

Inclusion of students with communication disorders: an integrative literature review of scientific productions from the last 10 years

Inclusão de estudantes com distúrbios de comunicação: revisão integrativa de literatura das produções científicas dos últimos 10 anos

Inclusión de estudiantes con trastornos de la comunicación: una revisión integradora de la literatura de las producciones científicas de los últimos 10 años

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Abstract

Introduction: A disturbing silence echoes in legislation, censuses, and research on students with communication disorders in Brazil. While there is no official information related to these Brazilians, there is a prevalence of 7.7% of school-age subjects with some alteration in phonation, language, and swallowing in the United States. **Objective:** We seek to answer how Brazilian academic productions in the last 10 years have addressed the inclusion of students with communication disorders, and what are the main barriers and strategies identified to promote a truly inclusive education for this audience. **Method:** This is an integrative analysis of dissertations and theses from 2014 to 2024, available in the Biblioteca Digital de Teses e Dissertações, based on seven main points: 1) persistence of attitudinal and communication barriers; 2) continuing education of professionals; 3) need to implement assistive technologies; 4) relevance of family-school dialogue; 5) questioning the concepts of normality and

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Authors' contributions:

CFSS: study conception, data collection, article design dados,
LKHY: methodology, critical revision, orientation.

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pathology; 6) impact of communication difficulties on academic performance; 7) importance of welcoming educational environments. **Results:** Communication and attitudinal barriers persist at different levels of education and there is a need for continued training of educators, especially on the potential of assistive technologies. **Conclusion:** Effective inclusion requires transformation in pedagogical practices and in social conceptions about normality and pathologization of communication disorders, demanding collaborative practices between school, family and specialized professionals.

Keywords: School Inclusion; Special Education; Speech Disorders; Specific Language Impairment; Communication Barriers; School Teachers.

Resumo

Introdução: Um silêncio perturbador ecoa nas legislações, censos e pesquisas sobre estudantes com distúrbios de comunicação no Brasil. Enquanto inexistem informações oficiais relacionadas a estes brasileiros, há prevalência de 7,7% dos sujeitos em idade escolar com alguma alteração na fonação, na linguagem e na deglutição em território estadunidense. **Objetivo:** Buscamos responder como as produções acadêmicas brasileiras dos últimos 10 anos têm abordado a inclusão de estudantes com distúrbios da comunicação, e quais são as principais barreiras e estratégias identificadas para promover uma educação verdadeiramente inclusiva para esse público. **Método:** Trata-se de uma análise integrativa de dissertações e teses de 2014 a 2024, disponíveis na Biblioteca Digital de Teses e Dissertações, a partir de sete pontos principais: 1) persistência de barreiras atitudinais e comunicacionais; 2) formação continuada de profissionais; 3) necessidade de implementação de tecnologias assistivas; 4) relevância do diálogo família-escola; 5) questionamento dos conceitos de normalidade e patologia; 6) impacto das dificuldades comunicacionais no desempenho acadêmico; 7) importância de ambientes educacionais acolhedores. **Resultados:** Persistem barreiras comunicacionais e atitudinais em diferentes níveis de ensino e há a necessidade de formação continuada de educadores, sobretudo sobre o potencial das tecnologias assistivas. **Conclusão:** A inclusão efetiva requer transformação nas práticas pedagógicas e nas concepções sociais sobre normalidade e patologização dos distúrbios de comunicação, demandando práticas colaborativas entre escola, família e profissionais especializados.

Palavras-chave: Inclusão Escolar; Educação Especial; Distúrbios da Fala; Transtorno Específico de Linguagem; Barreiras de Comunicação; Professores Escolares.

