Brazilian Sign Language and phonoaudiologist training: a preliminary portrait for understanding bilingual phonoaudiologic practice

Libras e formação do fonoaudiólogo: um retrato preliminar para o entendimento da prática fonoaudiológica bilíngue

Priscila Starosky[1] , Carolina Magalhães de Pinho Ferreira[2] , Beatriz Lopes Porto Verzolla[3] ,
Maria Cecília de Moura[4] , Desirée De Vit Begrow[5] , Kathryn Marie Pacheco Harrison[4] ,
Adriana Di Donato Chaves[6] , Regina Lúcia Teixeira Sampaio[7] , Cilmara Cristina Alves da Costa Levy[8]

ABSTRACT

Purpose: To understand undergraduate training in bilingual speech and language therapy in Brazil and discuss its application to deaf individuals. **Methods:** An exploratory, cross-sectional study with descriptive and interpretative analysis conducted between August 2022 and February 2023 in partnership with the Sociedade Brasileira de Fonoaudiologia. Data were collected through an electronic form sent to the 115 active speech and language programs in Brazil. **Results:** Twenty-three programs participated, mainly from the Southeast Region and mostly public institutions. All programs offer courses on Brazilian Sign Language, mostly in-person, taught by hearing professors, ranging from 60 to 90 hours. Qualitative analysis revealed heterogeneous practices and perspectives on how curricula address deaf individuals' needs, often lacking a clear stance on understanding deafness and deaf people regarding cultural and linguistic diversity. Other practices are divided into oral/auditory approaches to auditory rehabilitation and the use of technological resources and bilingual approaches that, besides Brazilian Sign Language, emphasize language development stages (oral, written, and signed). **Conclusion:** Brazilian Sign Language content is present in curricula as required by law. However, there is still a tendency to overlook the needs of signing deaf individuals, favor oral/auditory practices, and limit bilingual speech and language therapy training to Brazilian Sign Language knowledge and non-mandatory projects and activities.

Keywords: Teaching; Speech therapy; Curriculum; Deafness; Sign language

RESUMO

Objetivo: conhecer a formação em Fonoaudiologia Bilíngue no Brasil em nível de graduação e discutir sua atuação junto a pessoas surdas. **Métodos:** estudo exploratório, transversal, de análise descritiva e interpretativa, realizado entre agosto de 2022 e fevereiro de 2023, com parceria da Sociedade Brasileira de Fonoaudiologia. A coleta foi realizada por meio de formulário eletrônico enviado aos 115 cursos de fonoaudiologia ativos no país. **Resultados:** Participaram 23 cursos de fonoaudiologia, predominantemente da Região Sudeste e a maioria, de instituições públicas. A disciplina de Língua Brasileira de Sinais era oferecida por todos os cursos, majoritariamente presenciais e com professores ouvintes, com carga horária de 60 a 90 horas. A análise qualitativa apontou nos currículos heterogeneidade de práticas e posicionamentos sobre a abordagem das demandas de pessoas surdas, predominando a falta de posicionamento sobre a compreensão da surdez e do sujeito surdo quanto a sua diversidade cultural e linguística. As demais práticas se dividiram em abordagens orais/auditivas relativas à reabilitação auditiva e ao uso de recursos tecnológicos e, por outro lado, em abordagens bilíngues que, além da disciplina de Língua Brasileira de Sinais, destacavam estágios em desenvolvimento da linguagem (oral, escrita e sinalizada). **Conclusão:** O conteúdo referente à Língua Brasileira de Sinais está presente nos currículos, como determina a lei. Entretanto, ainda há uma tendência à invisibilização das demandas das pessoas surdas sinalizadoras nos currículos, a práticas orais-auditivas, à restrição da formação em Fonoaudiologia Bilíngue aos conhecimentos da Língua Brasileira de Sinais e a projetos e atividades curriculares não obrigatórias.

Palavras-chave: Ensino; Fonoaudiologia; Currículo; Surdez; Língua de sinais

---

INTRODUCTION

The Phonoaudiology is historically linked to deaf people. Its trajectory began with a medical and rehabilitative focus in the 1960s[1] and continued in this direction with various phonoaudiologists to this day.

However, questions about this approach began to appear at the end of the 20th century[2]:

> The role of phonoaudiologists with* hearing impaired persons has been and is being severely questioned. What was defined until recently by techniques and knowledge that could vary according to schools, and theoretical bases, in short, the substrate of any work with language, which is the phonoaudiologist field of activity, has become an undefined field[3;55].

On the other hand, the Phonoaudiology, based on work with language, establishes a path in which it seeks its role (which should be rethought) beyond the walls of hearing and auditory rehabilitation. In the last 20 years, major technological changes have emerged[4], including great advances in hearing aid (HA) and cochlear implant (CI) technology.

Phonoaudiologists remained constant in this process, both in HA selection and fitting and CI programming. However, if we look even further back, we see that, from the 1970s onwards, another form of working with deaf people began to be studied, and proposals for work using signs taken from sign language (SL) began to take place, constituting a new perspective, named Total Communication (TC). This new proposition[2] is configured broadly as the use of all forms of communication that prove to be effective for the development of the child, such as speech, lip reading, hearing, sign language, manual Portuguese, signed Portuguese, digital alphabet, gestures, mime, drawing, figures, writing, and so forth.

This perspective was followed for some years in developing children's language with greater success than oralist work. However, the movement in favor of minority rights was also present in the deaf community, showing that the model did not contribute to SL acquisition but rather to communicative possibilities, regardless of the form, which does not guarantee effective linguistic contact for the deaf child.

This movement strengthened an educational philosophy based on respect for SL, culture, and the deaf community, enabling the construction of an integral identity as a deaf person[5]. This philosophy, called Bilingualism for the Deaf, recognizes the right of deaf children to have SL as their first language and the second language, or additional language[6], the languages of the linguistic majority, preferably in written form and after in oral form. Furthermore, one must also consider what is deemed as a "comfort language", which refers to the most accessible one, giving the speaker security in interactions[7].

