del Espectro Autista (TEA) en la percepción de las madres, según *PROFILE*

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Abstract

Introduction: Autism Spectrum Disorder (ASD) is characterized by persistent difficulties in communication, interaction, and repetitive and restricted patterns. Augmentative and alternative communication (AAC) supports language in limited speech. To develop language, the child needs the other, and mother recognizes her role in the discourse as a communication partner. Few instruments in AAC allow for an understanding of their language, among them Profile – The Pragmatics Profile for People who use AAC, originally in English, with no validated version for Brazilian Portuguese. **Objective:**

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Authors' contributions:

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To understand the perception of mothers of children with ASD, with restricted speech regarding their language, using the Profile. **Method:** Exploratory study approved by CEP nº 47884421.10000.540. Consisting of three mothers of children with AAC, restricted oral language, and AAC users. In data collection, the Profile was used, translated, and adapted by the authors and presents three thematic axes. **Results:** The axis of context and motivation, mothers reported that their children express their preferences in various ways (AAC, body/movement, approximated words and others). Reasons for communication and reactions to communication, they observed a greater use of body movement. Contextual variation, they noted increased interaction between their children and family members. The findings indicate that, in the mothers' perception, restricted oral language is not a limiting factor in their children's linguistic interaction. **Conclusion:** The results provide important insights into the language of the children studied, highlighting the applicability of the Profile in Brazilian contexts, although the findings cannot be generalized due to the sample's limitation.

Keywords: Autism Spectrum Disorder; Mother-Child Relations; Child Language; Non-Verbal Communication.

Resumo

Introdução: O Transtorno do Espectro Autista (TEA) caracteriza-se por dificuldades persistentes de comunicação, interação e padrões repetitivos e restritos. A Comunicação Suplementar e Alternativa (CSA) favorece linguagem na oralidade restrita. Para constituir linguagem, a criança necessita do outro e a mãe reconhece sua atividade no discurso como parceira de comunicação. Poucos instrumentos na CSA possibilitam conhecer sua linguagem, dentre eles, o *Profile – The Pragmatics Profile for People who use AAC*, original em inglês, sem versão validada para o português do Brasil. **Objetivo:** Conhecer a percepção de mães de crianças com TEA com oralidade restrita quanto à sua linguagem pelo Profile. **Método:** Estudo exploratório aprovado pelo CEP nº 47884421.10000.540. A amostra constituiu-se de três mães de crianças com TEA, oralidade restrita e usuárias de CSA. Coletou-se os dados pelo *Profile*, traduzido e adaptado pelas autoras. O *Profile* apresenta quatro eixos temáticos. **Resultados:** No eixo contexto e motivação, as mães referem que as crianças mostram o que gostam de formas variadas (CSA, corpo/movimento, palavras aproximada e outras). Em razões para comunicar e participação na conversa, observam maior uso da movimentação corporal. Em variação contextual, referem maior interação dos filhos com familiares. Os achados evidenciam que, na percepção das mães, a oralidade restrita não é fator limitante na interação linguística dos filhos. **Conclusão:** Os resultados mostram informações importantes da linguagem das crianças estudadas, evidenciando aplicabilidade do Profile em experiências brasileiras, embora não se possa generalizar os achados pela limitação da amostra.

Palavras-chave: Transtorno do Espectro Autista; Relações Mãe-Filho; Linguagem Infantil; Comunicação Não-Verbal.

Resumen

Introducción: Trastorno del Espectro Autista (TEA) se caracteriza por dificultades persistentes en la comunicación, interacción y patrones de comportamiento repetitivos y restringidos. Comunicación aumentativa y/o alternativa (CAA) favorece el lenguaje de estos niños, con oralidad restringida. Para constituir el lenguaje, el niño necesita del otro, e, las madres entran en escena, reconociendo la actividad del niño en el habla y asumiendo un rol importante como compañeras en la comunicación. Para comprender las percepciones de las madres con respecto al lenguaje y la interacción, utilizamos las categorías del *Profile – The Pragmatics Profile for People who use AAC*. **Objetivo:** Investigar la percepción de las madres sobre el lenguaje y la interacción de niños con TEA, oralidad restringida y usuarios de CAA, a partir de las categorías del *Profile*. **Método:** Estudio clínico descriptivo transversal aprobado por el CEP, con tres madres de niños con TEA, oralidad restringida y usuarios CAA. La recopilación, fue utilizado el *Profile*, traducido y adaptado por las autoras. **Resultados:** Las respuestas de los niños varían de tres maneras en la percepción de los demás, lo que significa que cuerpo/movimiento es la forma más utilizada en diversos contextos. **Conclusión:** Los resultados son relevantes cuanto la aplicabilidad del *Profile* en