Resumen

Introducción: Un silencio inquietante resuena en la legislación, en los censos y en las investigaciones sobre estudiantes con trastornos de comunicación en Brasil. Si bien no existe información oficial relacionada con estos brasileños, existe una prevalencia de 7,7% de sujetos en edad escolar con alguna alteración en la fonación, lenguaje y deglución en territorio estadounidense. **Objetivo:** Buscamos responder cómo las producciones académicas brasileñas de los últimos 10 años han abordado la inclusión de estudiantes con trastornos de comunicación, y cuáles son las principales barreras y estrategias identificadas para promover una educación verdaderamente inclusiva para este público. **Método:** Se trata de un análisis integrador de las disertaciones y tesis de 2014 a 2024, disponibles en la Biblioteca Digital de Teses e Dissertações, basado en siete puntos principales: 1) persistencia de barreras actitudinales y de comunicación; 2) formación continua de profesionales; 3) necesidad de implementar tecnologías de asistencia; 4) relevancia del diálogo familia-escuela; 5) cuestionar los conceptos de normalidad y patologia; 6) impacto de las dificultades de comunicación en el rendimiento académico; 7) Importancia de los entornos educativos acogedores. **Resultados:** Las barreras de comunicación y actitudinales persisten en diferentes niveles de educación y es necesario capacitar continuamente a los educadores, especialmente sobre el potencial de las tecnologías de asistencia. **Conclusión:** La inclusión efectiva requiere transformación en las prácticas pedagógicas y en las concepciones sociales sobre la normalidad y patologización de los trastornos de la comunicación, demandando prácticas colaborativas entre escuela, familia y profesionales especializados.

Palabras clave: Inclusión Escolar; Educación Especial; Trastornos del habla; Trastorno específico del lenguaje; Barreras de comunicación; Maestros de escuela.

Introduction

Although it appears as an ethical and legal imperative in the current Brazilian educational scenario, school inclusion has been shown to be a still incipient field of investigation when it comes to students with communication disorders. A practical example is a study published by CE-FAC¹ (Current Evidence on Feeding, Audiology, and Communication), which sheds light on a gap in the national legislative framework: of the 21 norms analyzed concerning inclusion, 13 address disabilities in a generalist way, while the remaining 8 focus specifically on autism spectrum disorder. This asymmetric distribution of public policies raises questions about the institutional invisibility of other conditions that affect communication and, consequently, learning.

For the authors,

individuals diagnosed with Dysphonia, Fluency Disorders, Specific Language Disorder, Phonological Disorder, Apraxia, Auditory Processing Disorder, Cleft lip and palate, among other disorders, that is, individuals who also have communication disorders, are totally legally helpless¹ (our translation, p.9).

Nevertheless the existence of a legal framework that advocates inclusive education in Brazil, such as the Law of Guidelines and Bases of National Education², the National Policy on Special Education in the Perspective of Inclusive Education³ and the Brazilian Law for the Inclusion of Persons with Disabilities⁴, the experience lived by students with communication disorders raises the debate about the effectiveness of these policies in the daily practice of educational institutions, since the mere presence of legislation does not guarantee, by itself, the implementation of truly inclusive practices⁵⁻⁶.

Although Brazilian legislation guarantees the right to inclusive education, the reality faced by students with communication disorders raises questions about the effectiveness of these policies. Are schools really prepared to welcome and meet the specific needs of these students? How do communication barriers impact the learning process and the socialization of subjects in the school space?

These students face several challenges that directly impact the learning and socialization process, such as accessibility difficulties⁵⁻⁷⁻⁸. Accessibility difficulties can be defined as physical,

architectural, communicative, locomotive barriers and, in some situations, the so-called attitudinal barriers, causing limitations to the individual and hindering their full participation and the development of the subjects⁹⁻¹⁰.

Physical and architectural barriers refer to the palpable obstacles that prevent or hinder people's accessibility. In the Brazilian Law for the Inclusion of Persons with Disabilities, Law No. 13,146/2015, in its article 53, "accessibility is a right that guarantees people with disabilities or reduced mobility to live independently and exercise their rights of citizenship and social participation"¹⁴ (our translation). Communication barriers are related to the difficulties of understanding and expression that subjects may face. Students who have alterations in speech, oral and written language, voice, and fluency may have impaired their interaction with teachers and classmates, and the lack of knowledge and strategies on the part of educators to deal with these specificities may further aggravate these barriers¹¹⁻¹². In relation to attitudinal barriers, their overcoming is related to the attitude of the person who drives the removal of obstacles in relation to people with disabilities. These barriers are the most difficult to eliminate, as they involve the "perception of the other without prejudice, stigma, stereotypes and discrimination"¹³ (our translation, p.21). In the school context, these barriers can manifest themselves in the form of low expectations regarding the potential of these students, in the lack of preparation of teachers to deal with their specific needs, and in social exclusion by colleagues¹⁴. Authors⁹⁻¹⁰⁻¹⁵ also conceptualize pedagogical barriers, which refer to educational practices that do not consider the singularities and potentialities of each student, and that "without the effective participation of the support team, teachers work without further information about the difficulties presented, so that the naturalization of existing conditions ends up constituting a possible barrier to change and as a defense"⁹ (our translation, p.704).