Bilingualism for the Deaf emerged in Sweden in the 1980s[2] and spreads worldwide. In Brazil, it gained strength with the enactment of Law No. 10,436[8], which recognized Brazilian Sign Language (Libras) as a legal means of communication and expression for deaf communities in Brazil. Decree No. 5,626[9] was enacted to regulate and enable the law to be applied in a way that guaranteed the rights of this population. Such legislation has a significant impact on different aspects that affect deaf people. These achievements did not arise from the political articulation of a specific professional category, but rather from the movement of deaf people, who consider themselves a linguistic and cultural minority, with allied professionals, based on understanding and recognizing the rights of this minority. Thus, the responsibility of professionals in training and work in Phonoaudiology is even greater so that the laws are complied with, considering the demands and needs of these people. Hence, a new perspective is posed for the Phonoaudiology, opening new horizons for phonoaudiologists practice, now supported by law. Decree 5626/2005[9] establishes, among other issues, in chapter II, Art. 3, that:

> Libras must be included as a mandatory curricular subject in teacher training courses for teaching, at secondary and higher education, in Phonoaudiology programs, in public and private educational institutions, in the federal education system, and the education systems of the States, Federal District, and Municipalities.

This mandatory teaching of Libras in the phonoaudiologist training has a direct impact on phonoaudiologic practice among deaf people, also reverberating in the contribution of social visibility, mainly by emphasizing the importance of deaf children's access to Libras from birth, highlighting the relationship established with the literacy process. However, there are no clear parameters on how this content would be offered in Phonoaudiology programs, which historically emphasize orality and the use of auditory technologies to the detriment of the use of sign language by deaf people[2]. There is no doubt that this legislation puts Brazil ahead of other countries in terms of legal support for SL, with very important consequences and in different aspects that affect both deaf people and the community that works directly with them[10]. However, it is important to emphasize that a language policy goes beyond the paths of the law and requires that society understand equitable linguistic rights.

It is necessary to understand the phonoaudiologist training profiles to enable them to address the needs of deaf people. Thus, this research aimed to understand Bilingual Phonoaudiology undergraduate training in Brazil concerning the work of future professionals with deaf people. The aim was also to use the results of the training as a backdrop for reflection and to make recommendations on the development and exercise of specific skills in Bilingual Phonoaudiology.

METHODS

This is an exploratory, cross-sectional, descriptive, interpretative study. Data were collected in a virtual environment through an online questionnaire with open-ended and close-ended questions, with the possibility of also attaching documents (Annex 1).

The research was approved by the Human Research Ethics Committee of the Nova Friburgo Health Institute of the Fluminense Federal University (CEP/ISNF-UFF) under evaluation report no. 5.486.663. Participant recruitment was carried out with the support of the Brazilian Phonoaudiology

---

*The expression "hearing impaired persons" (portadores de surdez) is being used here as in the original text, as late as 2002. Now a days, legal texts and the literature consider it correct to say, "deaf person", Deaf or "hard of hearing". This study uses the term "deaf person" to refer to a group of people with different hearing losses: bilateral or unilateral hearing loss of different degrees and types, pre-lingual or post-lingual, oralized deaf or deaf signer, users or not of hearing technologies.

Society (SBFa). Before accessing the form, all respondents indicated they had read the electronic informed consent form. The questionnaire was sent via institutional contacts to coordinators and teaching departments of Phonoaudiology programs throughout Brazil. The collection was carried out from August 2022 to April 2023, seeking the greatest amount of information about Phonoaudiology programs in operation in the country. The research recruitment message, which already included the research form and the informed consent form, was re-sent to higher education institutions (HEIs) that had not responded by the end of the collection period.

Recruitment began in August 2022 by sending forms to the 99 e-mails of coordinators and departments of Phonoaudiology programs in Brazil, provided by SBFa. However, only 20 responses were received by February 2023. At that time, a consultation was carried out on the e-MEC platform[11] and it was found that, of the 151 registered Phonoaudiology programs, 25 were "extinct" and 11 "in deactivation/voluntary termination", totaling 115 active courses, including those in distance learning. Therefore, an online search was carried out to update the contact details of the courses.

The data were organized into three axes for analysis: 1. characterization of the HEIs and programs; 2. characterization of the Libras course in the program; 3. characterization of the training in relation to the demands of deaf people. The analysis of the quantitative data, related to axes 1 and 2, was presented in a descriptive way, without statistical treatment. Such information provided indicators of the profile of the HEIs/Phonoaudiology programs and their way of approaching the theme. The discursive data, related to axis 3, was subjected to interpretative analysis based on specific literature.

RESULTS

Of the 115 Phonoaudiology programs considered for recruitment to participate in the research, 24 responses were obtained after sending messages to the course coordinators. However, of this total, two phonoaudiologists who participated in the study belonged to the same institution, generating duplicate information. The researchers chose to keep the form response with the largest amount of information requested. Thus, the data were based on the validated responses (i.e., 23 HEIs), corresponding to 20% of HEIs in Brazil:

Axis 1: Characterization of the HEIs and programs

The purpose of the first part of the questionnaire was to identify the respondent's profile, institutional data, and general data on the Phonoaudiology program. In this category of the study, 100% of the responses were obtained.

The questionnaire was answered by one student (4.4%), nine professors (39.1%), and 13 (56.5%) coordinators/administrators. The form was addressed to the course coordinators; however, one respondent identified themselves as a student. Some institutions offer administrative internship programs, and this may be the case for the respondent.

Institutions from 14 (53.8%) states and the Federal District, out of the 26 federative states in Brazil, participated in the study, namely: Alagoas (AL), one (4.3%); Amazonas (AM),

one (4.3%); Bahia (BA), two (8.7); Ceará (CE), one (4.3%); Espírito Santo (ES), one (4.3%); Minas Gerais (MG), four (17.4%); Pernambuco (PE), one (4.3%); Paraíba (PB), one (4.3%); Paraná (PR), one (4.3%); Rio de Janeiro (RJ), three (13%); Rio Grande do Sul (RS), one (4.3%); Santa Catarina (SC), one (4.3%); São Paulo (SP), three (13%); Sergipe (SE), one (4.3%); and the Federal District (DF), one (4.3%).

As for the distribution of responding HEIs per geographic region, the following configuration was obtained: one in the North (4.3%), seven in the Northeast (30.5%), one in the Central-West (4.3%), 11 in the Southeast (47.9%), and three in the South (13%).

