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Teaching Brazilian Sign Language during medical students' training: the perception of future physicians

Ensino da Língua Brasileira de Sinais durante a graduação em Medicina: a percepção dos futuros médicos

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ABSTRACT

Purpose: To assess the perception of medical students regarding the discipline Brazilian Sign Language (Libras) during their academic training. **Methods:** Cross-sectional, descriptive and analytical study, including medical students from the city of Salvador, Bahia, over 18 years old. A virtual, semi-structured questionnaire was applied, containing sociodemographic, academic and Libras (communication, learning, importance in medical training and curriculum offer) aspects. **Results:** Of the 240 students evaluated, 82.9% do not know how to communicate through Libras, however 95.8% believe that the discipline is necessary in the medical curriculum. As for the curricular offer, students consider that it should be mandatory (55.2%) and in the face-to-face modality (75.7%). The main reasons for not taking the course were because it was optional (41.7%) and lack of time (33.3%). It was identified that women give more importance to this training (p=0.0013) and this perception is independent of age, administrative nature of the institution and ongoing academic cycle. **Conclusion:** Medical students have a favorable perception of the teaching of Libras in medical education. However, most of these students did not attend the discipline in their academic careers and believe that serving this public is challenging.

Keywords: People with hearing impairment; Medical education; Medical students; Medical care; Sign language

RESUMO

Objetivo: Avaliar a percepção dos estudantes de Medicina em relação à oferta da disciplina Língua Brasileira de Sinais (Libras) durante a sua formação acadêmica. **Métodos:** Estudo transversal, descritivo e analítico, incluindo estudantes de Medicina da cidade de Salvador, Bahia, maiores de 18 anos. Aplicou-se um questionário virtual, semiestruturado, contendo aspectos sociodemográficos, acadêmicos e sobre a Libras (comunicação, aprendizado, importância na formação médica e oferta curricular). **Resultados:** Dos 240 estudantes avaliados, 82,9% não sabe se comunicar através de Libras, entretanto 95,8% acreditam que a disciplina é necessária no currículo médico. Quanto à oferta curricular, os estudantes consideram que esta deveria ser obrigatória (55,2%) e na modalidade presencial (75,7%). Os principais motivos para não cursar a disciplina foram por esta ser optativa (41,7%) e por falta de tempo (33,3%). Identificou-se que as mulheres dão mais importância a esta formação (p=0,0013) e essa percepção independe de idade, natureza administrativa da instituição e ciclo acadêmico em curso. **Conclusão:** Os estudantes de Medicina têm uma percepção favorável ao ensino de Libras na educação médica. Entretanto, a maioria desses estudantes não cursou a disciplina em seus percursos acadêmicos e acredita ser desafiador o atendimento a este público.

Palavras-chave: Pessoas com deficiência auditiva; Educação médica; Estudantes de medicina; Atendimento médico; Línguas de sinais

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INTRODUCTION

It is estimated that in Brazil there are around 9.7 million people with hearing loss, among which 2.3 million have severe deficit[1,2]. Despite this expressive number, this part of the population faces serious problems in accessing health care, due to embarrassment in the service and difficulty of understanding on the part of health care teams[3,4]. Thus, the use of the Brazilian Sign Language (Libras), a modality of gestural-visual communication, can enable better living, working, education, and health conditions for deaf individuals[3].

To minimize the difficulty of communication between health professionals and deaf patients, in 2005 the Decree 5.626 was sanctioned, regulating Law No. 10.436, officially recognizing the Libras as a legal means of communication and expression, in addition to determining its compulsory nature in professional and higher education courses[5].

Despite this, there are still inconsistencies in communication between doctors and deaf patients, reflecting in a possible loss in the quality of care[6,7]. In this context, in the absence of training of health professionals, deaf people become dependent on the availability of interpreters and family members to provide minimum conditions of care[8]. The medical course should, therefore, train a professional to promote equity in the appropriate and efficient care of deaf people[9]. The training for the care of these patients prevents the violation of their rights and provides full knowledge of their diagnosis and the treatment that is being prescribed[6].