Logopedia, con posibilidades de análisis en diferentes contextos dialógicos, un apoyo importante para intervención para una interacción más efectiva con diferentes compañeros involucrados en la exploración y promoción del lenguaje.

Palabras clave: Trastorno del Espectro Autista; Relaciones Madre-Hijo; Lenguaje Infantil; Comunicación No Verbal.

Introduction

Autism spectrum disorder (ASD), according to the DSM V-TR¹ updated in 2022, is characterized by persistent difficulties in communication and social interaction, in various contexts, as well as in social reciprocity and language characteristics, such as non-verbal and verbal behaviors; in addition to the presence of restricted and repetitive patterns of behaviors, interests, and activities.

Delays in the acquisition and development of language are common in children with ASD² and, as their families are the first people to communicate with them, they report difficulties in dealing with their children's unconventional language patterns and concern about their development³.

This study considers an enunciative perspective of language⁴, in which language is constantly changing through interaction with others, and is not understood as something received and static. The child is constituted as a subject of language, understanding the world and being able to act in it. Then, the approach of Discursive Neurolinguistics (DN)⁴ is resumed by authors who address Augmentative and Alternative Communication (AAC) in this perspective, which incorporates the subject, his linguistic activity, his interaction with others, and the possibility of change, which reinforces the concept that the child, in this case with ASD, is a linguistic subject with and through his interlocutors.

Among the proposed therapeutic interventions for the development of communication in children with ASD⁵, AAC is understood as “[...] a clinical-educational approach that aims, temporarily or permanently, to support, complement, supplement/improve or replace the forms of verbal production and interpretation of non-speaking subjects or those with language difficulties”⁶, that is, a communication system that can favor language and contribute to the interaction and communication of these individuals with the world where they live.

When referring to interlocutors who interact with AAC individuals, international authors^{7,8} use the expression “communication partners.” According to these authors, this is a generic and non-exclusive term, and does not imply the use of words such as “reader” or “listener,” which do not identify all people, since not all are readers and/or listeners⁸.

What the mother, as the main communication partner, recognizes or not in her child influences the processes of language and interaction between the mother and child. Understanding and recognizing the perceptions of mothers helps address the communication difficulties in each case, as discussed in the literature⁹, provides proposals of intervention that favor language, and opens up paths for new significations and resignifications of the child as a linguistic and social subject.

To understand the language of studied children from the perspective of their mothers, the Profile—the Pragmatics Profile for People who use AAC—was used, a tool originally developed for use with children up to 10 years old¹⁰ and later adapted for children who use AAC¹¹. The Profile seeks to understand how children communicate, how language is used, with a variety of intentions, how children participate in conversation and speech, according to the main communication partners. According to its authors, the Profile also allows the collection of a variety of information about the child's communication outside the clinical environment, focused on everyday life^{10,11}.

Although the language of children with ASD has been widely studied, there is still a lack of studies, particularly in the national literature, that assess the perceptions of mothers, the main communication partners of children, of how they perceive their children's language, which is the focus of this study. Therefore, this study aims to understand the perception of mothers of children with ASD and restricted speech regarding their language, using the Profile.

Materials and Methods

This exploratory study was approved by the Research Ethics Committee of the University where this study was conducted, under approval No. 47884421.10000.540, and constitutes the initial part of a master's research of one of the authors. Exploratory studies aim to "provide greater familiarity with a problem"¹², in this case, it helps understand the perception of mothers of autistic children with restricted speech, which can be further explored in future studies.