Considering the HEIs in regular operation, according to e-MEC[11], distributed among the current nine Regional Phonoaudiology Councils[12] (CRFa), the scenario for respondents participating in this study was as follows: CRFa 1st Region with three HEIs (13%); CRFa 2nd Region with three HEIs (13%); CRFa 3rd Region with two HEIs (8.7%); CRFa 4th Region with six HEIs (26.1%); CRFa 5th Region with one HEI (4.3%); CRFa 6th Region with five HEIs (21.7%); CRFa 7th Region with one HEI (4.3%); CRFa 8th Region with one HEI (4.3%); and CRFa 9th Region with one HEI (4.3%).

Regarding the institutional profile, nine of the 23 HEIs were private, with one (4.3%) identified as community-based and eight (34.8%) as private, corresponding to 39.2%. Four of the 14 public institutions were state-owned (17.4%), and 10 were federal (43.4%). Thus, most of the HEIs participating in the study (60.8%) were supported by public resources.

Regarding the total number of academic semesters of the courses, it was reported that 11 HEIs were organized into eight semesters, three HEIs into nine, and eight HEIs into 10. It is worth noting that one HEI in the state of Rio de Janeiro reported that in the current semester, there were still eight semesters, but that the curriculum was in transition and the new curricular profile would include 10 semesters starting in 2023. Therefore, the data from this HEI were not computed in this questionnaire item.

Axis 2: Characterization of the Libras course in Phonoaudiology programs

Considering the year the Libras discipline began in the Phonoaudiology programs, the responses were grouped into intervals, relating them to the current legislation. Thus, until the publication of the Libras Law[8], there were two (8.7%) HEIs; from 2003 until the publication of the decree[9] that regulates the Libras Law, also two (8.7%) HEIs; after the enactment of the aforementioned decree, the law made it mandatory to implement the Libras discipline within the following 10 years – i.e., by 2015. Hence, in this period, there were 14 (60.9%) HEIs; after this date, one (4.3%) HEI was reported. Four (17.4%) HEIs did not respond or were unable to provide information about this question.

The Libras course was offered in different teaching modalities, 18 (78.3%) in-person, three (13%) in-person and distance learning, and two (8.7%) entirely in distance learning.

Regarding the total workload of the Libras course in the programs, the focus of the seventh question, the result was a minimum of 30 hours and a maximum of 90 hours per course. However, some HEIs offer more than one Libras course. Thus, when counting the total hours offered per course, seven (30.4%)

HEIs were identified with 50 hours or less, six HEIs (26.1%) with up to 60 hours, eight HEIs (34.8%) with up to 90 hours, and only one HEI (4.3%) with 120 hours. One (4.3%) HEI was unable to inform the total workload taught in Libras. It is worth mentioning that one HEI reported offering 30 hours until 2023 and 90 hours from that year onwards dedicated to teaching Libras. It was not specified whether these workloads referred only to the mandatory course or the total of the mandatory and optional courses. The HEIs also reported that 12 (52.2%) offered Libras as an optional subject, in addition to the mandatory subject(s), and 11 (47.8%) did not offer it.

Regarding the Libras professors' profiles, it was possible to notice inaccurate information about the condition of deaf or hearing, since some of them referred only to the professor's training. Thus, there were eight (34.8%) HEIs with only deaf professors, 10 (43.5%) with only hearing professors, two (8.7%) with both deaf and hearing professors, and three (13%) that did not explicitly state this condition. Regarding these professors' training, 15 had degrees in Languages-Libras, seven in Phonoaudiology, two in Special Education, two in Languages with certification in the Prolibras exam, and one was not specified. It was observed that the total number of responses about training exceeded the total number of HEIs, since there were disciplines with more than one professor sharing the teaching, as reported by the respondents.

Regarding the mandatory Libras course, whether offered by the Phonoaudiology department or program or any other one in the HEI, 10 (43%) HEIs reported that it was offered by another department, as follows: four from Languages (40%); two from Education (20%); one from Special Education (10%), one from Sign Language (10%); and two did not specify (20%).

Regarding the period(s) of the program when the mandatory course(s) were offered, the responses indicated a variety of curricula, reporting that the Libras course was offered in a single semester, totaling 16 HEIs (70%), in more than one consecutive semester, totaling six HEIs (26%) and, in non-consecutive semesters in only one HEI (4%).

The first group, in which Libras was offered in only one discipline, included four HEIs in the first semester; one HEI in the second; one HEI in the third; three HEIs in the fourth; two HEIs in the fifth; one HEI in the sixth; two HEIs in the seventh; and two HEIs in the eighth. The second group extends from the initial years, with Libras included in the components of the basic cycle to the most advanced periods of the professional cycle, considering that most HEIs complete the program in 4 years. The responses obtained were that one HEI offered Libras in the first and second semesters, one HEI began offering it in the second (basic cycle) but concluded in the fourth (professional cycle), and four HEIs offered the discipline from the fourth onwards. Finally, in the last group, offering it non-consecutively, one HEI reported that it offered the Libras discipline in the second and fifth semesters.

Axis 3: Characterization of training regarding deaf people's needs

This axis addressed the six final questions of the form, with the final question being a space for participants to comment on the topics covered and possible curricular changes. The analysis of the responses to these questions led to the establishment of three categories: (a) understanding deafness and deaf people;

(b) relationship between understanding deafness and forming practices; and (c) relationship between understanding deafness and the academic teaching-research-outreach tripod. The highlighted excerpts referring to the selected responses were followed by the indication of the HEI and the number corresponding to the order in which the responses appeared throughout the text.

3.a: Understanding deafness and deaf people

The first three questions of the axis, which addressed the theoretical and internship course in phonoaudiologic practice with deaf people and the ones that addressed the use of Libras in Phonoaudiology practice, highlighted different understandings of deafness and deaf people, which were grouped into three subcategories: (A) audist positions**, (B) positions that consider linguistic and cultural diversity, and (C) responses that do not clearly position the understanding of deafness (Table 1).