The present study aimed to carry out a qualitative research of the integrative literature review of theses and dissertations published by Brazilian master's and doctoral students in the last 10 years, seeking to relate their studies to the contribution to the development of communication, self-esteem and sense of belonging of students with human communication disorders in the school context. We opted for this type of literature review, the

integrative review, because it plays a fundamental role in the process of updating the researcher in his area of concentration, by providing the scholar with the opportunity to engage in the construction of new knowledge, particularly that dedicated to the field of Education, not only revisiting the references that are basic to it, but also positioning itself as a potential source of inspiration for future investigations¹⁶. In this way, the integrative review contributes to the deepening of individual knowledge and the collective advancement of the area of study, establishing a continuous cycle of production and dissemination of knowledge.

As specific objectives, this work proposes to:

a) Identify the types of barriers faced by students with disorders and difficulties in communication in school units, based on the analysis of the selected academic productions; b) To analyze the contributions and main findings of Brazilian researchers on the subject, highlighting the strategies and interventions proposed to overcome the identified barriers; c) To propose a discussion about the productions found.

The justification for conducting this study lies in the scarcity of research and census data available that connect the themes of inclusive education and communication disorders in Brazil. Among the few that exist, the research on the prevalence of communication disorders among public elementary school students in Vila Velha/ES stands out, showing that 30.4% of the subjects surveyed have some alteration in communication¹⁷ and the literature review¹⁸ that points to the high prevalence of Developmental Language Disorders (LDD), affecting approximately 7% of the population.

Specialized associations¹⁹ estimate that about 1% of the Brazilian population lives with stuttering. In comparison, American studies²⁰ indicate that 7.7% of school-age individuals had some alteration in voice, speech, language or swallowing. Thus, “it is believed that in the same way that significant percentages are found in a developed country such as the USA, the same should occur in Brazil, perhaps even with a higher rate”¹ (our translation, p.2).

In view of this scenario of lack of public policies and specific norms for this group of subjects, which characterizes the absence of legal support¹ and the continuity of the numerous barriers that hinder full participation and learning rights, the present study seeks to answer the following question: How have Brazilian academic productions in

the last 10 years addressed the school inclusion of students with communication disorders, And what are the main barriers and strategies identified to promote a truly inclusive education for this audience? This guiding question allows us to explore not only the current state of research in this field, but also to identify gaps and opportunities for future investigations and practical interventions.

Material and method

This integrative review used the advanced search function of the Brazilian Digital Library of Theses and Dissertations (BDTD) as the primary source of data. BDTD was selected for its comprehensiveness, reliability, and academic recognition, with access to high-level research developed in Brazilian institutions²¹. The time frame established was from 2014 to 2024, aiming to cover recent studies on the school inclusion of students with communication disorders. The search strategy was structured in three main blocks, combined by Boolean operators.

The first block focused on terms related to communication disorders, including: “distúrbios da comunicação” (communication disorders), “distúrbios da fala” (speech disorders), “transtorno de linguagem” (language disorder), “transtorno motor da fala” (motor speech disorder), “transtorno fonológico” (phonological disorder), “motricidade orofacial” (orofacial motricity), “gagueira” (stuttering), “taquilalia” (tachylalia), “disfemia” (dysphemia), “afasia” (aphasia) and “taquifemia” (cluttering).

The second block covered terms associated with the educational context: “escol*” (to capture variations such as school, school), “educação inclusiva” (inclusive education), “inclusão escolar” (school inclusion), “alun?” (to include the word in the feminine and masculine gender), “educação especial” (special education) and “atendimento educacional especializado (specialized educational service)”.

The third block, preceded by the “NO” operator, aimed to exclude studies that were not pertinent to the scope of the research: “assessment”, “adult?” (to exclude adult-focused studies) and “reabilitação” (rehabilitation).