Therefore, for the training of future physicians aligned with this social context, it is recommended that, among the curricular contents of the educational projects of undergraduate medical courses, there is an approach to cross-cutting themes that involve knowledge, experiences and systematic reflections on human rights and people with disabilities and the teaching of Libras[9]. However, offering these contents optatively or with less importance may be a limiting factor, hindering the accessibility of deaf patients to health services.

Given this scenario, it is noticeable the need for the use of diverse methodologies for broad learning of medical students, including strategies for clear and succinct communication with all patients, going beyond the limits of functional language problems. In view of the above, this study aimed to evaluate the perception of medical students regarding the discipline Libras during their academic training.

METHODS

Study design

A cross-sectional, descriptive, and analytical study was conducted with medical students regularly enrolled in higher education institutions (HEI) in the city of Salvador, Bahia. The study sample was estimated in 237 students, considering a total population of 6,360 students, 95% reliability and 5% margin of error.

Data collection

The potential respondents were invited to participate in the research using the snowball method, a non-probability sampling technique from references of the same category[10].

The first participants were members of the Health Education Research Group (GPEDUCS), who recruited new respondents among their groups in messaging applications, composed of medical students from the city of Salvador, Bahia. From these groups, other students were invited to participate in the study by answering two assessment instruments: structured questionnaire, prepared specifically for the research, containing sociodemographic (gender and age) and academic aspects (administrative nature of the HEI [public or private] and academic cycle in progress); semi-structured questionnaire, adapted from Dias et al.[8], including nine quantitative questions about communication with deaf people through Libras, learning Libras and the importance of this knowledge for medical training. In addition, students could assign a score, on a scale of 0 to 10, for the importance of medical communication through Libras, being requested, in a qualitative way, a justification to support the assigned score.

The evaluation instruments were validated internally at GPEDUCS, aiming to eliminate ambiguities and verify the achievement of the proposed objectives.

Data analysis

The data were tabulated in Excel and analyzed using GraphPad Prism 8.0. For categorical data, the Chi-square or Fisher's Exact tests were used. For continuous data, t-Student comparison tests or analysis of variance (ANOVA) were performed. Values of $p<0.05$ were considered statistically significant.

For the qualitative analysis, the answers were organized considering the key concepts identified[8]. From these, three groupings were created: Group 1 - composed of students who considered it important and essential to know Libras (terms employed: inclusion, bond, adequate doctor-patient relationship, efficient communication, universal care); Group 2 - composed of students who considered it important, but not essential to know Libras (terms employed: feasible communication without Libras, deafness considered as a rare situation, use of alternative means of communication) and Group 3 - composed of students who did not consider it important to know Libras (terms employed: irrelevant, deafness considered as a rare situation, use of alternative means of communication, few trained doctors are sufficient)[8].

Ethical aspects

The present work is in line with Resolutions 466/12 and 510/16 of the National Health Council and was approved by the Research Ethics Committee of the "Instituto Mantenedor de Ensino Superior da Bahia" (CAAE 39399320.1.0000.5032). All participants signed the Informed Consent Form.

RESULTS

The perceptions of 240 medical students regularly enrolled in HEIs in the city of Salvador, Bahia, were evaluated. Among them, 68.8% were female, with a mean age of 23.9+9.2 years, predominantly enrolled in private HEIs (91.7%), distributed among the clinical cycle (52.1%), basic cycle (36.6%) and internship (11.3%) (Table 1).

It was observed that, although 95.8% of students believe partially or totally that the offer of Libras is necessary in the medical curriculum, most (82.9%) did not know how to communicate through Libras. Moreover, a large part of the respondents was unaware of the offering of the discipline Libras in the curriculum, and among those who had this knowledge, only 15.5% had already taken it. Of the 230 participants who responded that they believed (partially or totally) in the need to offer this subject, 55.2% indicated they preferred the offer as mandatory and 75.7% in the in-class modality (Table 2).

It was found that among the individuals who attended the discipline of Libras, the perception regarding the teaching was defined as "basic" (63.6%) (Table 2). Among the other responses obtained, there were sentences related to the lack of direction for medical practice, such as: "Very good, but little focused on medical practice" and "We learned the basic communication in Libras, but still insufficient to medical care. Regarding the students who did not take the course, most (41.7%) indicated the fact that it was optional, followed by lack of time (33.3%) (Table 2).