Most responses lacked positioning on the understanding of deafness and deaf people (subcategory C), either due to absent responses or not having presented sufficiently clear arguments for classification, generally presenting the courses of "Educational Audiology" or "Deafness and Phonoaudiology". Next came the responses that highlighted practices that value linguistic and cultural diversity (subcategory A), presenting theoretical and practical proposals that include bilingual approaches, understanding deaf culture, and a tendency to expand Libras teaching and learning in the curriculum, as well as bilingual phonoaudiologic practice, as highlighted in the excerpt below:

> As the program has its own department (Deaf People's Service), professors and students experience daily contact with deaf people, many of whom use LIBRAS. This involvement awakens students' interest in learning LIBRAS, and we offer LIBRAS courses for students and the community in general, in addition to the specific LIBRAS course. Thus, LIBRAS content is covered in both the course and the internship (HEI 1).

Among the responses that presented positions identified as audists (subcategory B), Phonoaudiology courses and practice based on oral/auditory approaches were predominantly mentioned, considering the use of electronic devices, HA and CI selection and fitting, auditory habilitation and rehabilitation, without mentioning bilingual phonoaudiologic practice and linguistic and cultural diversity related to deaf people, as demonstrated in the excerpt below:

> Electronic devices applied to hearing impairment; Auditory habilitation and rehabilitation. In the first course, students learn the contents of HA and CI selection and fitting; in the other course, they learn the HI assessment and therapy procedures [understanding HI as "Hearing Impaired"] (HEI 1).

In the third question, related to the courses that address the use of Libras in phonoaudiologic practice, the answers categorized as positions that considered linguistic and cultural diversity (subcategory A), in the interpretation of this study, seemed to restrict bilingual phonoaudiologic practice only to learning or using the language, without emphasizing phonoaudiologic

---

** Audism is understood as a set of practices aimed at deaf people referenced in normal hearing – i.e., in speech training, the use of auditory technologies, and as a way for hearing people to dominate and impose their authority over deaf people, in a relationship of linguistic and cultural oppression[13].

Table 1. Distribution of understanding deafness and deaf people in questions about courses and internships related to the deaf people's needs and the Brazilian Sign Language

Subcategories	(1) Disciplines related to deaf people		(2) Internships related to deaf people		(3) Courses related to Libras and the Phonoaudiology courses		MEAN
	n	%	n	%	n	%	%
(A) Positions that consider linguistic and cultural diversity	6	26.09	6	26.09	6	26.09	31.89
(B) Audist positions	5	21.74	3	13.04	5	21.74	18.84
(C) No specific stand on understanding deafness	12	52.17	14	60.86	8	34.78	49.27
TOTAL	23	100	23	100	23	100	100

Subtitle: n =........................; % = percentage

clinical skills beyond linguistic knowledge, as illustrated in the excerpt: "Yes, Libras practice" (HEI 2).

3.b: Relationship between understanding deafness and forming practices

The second category of analysis involved responses mentioned in the first category and the fourth question on the form, addressing deaf people's demands cross-sectionally in the training of professional practices. It was found, in the institutions analyzed, that the conceptions about deafness inherent to phonoaudiologic training influenced the organization of pedagogical practices developed with students, in offering topics and curricular internships.

In institutions that adopted oral/auditory approaches, the main practices were related to internships in auditory rehabilitation and educational audiology, with an emphasis on the use of technological resources.

The institutions that highlighted bilingual approaches in the mandatory curriculum of students, in addition to the Libras course, emphasized mandatory internships, with an emphasis on different approaches to language development (oral, written, and signed), with such practices being contemplated in internships related to Educational Phonoaudiology and Audiology, Public Health, Language Clinic, considering deaf people's linguistic diversity:

> [In] the Supervised Internship in Educational Phonoaudiology and Audiology, one of the internship areas is in the Deaf Persons Care Sector, a service [...] that serves 75 deaf people outside school hours. In this service, they develop workshops to stimulate oral language and Libras, according to each person's development. Phonoaudiology students develop activities focused on phonoaudiologic therapy at school and therapeutic care, using Libras when necessary (HEI 1).

In addition to specific disciplines and internships in audiology and/or language, the aspect of curricular cross-sectioning that considers the various phonoaudiologic needs of deaf people was also investigated. These aspects still need to be better defined in relation to their implementation, as it identified more heterogeneous responses from the participating institutions. Through the responses analyzed, most institutions did not answer this question (subcategory G), followed by responses that stated that they were cross-sectional but did not make clear what needs there were (subcategory A - Figure 1). The institutions without cross-sectioning indicated they only worked on the auditory-oral demand or the bilingual linguistic demand (subcategories B and E).
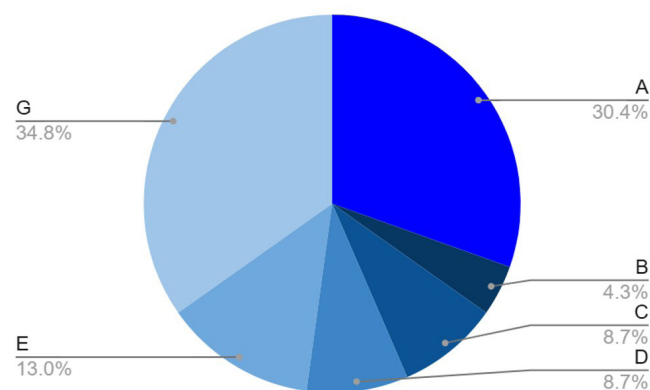
Figure 1. Distribution of the cross-sectional organization of curricular actions related to deaf people.
Subcategories of response analysis: (A) Cross-sectional, but does not explicitly address practices with deaf people (7); (B) Not cross-sectional, understanding only oral/auditory development as a speech-language-hearing need of deaf people (1); (C) Cross-sectional, highlighting practices in other speech-language-hearing areas, without considering deaf people's linguistic diversity (2); (D) Cross-sectional, highlighting bilingual practices in other speech-language-hearing areas in addition to linguistic development (2); (E) Not cross-sectional, highlighting bilingual practices that deal only with linguistic development (3); (F) None (0); (G) No answer (8)

For institutions that demonstrated that they addressed the demands of deaf people, the conception of deafness influenced the proposals and actions taken. There were actions related to the use of individual sound amplification devices or addressed the issue of deaf people in general inclusive contexts or in an educational environment, in an integrated manner with other aspects related to communication, without considering deaf people's linguistic specificity (subcategory C).