The blocks were combined as follows: (Block 1 and Block 2) NOT Block 3. This search strategy was developed to maximize the retrieval of studies



relevant to our scope, focusing on the intersection between communication disorders and the school environment, while excluding research not directly related to the purpose of the study.

We used as inclusion criteria theses and dissertations defended in Brazilian strictu-sensu graduate programs between 2014 and 2024 that mentioned in their title, keywords, abstract and final considerations a close relationship with the school inclusion of this public and the barriers faced in the educational context. As exclusion

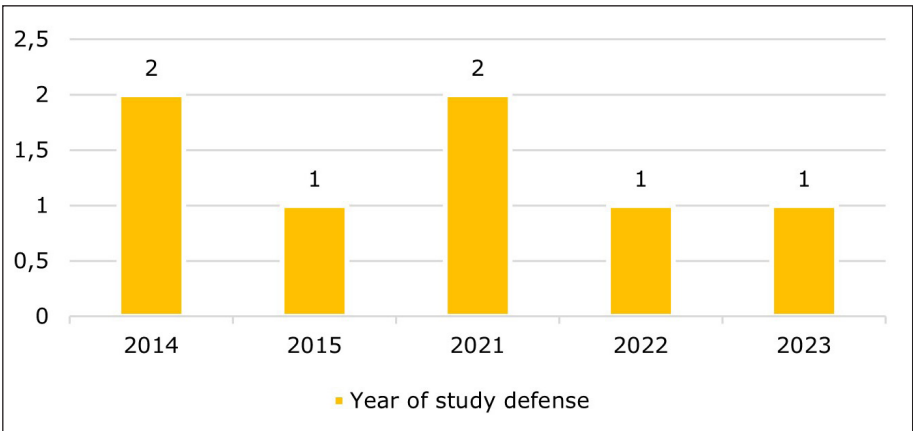
criteria, studies not directly related to school inclusion and communication barriers in the student environment, in addition to excluding studies prior to 2014 and produced in foreign programs. The initial search resulted in 122 publications. After applying the inclusion and exclusion criteria, and floating reading of the title, keywords, abstract and final considerations, seven studies were selected for analysis that are systematized in Chart 1 and Graphs 1, 2 and 3.

Table 1. Theses and dissertations analyzed

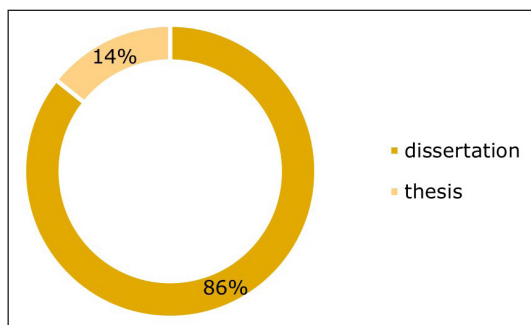
Author, year	Objective of the study
Fernandes, 2014 (dissertation)	To identify the social repercussions in individuals with communication disorders associated with cleft lip and palate with and without hearing loss.
Togashi, 2014 (dissertation)	To analyze the communicative interactions of a student with ASD in a regular classroom environment, verifying the effects of the use of an extended alternative communication system in a school context
Santos, 2015 (dissertation)	To present a critical reflection, in the light of enunciative-discursive neurolinguistics, about the concept of fluency in normality and pathology
Masuyama, 2021 (thesis)	Analyze and understand the professional knowledge (re)signified by experience that composes and underpins the training of the speech-language pathologist to work in education and in the school
Kings, 2021 (dissertation)	To identify how interactions occurred between a student with nonverbal ASD and their reference teachers in the school year and to verify whether the offer of their AAC system, with direct instructions to the regent and support teachers, could contribute to the advancement of participation in the school context
Piber, 2022 (dissertation)	To analyze the perception of parents/guardians of children with hearing impairment and their teachers in relation to the impact of disability on family, social and school relationships in the city of Santa Maria – RS
Santos, 2023 (dissertation)	To investigate the social communication skills of university students with autism spectrum disorder (ASD) and their relationship with academic performance

Source: the authors

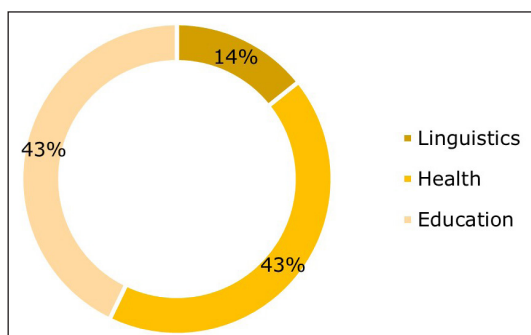
Graph 1. Year and volume of publications analyzed



Source: the authors.