Students were asked to assign a score, on a scale of 0 to 10, for the importance of medical communication with deaf patients through Libras, and the overall average was 9.2+1.4 points. Among the justifications that justified the score achieved, can be cited phrases such as: "They are patients like all the others. If we do not have a good connection, our diagnosis and management may be impaired and we may not help our patient in the best way" and "The deaf are part of a significant portion of society, so if a doctor does not know how to communicate, a significant portion will not have an ideal care. Trying to write may not be effective, because many deaf people are not literate in Portuguese. Using interpreters is also problematic because their presence is not widespread in places of care, so the ideal would be for the doctor to have the ability to attend in Libras."

Also in this analysis, it was identified that female students (Figure 1A; p=0.0013) give more importance to the discipline of Libras and this perception was independent of age (Figure 1B; p=0.3188), administrative nature of the educational institution (Figure 1C; p=0.3721) and academic cycle in course (Figure 1D; p=0.1068).

For the participants who said they have ability to communicate with deaf people through Libras, most responded that they learned sign language by need for communication (39.0%), by the presence of the subject in school/college (22.0%), by interest/curiosity (19.5%), or because of acquaintances/relatives (19.5%). Regarding the place of learning, 51.2% studied in school/courses, 31.7% in college/university, and 9.8% learned through relatives/acquaintances (Table 3).

All respondents were asked what they would do when assisting a patient who used only Libras as a means of communication. Most reported that they would "ask a family member/interpreter to help" (44.8%), followed by "write/draw and/or mime" (38.9%), and "speak slowly so that the patient can lip read" (10.6%). Finally, 5.7% reported that they would use other methods, including the use of cell phone applications to facilitate communication (Table 3).

Table 1. Profile of medical students (n=240)

Characteristics	n	%
Gender		
Female	165	68.8
Male	75	31.2
Age (in years)		
Average (SD)	23.9 (9.2)	
Minimum	17	
Maximum	53	
Administrative nature of the HEI		
Private	220	91.7
Public	20	8.3
Academic Cycle		
Basic	88	36.6
Clinical	125	52.1
Internship	27	11.3

Subtitle: SD = standard deviation; HEI = Higher Education Institution; n = absolute frequency; % = relative frequency

DISCUSSION

The present study evaluated the perception of medical students about the provision of the discipline Libras during their academic training. It was shown that most respondents do not communicate properly with deaf people.

This reality, which is not exclusive to students, is configured as a global challenge[7] and has been demonstrated in several studies that analyzed the perception of doctors and deaf patients[11-13]. To minimize this deficit, countries such as France, United States, England, Spain, and Japan have been providing access to sign language interpreters through online or remote services[14]. Although this strategy can improve the patient-physician therapeutic relationship, its use brings challenges, such as lack of personal interaction, misinterpretation of the patient's concerns or responsiveness during an emergency[4], which confirms the importance of learning Libras by health professionals.

When evaluating these perceptions regarding communication in primary health care, it is noted that the lack of proper communication between the deaf and health professionals produces a negative impact on care. This aspect was demonstrated in a study that evaluated the medical care to deaf patients, showing that, for most of these patients, the doctor showed little or no mastery of Libras during the consultation. In addition, all patients said that doctors did not engage in trying to communicate using sign language[11].

Still in this context, and showing the deficit of medical training, it is documented that the presence of the companion helps in the process of communication with the doctor. In the absence of the accompanying person, patients report that their health complaint is not understood by the physician, and there is no clear understanding of the diagnosis, procedures performed, and recommendations/treatments proposed[11]. These data reveal the impact that the lack of communication can cause on the

Table 2. Perception of medical students regarding the subject Brazilian Sign Language