Among the institutions that demonstrated bilingual practices and addressed deaf people's needs, initiatives stood out to address, for instance, issues related to deaf people in language, orofacial motor skills, and voice subjects, besides encompassing comprehensive health and education actions (subcategory D):

> Deaf patients are cared for from the moment they are admitted, from screening to birth, or upon their subsequent arrival. They participate in bilingual group activities, bilingual phonoaudiologic care, bilingual pedagogy groups for deaf people, in addition to care with audio professionals (HEI 2).

The institutions also pointed out difficulties in implementing the actions due to aspects inherent to structuring the curriculum and intersecting between professors of different disciplines. As alternatives to the curricular insertion of these demands, they search for dialogue between educators with different conceptions or the formation of extracurricular projects, especially in outreach:

> We tried to establish a dialogue with the Audiology disciplines, but it is still quite difficult. Despite this, all Language disciplines follow the same theoretical perspective, which makes it easier to look at deaf people as well (HEI 3).

> There are still difficulties in mainstreaming the demands of deaf signers in training. As a rule, these demands are met with advice and support from the "specialist" professor in the area at specific times [...] other areas, in the form of specialist professors, have still not integrated actions with the justification of the "language barrier", but students have increasingly demanded [more] this integration into training, enabling extension actions, projects, etc. (HEI 4).

3.c: Relationship between understanding deafness and the academic teaching-research-outreach tripod

Regarding the third category analyzed, related to the fifth question only, most HEIs highlighted outreach projects, academic leagues, and research activities related to deaf people (subcategories A, B, C, D, and E). Some institutions mentioned extension and research actions that included the bilingual phonoaudiologic practice (subcategories A and C) and the implementation of outreach actions and academic leagues covering themes related to Libras and the deaf community (subcategory B), but without a direct relationship with the bilingual phonoaudiologic practice (Figure 2).

It was found that the number of outreach projects related to bilingual phonoaudiologic care (subcategories A and C) was twice as high as those from an oral-auditory perspective (subcategory D). Interprofessional projects (i.e., involving

Figure 2. Distribution of research and outreach actions.
Subcategories of response analysis: (A) There are specific outreach projects for working in bilingual speech-language-hearing practices (2); (B) There are outreach projects and academic leagues linked to Libras and the deaf community, but without a direct relationship with working in bilingual speech-language-hearing practices (5); (C) There are outreach projects and research in bilingual phonoaudiologic practices (2); (D) There are outreach projects and leagues from the oral/auditory perspective (2); (E) There is undergraduate and postgraduate research, but it is not specified whether it is about working in bilingual phonoaudiologic practices (2); (F) None (1); (G) No answer (9)

several interdisciplinary professions related to the signing deaf community) (subcategory B), appeared in greater numbers than bilingual phonoaudiologists (i.e., uniprofessional) (subcategories A and C).

Furthermore, analyzing the sixth and final question, 30.4% of the participating HEIs highlighted the process of reformulating the curriculum, with 17.3% of these pointing out the expansion of training in Libras and/or bilingual phonoaudiologic approach for deaf people. This is in line with what the participating institutions pointed out in relation to the need to increase the workload of the Libras course, greater integration between different courses in the program, cross-sectional actions, and inter-institutional partnerships.

Regarding collaborative activities, one of the participating institutions mentioned outreach and research activities carried out in partnership between three educational institutions for deaf children's development:

> [...] production of materials for the linguistic development and other associated aspects of deaf children from a bilingual perspective [name of outreach project removed]. The research activities developed are linked to two CNPq research groups [name of the group removed]. Scientific and academic dissemination with accessible language and aligned with current events is carried out, especially on the Instagram social network (HEI 5).

DISCUSSION

The low participation of HEIs in this specific research may reflect the limits that training processes still have in the area, impacting subsequent professional performance and the steady phonoaudiology practice from the perspective of Bilingualism for deaf people. This is observed in documents that define guidelines for phonoaudiologic practice in Brazil[12]. The Phonoaudiology care parameters in Brazil, while evidencing advances regarding the presence of Libras in the Phonoaudiology assessment, present a discrepancy between the time and the number of procedures aimed at SL, in comparison to the oral language, with the former being less valued. On the other hand, the teaching of Libras in phonoaudiologic practice is not considered when defining parameters for its teaching, as observed in an important current study on the subject[14]. Lastly, there is a need to strengthen the area in Brazilian health policy[15,16] which still "directs its actions exclusively towards achieving a hearing standard, disregarding the multiplicity of deaf subjects" [15:1567].

Another aspect to be considered is that most responses were obtained from program coordinators, which may not necessarily reflect the view of the professor in the area – i.e., it may come from the hidden curriculum that permeates the official syllabuses and programs, though not explicitly stated in them[17]. This hidden view may be refractory to respect for linguistic and cultural diversity, disregarding the phonoaudiologic practice with sign languages and the needs of the signing deaf community.

Most participating HEIs were from the Southeast Region (47.9%). However, regarding the organization of the category in Regional Councils, the most expressive participation was from the 4th Region (26.1%), which encompasses the states of Alagoas, Bahia, Paraíba, Pernambuco, and Sergipe, thus
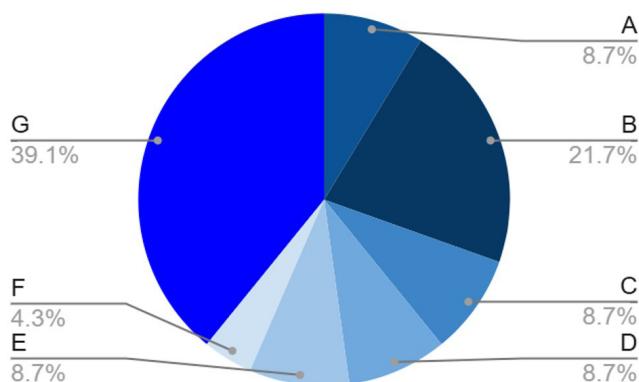
highlighting the representativeness of these two geographic axes in the research results.