Graph 2. Percentage concentration by type of publication

Source: the authors.

Graph 3. Concentration of publications by area of the graduate program

Source: the authors.

The analysis of the seven selected studies was conducted using a systematic approach. First, a full reading of each study was carried out, followed by a thematic categorization of the main findings. Emerging categories included: types of barriers identified, inclusion strategies proposed, training of professionals, and impacts on academic performance. Then, a comparative analysis was carried out, seeking to identify convergences, divergences and gaps between the studies.

Results

Communication barriers, which refer to the lack of adequate resources and strategies for communication¹⁰⁻¹¹, can be challenging for students with speech and language disorders, while these students may have difficulties expressing themselves orally, understanding teachers' instructions or interacting with classmates, which can generate feelings of

frustration, isolation and low self-esteem. Attitudinal barriers, on the other hand, which involve prejudice, stereotypes and discrimination¹⁰, can be even more pernicious for the inclusion of students with communication disorders, as the stigma associated with conditions that are outside the fluency pattern such as stuttering, aphasia or hearing impairment can lead to attitudes of rejection, bullying¹⁴ and exclusion by classmates and even teachers. Based on the findings of this study, we chose, in this first part, to make a chronological presentation in order to later interweave the studies, pointing out their convergences, divergences and gaps.

The investigation on the social implications experienced by individuals with cleft lip and palate, with and without associated hearing loss²², carried out at the Hospital for Rehabilitation of Craniofacial Anomalies (HRAC) of the University of São Paulo (USP), in Bauru, SP, sheds light on the construction of inclusive pedagogical practices and the promotion of the quality of life of this population. The author, based on a quantitative-qualitative methodology and a census study with 52 participants, divided into two groups (with and without hearing loss), sought to trace the socioeconomic and cultural profile of the subjects, analyze their family, school and social relationships, and investigate the use of community resources to support the rehabilitation process. The dissertation is structured in four thematic axes. Of greater linearity to this study, we focus on school insertion, the central theme of the third axis of its analysis. The results of this axis indicate that all participants attend the educational system. The author identifies reports of difficulties in social interaction, school performance and shame of one's own speech, voice and aesthetics, which reinforces the need to build a truly inclusive school environment that welcomes diversity and promotes the integral development of all students⁵⁻⁹⁻¹⁰⁻²².

The study on the effects of Alternative and Expanded Communication (AAC) on the inclusion process of a student with Autism Spectrum Disorder (ASD) and communication disorders⁷, carried out in a municipal school in Rio de Janeiro, unfolds into two interconnected studies on the use of the PECS-Adapted system (Picture Exchange Communication System) as a tool to promote student communication and participation in different school contexts. The dissertation¹⁸ presents contributions to the construction of inclusive peda-

gological practices for students with communication disorders. It demonstrates the feasibility of using PECS-Adapted as a tool to promote communication and participation of students with ASD. The author highlights, corroborated in later research²³⁻²⁵, the need for continuing education for the professionals involved and the need to establish a collaborative dynamic between the regent teacher and the support professional.

Although fluency is a recurrent theme in the existing literature on Stuttering, Aphasia, and Alzheimer's Dementia, its definition often remains vague and imprecise, which makes it difficult to delimit between normal and pathological²⁶. Weaving a historical-critical overview of the construction of the concept of fluency of these speech and language pathologies, the author highlights the emotional, contextual and interactional aspects that influence fluency, arguing that disfluencies can exert cognitive, discursive and pragmatic functions in verbal interaction. Her dissertation is directed towards contributing to the understanding of fluency, both in normality and in pathology and her findings demonstrate the need to break with the dichotomous and simplified view of fluency, proposing a look beyond that considers the complexity of language, the uniqueness of the subject and the dynamics of verbal interaction. The author argues that fluency, far from being a stagnant and measurable concept, is a phenomenon that manifests itself in a unique way in each subject, and that it must be analyzed in its specific context.