Data were collected remotely via Google Meet and recorded with the authorization of the participants, who were the legal guardians of the study children. All guardians agreed to participate in this study by providing their oral consent electronically after reading the informed consent form. An intentional sample¹³ was selected for its social representativeness for the proposed theme, consisting of three mothers of children diagnosed with ASD and restricted speech, users of Augmentative and/or Alternative Communication (AAC). In exploratory studies, whose objective is to obtain preliminary insights on a given topic, convenience sampling¹² can be used; in this study, three mothers of children with ASD.

The inclusion criteria were: mothers of children diagnosed with ASD by a neurologist, psychiatrist, or multidisciplinary team, aged 5 to 9 years, with restricted speech, using AAC and undergoing speech and language therapy at the time of data collection. The exclusion criteria were: mothers of children with ASD undergoing speech

and language therapy and who had problems with remote interviews.

Data were collected from mothers and children to define the sociodemographic profile of the participants (Charts 1 and 2). The Profile the Pragmatics Profile for People who use AAC¹⁰—translated into and adapted for Brazilian Portuguese by the researcher and revised by her advisor, was applied to the mothers, and the authors were informed by the researchers of its use in this study a free translation into Brazilian Portuguese, since an adapted and validated version was not found. The authors of Profile¹⁰⁻¹¹ identified the need for an approach that explored everyday communication skills in children. Traditional approaches, such as standardized assessment and testing of children in clinical settings, were considered as providing limited understanding of how children communicate in a variety of environments with different communication partners, justifying our interest in assessing its applicability to the mothers of study children, allowing a stronger relation to the study theme.

The Profile has open-ended questions, so participants can contribute more with their knowledge about the child's communication. The interviews were recorded and transcribed for analysis. The protocol is divided into four thematic axes: (i) context and motivation; (ii) reasons to communicate and reactions to communication; and (iii) contextual variation; and (iv) participation in conversation. Each thematic axis has subitems.

Chart 1 shows the profile of mothers regarding age, marital status, number of children, education, and profession.

Chart 1. Sociodemographic profile of mothers

	Age	Marital status	Number of children	Education	Profession
M1	45	Married	1	CHE	Pedagogue
M2	38	Married	1	CHE	Psychopedagogue
M3	42	Married	2	CHE.	Architect

Caption: CHE: Completed Higher Education.

Chart 2 shows the profile of children regarding language characteristics, age at data collection, sex, date of birth, and time of speech-language and multidisciplinary team intervention.

Chart 2. Characterization of children in terms of language, age, sex, and speech and language intervention

	Language characteristics	Age at data collection	Sex	Time of speech and language intervention	Time of intervention of the multidisciplinary team and professionals
C1	Non-verbal; use of AAC	5 years	F	4 years	2 years (Psychologist, Occupational Therapist, and Psychopedagogue)
C2	Speaks words and short phrases; use of AAC	9 years	M	6 years	3 years (Psychologist and Occupational Therapist)
C3	Isolated words; use of AAC	9 years	M	4 years and 6 months	4 years (Psychologist and Occupational Therapist)

Caption: F: female; M: male; AAC: Augmentative and Alternative Communication.

Child C1 lives with the parents and an aunt, goes to regular school and has used Augmentative and Alternative Communication (AAC) systems for two years.

Child C2 lives with their parents and was not attending school at data collection. This child had already used AAC at the age of 2, but stopped using it because the mother thought there was no progress in language. At the time of data collection, the child had restarted using it one year ago.

Child C3 attends regular school and lives with the parents and younger sister. This child started using AAC 3 years before and produces some word approximations.

All children were diagnosed with ASD, but did not have a description of the level of support, according to DSM V-TR¹.

Data collected in the Profile instrument about the perception of mothers of how the child communicates were transcribed. For analysis, the Profile items were arranged in Chart 3 (column 1), followed by examples of answers available in the Profile guide (column 2). Column 3 shows the answers considered by the researcher in charge, most of which according to the Profile description. Other answers were also modified, such as: “Points with the eyes” and “Eye contact,” and were considered as separate items. The items “vocalization” and “word/approximate word/phrases” were also considered separate answers. In the “Other” category, the following were included in this study: “Physically takes the other to something/someone/a place,” “Use of objects to communicate,” and “Stereotypes used with communicative intent.”