It is worth noting that three programs offered the Libras course even before 2005 when Decree No. 5,626 was published[9]. All other programs participating in the research guaranteed they offered the course, meeting the legal requirement. However, following this requirement is not enough to guarantee the minimum necessary for the bilingual phonoaudiologic practice, as pointed out by previous studies[14,18,19,20]. The workload was a widely discussed aspect, and the results indicated that the participating HEIs offered 30 to 120 hours, with an average of 62.4 hours. A study that showed the need to increase the insufficient workload took as a parameter the basic course of the National Federation for Deaf People's Education and Integration (FENEIS), which totals 180 hours[18].

Recent experience in mainstreaming the visual-spatial language modality into program curricula has also indicated the need not only to increase the workload but also to diversify when Libras is addressed, based on other approaches to human development (Anatomy, Linguistics, and Neurosciences) and phonoaudiologic practice (fieldwork and internships)[21]. Ratifying these indications, knowledge of Libras is included as "fundamental content of Phonoaudiology" in the proposal for the new National Curricular Guidelines for Phonoaudiology undergraduate programs[22], currently in the process of being approved.

The results showed that Libras began being taught in Brazilian higher education in 2006, with the undergraduate program in Languages-Libras at the Federal University of Santa Catarina (UFSC)[20], which was offered in person at that university but with distance learning centers in different states of Brazil. It was observed that most courses offered the subject in person, which indicates some prestige of this content. New didactic-methodological strategies for teaching Libras were also inaugurated in the country, raising new questions, such as what is the most appropriate period to offer this subject[23]. The results of this study confirm these questions, as they showed that Libras is offered in only one or two courses, sometimes in the components of the basic cycle, sometimes in the more advanced periods of the professionalizing cycle.

A recent publication[14] presents a proposal for Libras teaching levels based on the Common European Framework of Reference for Languages[24] and the Common European Framework of Reference for Sign Language Teaching (ProSign)[25]. The publication describes the proficiency levels in Libras as a second language, offering a reference for teaching, including the development of teaching materials, such as video classes with deaf teachers, freely accessible on the Libras Portal[26]. However, the proposal, which was designed for educational environments, does not mention Phonoaudiology among the contexts for teaching Libras, which highlights the invisibility of this demand, despite it being mandatory content for training in Brazil.

The data on training in relation to deaf people's needs mostly showed a lack of positioning on the understanding of deafness and deaf people. The lack of positioning, a priori, should not be interpreted as neutrality, as there is a tendency to follow the hegemonic positioning that was in force until the 1960s[1], which is confirmed by the recent visibility of sign languages by organizations that direct health practices[27,28]. On the other hand, some of the positions that consider linguistic and cultural diversity tend to restrict training to linguistic knowledge of Libras, which may be insufficient for bilingual phonoaudiologic clinical practice[5,18,19]. In other words, the levels of proficiency and skills necessary to work with deaf aphasic adults, adolescents learning written Portuguese as a second language, and children with atypical SL processing would be different. It is also worth noting that the positions of the same institution have alternated, sometimes being audist, sometimes "neutral", or considering diversity, highlighting the evolutionary nature of the area.

When relating the understanding of deafness to the formation of practices, most institutions did not respond about deaf people's cross-sectional needs in the curriculum. On the other hand, the second largest number of responses was cross-sectional but did not make clear what these demands would be. This result shows a tendency to not yet offer training in comprehensive care for deaf people, also considering their cultural and linguistic diversity[29,30], which should be the prerogative of bilingual phonoaudiologic practice[21]. One of the responses pointed out the importance of the "specialist professor" (HEI 4) as the mediator of curricular changes, which also points to the question about the need for specialization in the area.

It was also noticed that the number of outreach projects related to bilingual phonoaudiologic care was twice as high as those from an oral-auditory perspective, indicating that bilingual phonoaudiologic practice is in demand by deaf people, but is less focused on research and teaching activities, such as internships, for example. This discrepancy between activities of different academic natures weakens the formation of specific skills in the area in undergraduate students and the production of scientific knowledge.

Furthermore, the interprofessional projects, which appeared in greater numbers than those solely focused on Phonoaudiology, involved Libras and the deaf community. This may indicate greater acceptance and appreciation of the linguistic diversity of deaf people in the field of health care in general, in comparison with the Phonoaudiology, which still appears to be strongly influenced by audist reasoning.

There were indications of curricular changes that expand bilingual phonoaudiologic care in four programs, although the same number of programs indicated changes without specifying in which direction, which may follow the hegemonic trend that still favors oral-auditory practices in curricula. Moreover, programs followed the official regulations of the category to prepare their curricula, and these still do not fully address the issue of deaf people.

A limitation of the study, in addition to the low adherence of programs, is that the relationship between Libras content and other subjects in the curriculum was not addressed, such as the existence of prerequisites and corequisites.

CONCLUSION

Despite the low participation of undergraduate programs, the study allows us to outline aspects relevant to understanding bilingual phonoaudiologic training in Brazil. Although the content related to Libras is present in the curricula, as required by law, these aspects still show a tendency towards oral-auditory practices, the invisibility of deaf people's needs, and the restriction of bilingual phonoaudiologic training to knowledge of Libras and non-mandatory curricular projects and activities. These training practices are associated with a non-positioned view on deafness and deaf people or an evidently audist view,

although the existence of non-mandatory activities (outreach projects, research, and leagues) may represent resistance until these needs are addressed in the curriculum and training.

On the other hand, the lack of official training guidelines and parameters and health policies considering deaf people's linguistic and cultural diversity reinforces the challenges to developing and exercising the specific skills of bilingual phonoaudiologic care. To move forward, based on this outline, it is recommended that educators and policymakers in the professional category:

- use studies on teaching and learning Libras in professional training contexts[14,19] to develop a mandatory minimum curriculum for Libras for Phonoaudiology undergraduate programs.

- establish competencies for bilingual phonoaudiologic practice, considering deaf people's different needs and which would be suitable for generalist and specialist training, through recognition of the area as a Phonoaudiology specialty in Brazil***.

- ensure the participation of deaf educators together with bilingual phonoaudiologists in training.