Presenting an analysis of the professional knowledge that makes up the training of the speech-language pathologist to work in the educational and school sphere, the research developed in the Graduate Program in Education of the São Paulo State University (Unesp)²⁷, seeks to break with the hegemonic biologizing and naturalizing view that still permeates the practice of speech-language pathology, proposing an approach that values experiential knowledge and the uniqueness of professional performance in the context student. He argues that, although Speech-Language Pathology and Audiology emerged from educational demands, its trajectory was marked by a distancing from the school context, with an emphasis on rehabilitation practices and treatment of communication disorders. The author defends the collaborative work of the speech therapist with the school team, the participation in the elaboration of educational public

policies and the deconstruction of the pathologizing view that still permeates the understanding of "not learning" in school. The author argues that Educational Speech-Language Pathology and Audiology has a fundamental role in promoting inclusive and quality education for all students, regardless of the presence or absence of communication disorders.

The investigation on the effects of Alternative and Extended Communication (AAC) on the interactions between a student with non-verbal Autism Spectrum Disorder (ASD) and their teachers in an elementary school in the municipal network of Ribeirão Preto – SP¹³ focuses on the implementation of the PECS-Adapted system (Picture Exchange Communication System) in the school context. It seeks to analyze the changes in the communicative behaviors of the student and teachers from the introduction of the resource and the application of Incidental Teaching strategies, taking advantage of everyday situations and interests of the child to teach. The author begins his analysis by contextualizing the AAC to expand the communicative possibilities of people with complex communication needs, especially those with ASD and absence of functional speech. The author argues that alternative communication, in addition to the instrumental dimension, requires the construction of a welcoming communicative environment and the presence of competent and proactive interlocutors, with attitudinal accessibility. Her research, designed as a AB (Baseline and Intervention) study, followed a 10-year-old student with ASD and a user of the PECS-Adapted system at the beginning of Phase 4, and his four regular school teachers. Data were collected through daily observations of 21 minutes during regular classes, recording the frequencies of student/teacher communicative interactions and the types of communicative behaviors presented. The results of the Intervention revealed changes in the communicative behaviors of the student and teachers. The student started to use the album more frequently and spontaneously to communicate their desires, needs and feelings, reducing the incidence of inappropriate behaviors. Teachers, in turn, showed greater interest in interacting with the student, using the album to ask questions, give instructions, wait for their answers, encourage their communication and offer feedback.

By examining the perception of parents/guardians and teachers about the impact of hearing impairment on the school and social relationships of



children included in state schools in Santa Maria, Rio Grande do Sul⁸, the research, developed in the Graduate Program in Human Communication Disorders of the Federal University of Santa Maria (UFSM), which uses a quantitative approach. With a descriptive and cross-sectional design, it analyzes the data collected through questionnaires applied to 26 parents/guardians and 16 teachers. The researcher begins her analysis by presenting data from the World Health Organization (WHO) that point to the high prevalence of hearing loss (AD) in the world, estimated at 466 million people, 34 million of whom are children. The author highlights the impact of AD on quality of life, especially on child development, and the need for research that investigates the perception of the actors involved in the process of school inclusion. The research, structured around two sample groups (parents/guardians and teachers), seeks to outline a profile of children with AD, analyze the factors that parents/guardians consider positive and negative in relation to school inclusion, and investigate the perception of teachers about the inclusion process and the construction of social relationships of these children at school. The results of the research show that parents/guardians and teachers share the perception that the school is a space that expands the social interaction of children with AD, although they recognize the difficulties faced by these students in communication. Parents/guardians point out that their children often find it difficult to communicate with their peers, while teachers report difficulties in teaching children with AD, especially due to the lack of Libras interpreters and the low use of assistive technologies such as the Frequency Modulation (FM) System.