Questioning	n	%
Do you know how to communicate with hearing impaired people through Libras? (n=240)		
Yes, totally	2	0.8
Yes, partially	39	16.3
No	199	82.9
Does your educational institution offer the discipline Libras? (n=240)		
Yes	71	29.6
No	70	29.2
I don't know	99	41.2
Have you ever studied the subject Libras offered by your educational institution? (n=71)		
Yes	11	15.5
No	60	84.5
Do you believe it is necessary to offer the discipline Libras in the medical curriculum? (n=240)		
Yes, totally	199	82.9
Yes, partially	31	12.9
No	2	0.9
I don't know	8	3.3
How would you like the subject Libras to be offered in the medical curriculum? (n=230)		
Obligatory Discipline	127	55.2
Optional Discipline	87	37.8
Workshop	16	7.0
How would you like the teaching modality of the Libras discipline in the medical curriculum to be? (n=230)		
Remote	56	24.3
Presential	174	75.7
What is your perception about the teaching of the subject Libras offered by your HEI? (n=11)		
Basic course	7	63.6
Great/Constructive	2	18.2
Other	2	18.2
For what reason did you not take the Libras course offered by your HEI? (n=60)		
Optional subject	25	41.7
Lack of time	20	33.3
Few openings	6	10.0
Outros	9	15.0

Subtitle: n = absolute frequency; % = relative frequency; Libras = Brazilian Sign Language; HEI = Higher Education Institution

Table 3. Perception of medical students regarding their knowledge of Brazilian Sign Language

Questioning	n	%
What led you to learn Libras? (n=41)		
Need for communication	16	39.0
Presence of the discipline in school/college	9	22.0
Interest/curiosity	8	19.5
Because of acquaintances/family members	8	19.5
Where did you study and learn Libras? (n=41)		
College / Course	21	52.4
College/University	13	31.0
Relatives / Acquaintances	4	9.5
Other	3	7.1
How would you communicate with a hearing-impaired patient who uses only Libras? (n=406) *		
I would ask a relative/interpreter for help	182	44.8
Would write, draw and/or mime	158	38.9
I would speak slowly to allow lip reading	43	10.6
Other	23	5.7

*The student was allowed to choose more than one answer alternative

Subtitle: n = absolute frequency; % = relative frequency; Libras = Brazilian Sign Language

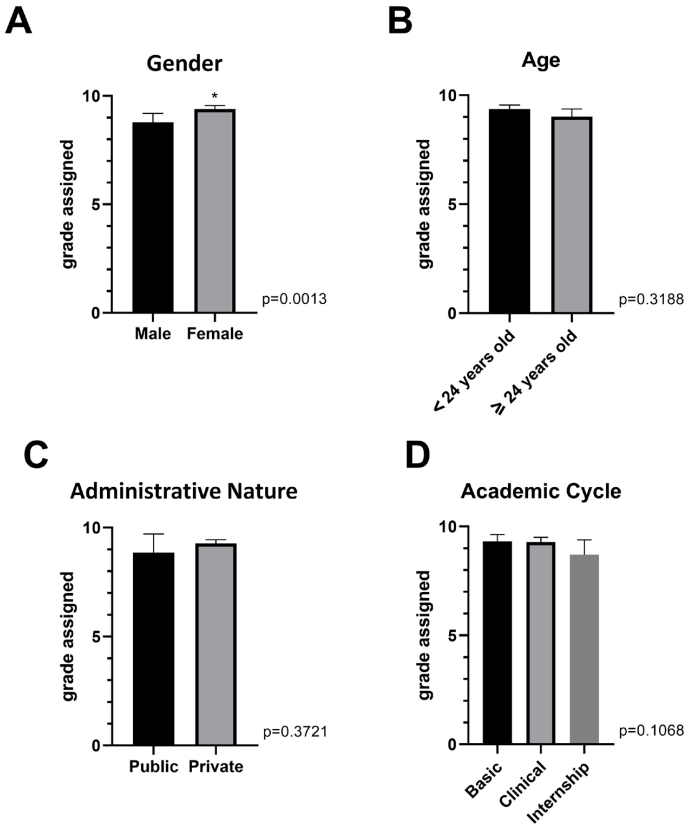

Figure 1. Perceptions on the importance of the discipline Libras during academic training, according to gender (A), age (B), administrative nature of the educational institution (C) and academic cycle (D)
*Data presented by mean and 95% confidence interval: ANOVA statistical test
Subtitle: HEI = Higher Education Institution

health of deaf individuals, ratifying the perceived importance of learning Libras by future physicians assessed in this study.