- ensure that bilingual phonoaudiologic procedures are present in the care parameters in equity to oral-hearing people, considering deaf people's linguistic complexity and needs.

- ensure the presence of Libras and deaf people's needs as a cross-sectional topic in training[21], as proposed by the new guidelines for national curricula.

It is also clear that there is no consensus on the scope of the bilingual phonoaudiologic practice for deaf people and that the area presents a counter-hegemonic discourse. Therefore, it needs to be strengthened, especially in training, encouraging future phonoaudiogists toward practices that are more sensitive and appropriate to the new times.

ACKNOWLEDGEMENTS

REFERENCES

1. Brasil BC, Gomes E, Teixeira MMF. O ensino de fonoaudiologia no Brasil: retrato dos cursos de graduação. Trab Educ Saúde. 2019;17(3):e0021443. http://doi.org/10.1590/1981-7746-sol00214.

2. Lodi ACB, Lacerda CBF. Formação de professores de língua brasileira de sinais: reflexões sobre o impacto desta ação para a educação. Educação e Filosofia. [Internet]. 2016;29(N. esp.):279-99 [citado em 2024 Fev 8]. Disponível em: https://seer.ufu.br/index.php/EducacaoFilosofia/article/view/29983.

3. Moura MC. O surdo: caminhos para uma nova identidade. Rio de Janeiro: Revinter; 2000. 152 p.

4. Tomaszewski P, Krzysztofiak P, Moroń E. From sign language to spoken language? A new discourse of language development in deaf children. Psychol Lang Commun. 2019;23(1):48-84. http://doi.org/10.2478/plc-2019-0004.

5. Moura MCD, Begrow DDV, Chaves ADD, Azoni CAS. Fonoaudiologia, língua de sinais e bilinguismo para surdos. CoDAS. 2021;33(1):e20200248. http://doi.org/10.1590/2317-1782/20202020248. PMid:33909844.

6. Soler PS, Martins VRO. Língua portuguesa como língua adicional para surdos e o seu aprender em articulação com a Libras como língua matriz. Rev Bras Educ Espec. 2022;35:e63/1-21. http://doi.org/10.5902/1984686X64603.

7. Santiago VA, Turcato EMV. Interpretação intermodal em conferência multilíngue: de língua estrangeira para língua de sinais. Tradterm. 2023;43:27-53. http://doi.org/10.11606/issn.2317-9511.v43p27-53.

8. Brasil. Lei n. 10.436, de 24 de abril de 2002. Dispõe sobre a Língua Brasileira de Sinais – Libras e dá outras providências. Diário Oficial da União [Internet]; Brasília; 2002 [citado em 2024 Fev 8]. Disponível em: http://www.planalto.gov.br/cCivil_03/LEIS/2002/L10436.htm.

9. Brasil. Decreto n. 5.626, de 22 de dezembro de 2005. Regulamenta a Lei n. 10.436, de 24 de abril de 2002, que dispõe sobre a Língua Brasileira de Sinais – Libras, e o art. 18 da Lei n. 10.098, de 19 de dezembro de 2000. Diário Oficial da União [Internet]; Brasília; 2005 [citado em 2024 Fev 8]. Disponível em: https://legis.senado.leg.br/norma/566431.

10. Quer J, Quadros RM. Language policy and planning in deaf communities. In: Schembri AC, Lucas C, editores. Sociolinguistics and deaf communities. Cambridge: Cambridge University Press; 2015. p. 120-45. http://doi.org/10.1017/CBO9781107280298.006.

11. Brasil. e-MEC. Cadastro Nacional de Cursos e Instituições de Educação Superior. Cadastro e-MEC [Internet]. Brasília: e-MEC; 2024 [citado em 2024 Fev 8]. Disponível em: https://emec.mec.gov.br/emec/nova.

12. Sistema de Conselhos de Fonoaudiologia. Parâmetros Assistenciais em Fonoaudiologia [Internet]. Brasília; 2017 [citado em 2024 Fev 8]. Disponível em: https://www.fonoaudiologia.org.br/wp-content/uploads/2019/09/Parametros-Assistenciais_editado-final-1.pdf.

13. Azevedo EEB, Aquino JEF, Hora MM. Questão surda: compreendendo o audismo como expressão da questão social. Temporalis. [Internet]. 2021 Dec [citado em 2024 Fev 8];21(42):188-205. Disponível em: https://periodicos.ufes.br/temporalis/article/view/36585.

14. Sousa AN, Lohn JT, Quadros RM, Dias L, Neves N, Gusmão G. Quadro de referência da Libras como L2. Fórum Lingüístico. 2020 Set;17(4):5488-504. http://doi.org/10.5007/1984-8412.2020.e77339.

15. Vianna NG, Andrade MGG, Lemos FCS, Rodriguez-Martín D. A surdez na política de saúde brasileira: uma análise genealógica. Ciênc Saúde Coletiva. 2022 Apr;27(4):1567-80. https://doi.org/10.1590/1413-81232022274.09142021.

16. Bento NA, Vilhalva S. Libras, surdos e interseccionalidades. In: Moura C, Begrow, DDV. Libras e surdos: políticas, linguagem e inclusão. São Paulo: Contexto; 2024. p. 113-24.

17. Souza TP, Gomes E. Avaliação do ensino da ética, bioética e deontologia na formação do fonoaudiólogo do Rio Grande do Sul sob o olhar docente. Meta: Aval. 2022;14(42):141-67. http://doi.org/10.22347/2175-2753v14i42.3577.

18. Guarinello AC, Berberian AP, Eyng DB, Festa PSV, Marques JM, Bortolozzi KB. A disciplina de Libras no contexto de formação acadêmica em fonoaudiologia. Rev CEFAC. 2013 Mar;15(2):334-40. http://doi.org/10.1590/S1516-18462012005000047.

19. Ferreira CMDP, Starosky P, Melo PND, Barros MPGD, Fernandes FS. Avaliação em língua brasileira de sinais no contexto da fonoaudiologia

---

***Current demand of the Committee on Sign Language and Bilingualism for Deaf People of the Brazilian Speech-Language and Hearing Society to the Federal Speech-Language-Hearing Council.

bilíngue em uma clínica escola: estudo de caso. Res Soc Dev. 2022;11(16):e267111637700. http://doi.org/10.33448/rsd-v11i16.37700.