Research¹², carried out at the Federal University of Pernambuco (UFPE), investigates the relationship between social communication skills and the academic performance of university students with Autism Spectrum Disorder (ASD). With nine students diagnosed with ASD and enrolled in undergraduate courses, it presents the challenges faced by these students in the context of higher education and the implications of deficits in social communication for their academic trajectory. The research, based on the sociocultural perspective of human development, which emphasizes learning as the result of social interaction and communication between individuals, uses a quali-quantitative methodology to analyze the data collected through individual interviews, online questionnaire and

evaluation of pragmatic communication skills. The author seeks to draw a socioeconomic and educational profile of the participants, describe the measures of academic performance, identify the aspects of pragmatic language and analyze the skills of social communication. The results of this research demonstrate that the participants, mostly women, with an average age of 22 years and low income, faced difficulties in social communication since basic education, including experiences of prejudice and bullying. In higher education, students reported difficulties in following the curriculum, with failures and the possibility of completing the course beyond the expected time. The assessment of social communication skills showed some deficits, such as in relation to understanding and processing information in the classroom, participation in group discussions and activities, interaction with classmates and teachers, and autonomy to deal with academic challenges. The author concludes that there is a relationship between the social communication of university students with ASD and their academic performance, stressing the importance of implementing pedagogical adjustments that ensure the permanence of these students, in line with the principles of inclusive education. From this perspective, according to the author, the inclusion of students with communication and speech disorders, whether in basic or higher education, requires overcoming a homogenizing view of communication, which privileges verbal language and ignores other forms of expression.

Discussion

Our society overvalues appearance and tends to marginalize what is not standard, “a society totally concerned with the image and judging of differences”²² (our translation, p.27), which reflects directly on the school environment and pedagogical practices. This finding dialogues with research that advocates recognizing the singularities of fluencies, in which difference is welcomed and valued⁵⁻¹¹⁻¹³⁻²⁶. This deconstruction of the concept of normality, especially with regard to communication and speech, is addressed in a forceful way by the author: when she argues that fluency, far from being a stagnant and measurable concept, is a multifaceted phenomenon, which manifests itself in a unique way in each subject, and which must be analyzed in its specific context²⁶.



The training of professionals trained to deal with communicational diversity is another fundamental aspect in breaking paradigms, with training that includes pedagogical, social, political, and cultural knowledge, in addition to the specific knowledge of Speech-Language Pathology and Audiology²⁷. The author argues that it is necessary for the school to

“observe how the child’s relationship is with his peers and with the teacher, whether he participates or does not participate in the class; understand what is proposed for this child, how it is worked, what kind of resources they use, if it provides opportunities for children to participate, discuss, propose and encourage school teams to include oral and literary genres in action plans, provoke the teacher or other professional to dismantle what they already had as truth to see another possibility, to favor the singularity of the human being to appear, to compose with the school management team, with a group of teachers and other educators a view that complements not from the pathologies, but from the right to learning, among others”²⁷ (our translation, p. 152).

This view is in line with the proposal that demonstrates the effectiveness of Alternative and Expanded Communication (AAC) in promoting the inclusion of non-verbal students with Autism Spectrum Disorder (ASD)¹³. The author emphasizes that in addition to the instrumental dimension, “alternative communication has, above all, the need for competent and proactive interlocutors with attitudinal accessibility”¹³ (our translation, p. 5).

In the context of higher education, communication challenges persist and become more complex¹²⁻²⁸:

“The lack of educational accessibility in the university environment, identified by the absence of educational strategies to promote inclusive education, is a factor that generates anguish, anxiety and barriers to learning, with an impact on the academic performance and participation of students with ASD”¹² (our translation, p. 7).

This finding dialogues with the research that identifies reports of difficulties in social interaction and school performance in students with cleft lip and palate²², showing that communication barriers permeate the entire educational trajectory of individuals with communication disorders⁷.

A recurring finding is the persistence of attitudinal and communicational barriers at different

levels of education. Despite focusing on different audiences (individuals with cleft lip and palate and university students with ASD, respectively), studies¹²⁻²² identify similar difficulties in social interaction and academic performance.

While studies propose technological solutions for specific disorders¹³ (in this case, ASD), others question the very notion of pathology in communication²⁶, arguing that fluency is a phenomenon that manifests itself in a unique way in each subject, a perspective that challenges traditional and medicalizing approaches.