Chart 3. Description of the answer considered by the researcher, based on the profile instrument

Items of the Profile*	Examples of the answers provided to the Profile	Answers considered by the researcher
Uses phrase through AAC		Uses two or more symbols to express oneself
Uses single word through AAC		Uses a symbol to express oneself
Gesture	Gestures interpreted as meaning "more," "stop," "point," "no," "push," and "hit"	Gesture calling the other or indicating something (points, calls attention or the person)
Points with the eye/eye contact	Considered a separate item. Looks at the "object" of interest / looks at the "object" and then looks back at the person / looks at the person	Looks at the object / place to communicate
		Looks at the other to communicate / eye contact
Body movement	Moves the body (to reach out the other)	Body movements to express feelings (throws oneself, moves away, runs, and jumps, claps, etc.)
Vocalization, sound/word or approximate word	Makes begging noises, a sound associated with the item	Vocalization / sound
		Word / approximate word / phrases
Facial expression		Child demonstrates feelings; for ex.: joy, sadness, and others
Signs	Makes signs of "who?" using a questioning/confused facial expression and looks at you or the person if present	Not used
Other		Other
		Physically takes the other to something / someone / a place
		Uses objects to communicate
		Stereotypes used with communicative intent

*Translated and adapted into Brazilian Portuguese by the researchers, in a free version for use in this study.

Results

Table 1 shows the findings of the thematic axes: (i) establishing context and motivation; (ii) reasons to communicate and reactions to communication;

and (iv) participation in conversation. Next, the results for the qualitative analysis of the statements of mothers are presented, which illustrate the Profile findings in the different categories.

Table 1. Results of axes 1, 2, and 4 of the profile*

Axes	Uses phrases in AAC			Uses words in AAC			Indicative gestures			Gaze			Eye contact			Body movement		
	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
1) Context and motivation																		
Shows likes																		
Shows dislikes																		
2) Reasons to communicate and reactions to communication																		
a. Gaining motivation																		
Interest in interaction																		
Gaining attention to prepare for an interaction																		
b. Drawing attention																		
... to self																		
... to an event/action																		
... to an object																		
... to other person																		
c. Requesting																		
... a person																		
... recurrence																		
... cessation																		
... assistance																		
... an object																		
Responding to a direct request for action																		
... an event/action																		
... information																		
Responding to a direct request for information																		
... confirmation of information																		
Understanding indirect requests																		
d. Rejecting																		
... a person																		
... an object																		
... an event/action/task																		
... assistance																		
Protesting																		
Responding to "no"																		
Negotiating																		
e. Naming																		
... an object																		
... an action/event																		
f. Commenting																		
... on the existence of people/objects/events																		
... on the non-existence of people/objects/events																		
... on an attribute in the immediate context																		
g. Giving information																		
... about self																		
... about other people																		
... to direct other people/actions																		
h. Asking questions																		
... using "who?"																		
... using "what?"																		
... using "where?"																		
... using "when?"																		
... using "why?"																		
... using "how?"																		
3) Participation in conversation																		
11. Strategies																		
Signaling comm. breakdown																		
Comm. failure																		
Requesting clarification																		
Maintaining an interaction/conversation over more than 2 turns																		
Giving feedback to other when listening																		
Giving feedback to other when reformulating a message																		
Changing the topic																		
Joining a conversation																		
Terminating an interaction																		
a. Using social etiquette																		
Using greeting and partings																		
Complying with social conventions																		
Telling jokes																		
Total	2	1	5	7	2	6	14	0	11	4	1	2	4	3	8	25	17	20

Caption: M1: Mother1; M2: Mother2; M3: Mother3; Green: reported by the mother; Red: not reported by the mother. *Translated and adapted into Brazilian Portuguese by the researchers, in a free version for use in this study.

Table 1. Results of axes 1, 2, and 4 of the profile* (cont.)