20. Pimentel-Souza MM, Lustosa, FG. Reflexões sobre a disciplina Libras na modalidade EaD: entre a obrigatoriedade da oferta e a ausência de diretrizes pedagógicas. Rev e-curric. 2023;21:1-16. http://doi.org/10.23925/1809-3876.2023v21e54895.

21. Starosky P, Ferreira CMP, Verzolla BLP, Roque FP, Bargut TCL, Carrilho MS. A modalidade visuo-espacial da linguagem como conteúdo transversal na formação em fonoaudiologia. In: Anais do 31º Congresso Brasileiro de Fonoaudiologia e 12º Congresso Internacional de Fonoaudiologia: fonoaudiologia sem fronteiras [Internet]. 2024 Out 3-6; Rio de Janeiro. Rio de Janeiro: SBFa.; 2024. p. 1130-2 [citado em 2024 Fev 21]. Disponível em: https://lp.sbfa.org.br/cbfa2023/anais/cbfa2023-anais.pdf.

22. Brasil. Conselho Nacional de Saúde. Resolução CNS 610, de 13 de dezembro de 2018. Resolve aprovar o Parecer Técnico nº 454/2018, que dispõe sobre as recomendações do Conselho Nacional de Saúde à proposta de Diretrizes Curriculares Nacionais do curso de graduação Bacharelado em Fonoaudiologia. Diário Oficial da União [Internet]; Brasília; 2019. Seção 1 [citado em 2024 Fev 21]. 82 p. Disponível em: https://conselho.saude.gov.br/resolucoes/2018/Reso610_Publicada.pdf.

23. Dalzico AMP. A disciplina de Libras no contexto da EaD. Revista Diálogos. [Internet]. 2017;4(1):78-89 [citado em 2024 Fev 8]. Disponível em: https://periodicoscientificos.ufmt.br/ojs/index.php/revdia/article/view/3898.

24. Conselho da Europa. Quadro europeu comum de referência para as línguas: aprendizagem, ensino, avaliação. Lisboa: ASA; 2001.

25. Leeson L, Bogaerde B, Rathmann C, Haug T. ProSign – Sign languages and the Common European Framework of Reference for Languages [Internet]. Strasbourg: Council of Europe Publishing; 2016 [citado em 2024 Fev 8]. Disponível em: https://www.ecml.at/Portals/1/mtp4/pro-sign/documents/Common-Reference-Level-Descriptors-EN.pdf.

26. Portal de Libras. Língua Brasileira de Sinais: Ensino de Libras como L2 [Internet]. 2022 [acesso em 20 out 2022]. Disponível em: https://app-hmg-libras.levantelab.com.br/lingua/ensino-libras-l2

27. American Speech-Language-Hearing Association. American sign language [Internet]. Rockville, MD: American Speech-Language-Hearing Association; 2019 [citado em 2024 Fev 8]. Disponível em: www.asha.org/policy/.

28. World Health Organization. Word Report on Hearing [Internet]. Geneva: WHO; 2021 [citado em 2024 Fev 8]. Disponível em: https://www.who.int/publications/i/item/9789240020481.

29. Nóbrega JD, Andrade AB, Pontes RJS, Bosi MLM, Machado MMT. Identidade surda e intervenções em saúde na perspectiva de uma comunidade usuária de língua de sinais. Ciênc Saúde Coletiva. 2012 Mar;17(3):671-9. http://doi.org/10.1590/S1413-81232012000300013.

30. Cavalcante PF, Stumpf MR. Diversidade surda na perspectiva sociocultural brasileira: uma análise qualitativa baseada em experiência. Peer Rev. 2023;5(2):186-205. http://doi.org/10.53660/prw.145.uni141.

Annex 1. Questionnaire applied to participants

(1)   What is your current occupation?

(2)   Name of Educational Institution/State:

(3)   About the Higher Education Institution: ( ) Federal Public ( ) State Public ( ) Municipal ( ) Private

(4)   How long does the phonoaudiologic program last? ( ) 8 semesters ( ) 9 semesters ( ) 10 semesters

(5)   Since when has the Libras course been offered in the phonoaudiologic program?

(6)   In the program curriculum, the Libras course is: ( ) Entirely distance learning ( ) Entirely in-person ( ) Hybrid, with distance and in-person activities

(7)   What is the total workload of the Libras course(s)   in the program?

(8)   Does the curriculum have, in addition to the mandatory Libras course, one or more optional courses? ( ) There is no optional course ( ) There is one optional course ( ) There is more than one optional course

(9)   The professor who teaches the course is: ( ) Non-deaf ( ) Deaf Libras professor ( ) Non-deaf Libras professor

(10) The mandatory Libras course is offered: ( ) By the Phonoaudiology department/program ( ) By another department/ program at the university

(10A) If you answered "from another department/program at the University" in the previous question, please state which one.

(11) In which term(s)/semester(s) of the program are the mandatory courses offered? 1st ( ) 2nd ( ) 3rd ( ) 4th ( ) 5th ( ) 6th ( ) 7th ( ) 8th ( ) 9th ( ) 10th ( )

(12) In addition to the Audiology program, which ones address phonoaudiologic practices with deaf/hearing impaired people in the curriculum?

(12A) Attach a file or insert a link to the syllabuses of the courses mentioned in the question above (if you do not have access to the syllabus, please explain in the answer to the question above).

(13) In addition to Audiology internships, which ones cover phonoaudiologic practices with deaf/hearing impaired people in the curriculum?

(13A) Same as 12A

(14) Are there subjects in the curriculum that address the use of Libras in phonoaudiologic practice? If so, please list which ones.

(14A) Same as 12A.

(15) How are deaf people's needs addressed across other courses and stages of the curriculum?

(15A) Same as 12A.

(16) List or insert links to outreach projects, academic leagues, and research projects within the scope of the program and/ or in collaboration with other undergraduate and postgraduate programs that relate to practices with deaf/hearing impaired people and/or the use of Libras.

(17) Is there anything you would like to comment on regarding these courses/internships in your program? Or is there any intention to change the courses/internships offered? Please explain.