Relating divergences in the perception of parents/guardians and teachers about the difficulties faced by children with hearing impairment, indicating the need for greater dialogue between family and school⁸, contrasts with the approach that focuses on teacher-student interaction mediated by AAC¹³, suggesting that the inclusion of assistive technologies tends to favor the inclusion process to a greater extent.

Practical implications and perceived gaps

The research analyzed points to several practical implications, such as:

- Need for continuing education for educators, which includes technical, pedagogical and sociocultural aspects¹³⁻²⁷.
- Implementation of assistive technologies and AAC strategies, focusing on the uniqueness of each student¹³.
- Promotion of a welcoming and stigma-free school environment, from basic education to higher education¹²⁻²².
- Strengthening the dialogue between family and school so that the difficulties and potentialities of students can be shared⁸.
- Adoption of a critical perspective on the concepts of normality and pathology in communication²⁶.

Inclusion is a path of no return¹⁰, but still full of obstacles to be overcome⁶⁻¹²⁻¹⁷⁻²². The construction of a truly inclusive education requires a transformation that goes beyond pedagogical practices, integrating social conceptions about normality, difference and communication.

In this sense, research analyzed¹³⁻²⁶⁻²⁷ dialogues with the thought that inclusion cannot be seen as a technical project, but as an ethical posture in the face of otherness¹⁵, which calls us to rethink

our own conceptions about what it is to be human and what it is to educate, about the need for an education that transcends technical aspects and encompasses pedagogical knowledge, social and cultural aspects.

The continuing education of education professionals emerges as a crucial point in several researches analyzed, which resonates with those who argue that teacher training should be built within the profession, based on the acquisition of a professional culture that

“it does not represent any devaluation of theoretical or scientific knowledge, but rather the desire to resignify it in the space of the profession, since it is in the complexity of a training that expands from professional experiences and cultures that we can find a way out of teachers’ dilemmas”²⁹ (our translation, p. 11).

Technology emerges as a promising element in promoting inclusion, as evidenced in the research on AAC¹³. However, we believe that by itself it is not a magic solution to educational challenges and its potential is only realized when integrated with pedagogical practices that challenge barriers that compromise access.

The analyzed studies make clear the power of dialogue between family and school¹⁸⁻³⁰, a finding advocated by those who advocate having families and the community as partners in the elaboration and fulfillment of the school project⁹.

Final considerations

To face these challenges, we believe it is essential that education and pedagogy researchers appropriate the knowledge produced by speech-language pathology and audiology about communication disorders and adapt it to the educational context. This requires an interdisciplinary dialogue and an attitude of openness to the construction of new knowledge and practices that meet the demands of these students. In addition, it is necessary that the initial and continuing training of teachers contemplate the theme of communication disorders and school inclusion. The curricula of pedagogy courses and teaching degrees need to address these topics in a way that provides future educators with the theoretical and practical knowledge necessary to deal with communicative diversity

in the classroom. Likewise, continuing education programs should offer opportunities for updating and improvement for teachers who are already in practice. We understand that educational research should focus on the theme of communication disorders and school inclusion, producing knowledge that subsidizes the formulation of public policies and the transformation of pedagogical practices.

Despite the contributions, the analyzed studies have some gaps that deserve attention in future studies, such as the scarcity of longitudinal studies that follow the educational trajectory of students with communication disorders over time; Limited exploration of the intersections between communication disorders and other social markers, such as race, gender, and social class; Little attention to the experiences and perspectives of students with communication disorders, privileging the view of professionals and family members; Need for further studies on the effectiveness of different pedagogical approaches in diverse educational contexts.

Research also presents challenges that persist over time and others that emerge with social and technological transformations. Despite almost a decade of difference, two studies¹⁷⁻⁶ identify similar attitudinal barriers faced by students with communication disorders. This suggests that, despite legal and theoretical advances in the field of inclusive education, changing mindsets and practices is still a lengthy process.

The analyzed research also offers important subsidies for the formulation and improvement of public policies aimed at inclusive education, such as gaps in educational accessibility in higher education¹², which point to the need for policies that contemplate access and, above all, the permanence and academic success of students with communication disorders at all levels of education.

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