Axes	Vocalization			Produces words/ approximate words*			Facial expression			Other								
	M1	M2	M3	M1	M2	M3	M1	M2	M3	Takes the other			Uses objects			Stereotypes		
Participants	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
1) Context and motivation																		
Shows likes																		
Shows dislikes					*													
2) Reasons to communicate and reactions to communication																		
a. Gaining motivation																		
Interest in interaction					*													
Gaining attention to prepare for an interaction					*													
b. Drawing attention																		
... to self																		
... to an event/action																		
... to an object																		
... to other person																		
c. Requesting																		
... a person																		
... recurrence																		
... cessation																		
... assistance																		
... an object																		
Responding to a direct request for action																		
... an event/action																		
... information																		
Responding to a direct request for information																		
... confirmation of information																		
Understanding indirect requests																		
d. Rejecting																		
... a person																		
... an object					*													
... an event/action/task					*													
... assistance																		
Protesting					*													
Responding to "no"																		
Negotiating																		
e. Naming																		
... an object																		
... an action/event																		
f. Commenting																		
... on the existence of people/ objects/events																		
... on the non-existence of people/ objects/events																		
... on an attribute in the immediate context																		
g. Giving information																		
... about self																		
... about other people																		
... to direct other people/actions																		
h. Asking questions																		
... using "who?"																		
... using "what?"																		
... using "where?"																		
... using "when?"																		
... using "why?"																		
... using "how?"																		
3) Participation in conversation																		
11. Strategies																		
Signaling comm. breakdown																		
Comm. failure																		
Requesting clarification																		
Maintaining an interaction/ conversation over more than 2 turns																		
Giving feedback to other when listening																		
Giving feedback to other when reformulating a message																		
Changing the topic																		
Joining a conversation																		
Terminating an interaction																		
a. Using social etiquette																		
Using greeting and partings					*													
Complying with social conventions																		
Telling jokes																		
Total	1	3	0	0	15	9	10	6	14	7	5	3	4	2	7	5	0	1

Caption: M1: Mother1; M2: Mother2; M3: Mother3; Green: reported by the mother; Red: not reported by the mother. *Translated and adapted into Brazilian Portuguese by the researchers, in a free version for use in this study.

In the context and motivation axis, mothers report that children show what they like and dislike in different ways, using AAC, body/movement, facial expression, gaze, use of objects and words and/or approximate words, that is, all children present different responses in the mothers' perspective.

In the axis of reasons to communicate and reactions to communication, and in the axis of participation in conversation, children use movement/body more often, as reported by mothers, followed by the use of facial expression, as described in Table 1. Below is an excerpt from the speech of participant M1, which illustrates the use of body movement and shouting for the child to indicate that he or she does not want something:

"... the games we get to play with her, she doesn't want to play... she leaves the table, if she's sitting down she wants to get out... she starts to throw herself back, and shouts..." (Participant M1)

"Eye contact" was indicated by all mothers as a form of communication of their children. Mothers M1 and M2 reported that they also use the "request to look" as a way to get attention and start or maintain interaction with the child. Here are some examples from participants M1 and M2:

"E., guess where we're going?"; then she LOOKS, but she doesn't stop looking (laughs), then I say: 'Don't say it yet! Let her keep looking' (laughs). Just to increase eye contact... because she keeps looking at us like this, anxiously." (Participant M1)

"[name of father] does this a lot, he says: 'E. look at me, in my eyes!' Then he keeps looking, you know? He looks!" (Participant M2).

Table 2 shows the thematic axis (iii) of contextual variation. Most mothers reported that their children communicate more with people in their nuclear family (father, mother, and grandparents), and in the environments where these people are (the child's own home and/or the grandparents' home). Mothers P1 and P3 reported that their children do not have preferred times to talk, but P2 noticed that her child talks more at night and explains that it is probably because all family members are at home at night. The children's favorite topics are varied; according to P2, C1 starts the interaction asking for favorite objects, such as household items that make noise, for example: microwave oven, video game, and washing machine, and she asks to go for a ride and to be tickled.

Table 2. Results of axis 3—contextual variation—of the profile

Participants	Favorite people of children	Favorite places to talk	Favorite time of the day	Favorite topics
M1	Nuclear family	Family home and grandparents' home	None	Go for a ride, ask to be tickled, play instruments with noise
M2	Nuclear family	Family home	Night	Food
M3	Nuclear family	Family home and grandparents' home	None	Music and animals

Caption: M1: Mother1; M2: Mother2; M3: Mother3.

Notably, the use of echolalia was not mentioned by any of the mothers. Participant M2 reported that her child repeats the word "more," but not spontaneously, and she considers it as an enunciative type of speech, and not as echolalia produced by the child.

The use of Augmentative and/or Alternative Communication (AAC) was mentioned by all mothers in the interviews. Although it is not the form of communication most used by the children, the participants indicated an improvement in child

communication after using AAC. For example, participant M3 reported that her child pulled her by the body before AAC, and after using AAC, he started to ask for and make comments, that is, AAC favored language and contributed to situations of linguistic interaction, as follows, in her speech:

"He usually points, if he is not in the same environment, he asks to follow him... if it is not possible to show him by PECS, for example, the sound of "éé" ... before he would pull by the hand; when he

started to improve his use of PECS then he started to use 'I see' or 'I hear' or 'I want.' And now, he ends up using PECS!..." (Participant M3).

The mothers reported improvements in communication, with two participants (M1 and M3) reporting that they do not provide the AAC materials in the car or, when they go to certain environments, they take fewer communication sheets, which they assume the child will use, as seen in the excerpts of participants M3 and M1, respectively: "... it usually happens in the car, he can't get the PECS in the car." (Participant M3)

"For example, at my mother's house, I only get things that my child can ask there. I take fewer sheets of the folders." (Participant M1)

Participant M1 reported that her daughter uses the AAC board outside the home more often, because it is easier for her to say what she wants inside the home. According to this mother:

"... other times she points, other times she uses the card more often in environments that are not the home. ... but I think it's easier for her to communicate at home, so she uses it more often in other environments." (Participant M1)

The three mothers reported that their children communicate to request or reject objects, people, places, help, to change the subject and change the topic. The situations not reported by the mothers were: naming, commenting, giving information, answering to questions and requests, asking questions, using communication strategies, and using social etiquette.

Although participant M2 reported that her son expresses himself using words/approximate words and phrases, the results in Table 1 show this mother refers fewer interaction situations with child C2.

According to the mothers, it is difficult for them to understand what their children want to say and how they deal with saying "no" to them, as illustrated in the following example:

"... I sang many parts of songs and they weren't what she wanted... I said: 'Honey, mommy doesn't

know it!' It stresses me out because she keeps insisting. She keeps complaining. She never gets tired! It makes her even sadder because if she gave up... then I could distract her with something else, right? But then I tell her: 'Honey, let's play with something else, let's do something different, because mommy doesn't understand it.'" (Participant M1)

When the interviewer asked how the child reacts to "no," one of the mothers reported:

"He stamps his foot on the floor, pinches himself, and pulls his hair. That's how he responds. For him, no is automatic... he starts pinching himself, stamps his foot hard on the floor, pulling his hair: He runs away, cries, screams..." (Participant M2)

Regarding other communication partners, all mothers reported that their children communicate more with family members, such as fathers, mothers, siblings, grandparents, and closest uncles and aunts. Also, mothers M1 and M3 said that their children have specific people besides the mothers themselves with whom they communicate more, such as the family helper in the case of C1 and a friend from school for C3, as illustrated in the following excerpt from the mother's speech:

"... at school he has a classmate he gets along very well. So, he ends up communicating more with her than with his other classmates. Regarding the family, he communicates with everyone. But out of the family, it's impressive how this classmate can communicate with him..." (Participant M3)

Discussion

Among the characteristics of the respondents, all had completed higher education, a finding that is consistent with the literature, with the Southwest region of Brazil standing out in terms of education when compared to other regions of the country¹⁴.

Regarding the enunciative acts used by the children, the mothers indicated that body/movement is the most used. In this case, body/movement is understood as a gesture with communicative intent; as discussed in the literature: "gesture can be defined as a visible action when it has an enunciative character"¹⁵ or, as discussed by other authors¹⁶, gesture can be defined as an alternative form of communication for the autistic child, that is, it represents the multimodality for the child to express himself/herself.

1 The Picture Exchange Communication System (PECS) is an augmentative and alternative communication (AAC) system developed in 1985 and produced by Pyramid Educational Consultants, Inc. The PECS was developed at the Delaware Autism Program by Andy Bondy, PhD, and Lori Frost, MS, CCC-SLP24.



Although gaze is highlighted in the literature as one of the biggest challenges for the child with ASD in the interaction with others^{16,17}, in our study it was the second form of interaction reported by the mothers. One of the mothers highlighted that she draws the attention of her child through the gaze and her own speech.

In our study, the use of echolalia and stereotypies in the children was not reported by the mothers, a finding that differs from those reported in the studies, among the most common characteristics of children with ASD¹.

The use of AAC was not the most mentioned or used system but the mothers reported improvement in communication after implementing AAC systems in their children, which is confirmed by current national and international studies^{18,19}. The access to AAC, provided to the children in this study, was limited in some situations, as mentioned above. Therefore, it is important to provide instruments, guidance, and training to the family, the main communication partners^{20,21}, and engaging the family in the process of AAC introduction, as reported in a study that used acting and AAC with autistic children, highlighting the importance of the family in the construction of AAC²¹.

Based on the Profile axes in this study, two mothers of non-verbal children recognized more situations of linguistic interaction than the mother of the child with speech limited to isolated words and two-word statements. These results confirm that, regardless of speech, it is important for mothers to attribute a meaning to the multiple linguistic manifestations of children with ASD, thus becoming more effective communication partners²⁰⁻²².

When the mother attributes a meaning to the linguistic manifestations of her child, she gives him space in the speech, recognizing him as a linguistic and social subject in this dialogical process, that is, the child has the opportunity to express in different linguistic situations. In addition, it is important to consider the issue of subjectivity of the answers from the mothers, which involves, among other aspects, how AAC is conceived and the speech expectations from these children, not only by the mothers, but also by the professional, as discussed in another study²³, whose authors emphasize the need for a language theory that focuses on intersubjectivity and dialogism.

In the third axis, the mothers reported greater communication with family members than with

other communication partners, which reinforces the importance of expanding guidance and training to include other communication partners in other environments in which the child is inserted. A study indicates that using training services in other contexts also involves the needs and desires of the child over time²¹.

The results indicate that the use of the Profile in this study contributed to the collection of perceptions of mothers about their children's language, as it contains open-ended questions about the child's various linguistic contexts, means, and interactions, supporting the development of the child's language in a different way, outside the clinical context and closer to their reality, as described in the instrument guide¹⁰. Further studies are required to deeply explore the topic.

Conclusions

Our findings show that the application of the Profile allowed the collection of interesting information about the children's language in the perspective of their mothers, in the three thematic axes of the Profile, as it contains open-ended questions that allowed mothers to tell about their children's language. In the context and motivation axis, mothers report that children show what they like and dislike in different ways, using AAC, body/movement, facial expression, gaze, use of objects and words and/or approximate words, that is, all children have different responses, in the perspective of mothers.

In the second axis of reasons to communicate, reactions to communication and participation in conversation, the responses of mothers are varied in relation to the children's linguistic interaction situations, showing greater use of their children's body movement. In the contextual variation category, mothers report more interaction of their children with family members when compared to other communication partners in other daily contexts of the child.

In the third axis of contextual variation and participation in conversation, the respondents report more interaction of their children with family members.

Among the main results, restricted speech did not constitute a limiting factor for linguistic interaction with their children, according to the mothers interviewed. They attribute a meaning to



their linguistic manifestations, even if their speech is restricted or there is little use of AAC. When mothers attribute a meaning to the linguistic manifestations of their children, she gives them space in the speech, recognizing them as a linguistic and social subject in this dialogical process, that is, she offers opportunities for the child to express in different linguistic situations.

The findings obtained with the Profile provide useful data from the perspective of the mothers for the analysis of different dialogical contexts of the children, despite the issue of the subjectivity of the responses of the mothers, which involves, among other aspects, how AAC is conceived and the speech expectations from their children, which must be added to the therapist's view.

The results met the objectives of this exploratory study, which allowed data collection to understand the perception of mothers regarding their children's language, providing interesting support for further studies. Although the findings cannot be generalized due to sample limitations, the results demonstrate the applicability of the Profile in Brazilian experiences.

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