Likewise, this study showed that, for most students interviewed, offering the discipline Libras in the medical curriculum is necessary, considering that communication is an important tool in medical practice and acts to socially include the deaf community. According to this perception, the offer of a minicourse providing knowledge that allowed establishing appropriate relationships between doctor and deaf patient proved to be efficient in awakening the desire to expand the knowledge about Libras, contributing to minimize misinformation caused by existing linguistic and cultural barriers[15].

Despite identifying the importance of knowledge about Libras, only an insignificant number of respondents studied the subject, and, among them, there was a mostly unfavorable perception regarding the quality of learning. These perceptions raise the need for the implementation of innovative teaching methods that allow critical and reflective practices for the medical curriculum, going beyond the limits of purely technical language training[16]. In this sense, the use of pedagogical strategies, such as problem-based learning and simulations of care for deaf people, could allow the student to realize and understand the importance of the theme and, thus, more motivated, be continuously trained to reduce learning difficulties in Libras and improve their performance in the practical context[17].

It is supported the idea that medical schools should not train professionals who are unaware of the health needs of people, the forms of non-verbal communication, and the risks that these gaps can promote[18]. However, it is noted that the National Curriculum Guidelines for medical courses[9] do not have detailed guidelines on the objectives, content, methodology and workload of the discipline Libras, leaving the organization to each educational institution[12]. Thus, the lack of guidance, associated with these problems related to the learning of Libras, contributes to a possible superficial teaching of the subject and the low adherence of students, illustrated here by the extensive lack of knowledge about the offer of the subject and the low percentage of students who had already taken it.

Currently, the profile of professionals able to teach Libras in higher education indicates a high school degree or higher, with certification of proficiency in Libras[19]. However, these educations and required degrees do not guarantee training for teaching in the medical context[19]. Thus, it is important to reflect on the adoption of teaching-learning strategies, so that the discipline is conducted with a focus on achieving the key competencies required of a health professional committed to the care of deaf people.

If, on the one hand, the teaching is reported as deficient and subject to improvement, on the other hand, perhaps there is still a lack of student engagement in relation to learning. This was explicit in this study, which showed that most medical students did not take the discipline Libras because it is optional or simply because they did not know about it. In general, this training does not seem to attract the attention of students who are concerned only with the mandatory subjects for the completion of their respective courses[20].

Added to this fact is the limited workload assigned to the teaching of Libras in Brazilian HEIs. An analysis of 2,293 courses in the health area showed that 60.5% of them offer the subject with a workload of up to 40 hours, 39.0% between 41 and 80 hours, and only 0.5% allocate more than 80 hours for the teaching of Libras[12]. Therefore, the way in which the subject is taught, added to the low workload, may contribute to the deficient training of future physicians in relation to efficient communication with deaf patients.

Although it is undeniable the advancement of legislation and the movement towards social inclusion, the difficulty of health services to provide adequate care to deaf individuals is still a reality. It is noted that the deaf person is deprived of their rights to the extent that their first language is neglected, generating discontinuation of the search for health services for lack of interpreters or individuals who can mediate the efficient communication with the professional[21]. This scenario, possibly, will not change profoundly in the coming years, due to the majority absence of Libras in academic training and the deficient development of skills and abilities essential to health care for deaf people[13,16,22].

Consolidating this reflection, it is also important to highlight that the preferred communication method for the patient should be verified at the beginning of the appointment[23]. The patient's preferences must be respected, which may be associated with lip-reading, written language, the aid of interpreters or auxiliary devices for simultaneous translation of sign language[23,24], choices that also suffer interference from the level of literacy of this population[25]. In this sense, it is possible that, in fact, the guarantee of an effective communication is a greater problem than the one reported here, which reinforces the importance of an adequate preparation of physicians to meet the diverse communication needs of their patients.

This research had a potential limitation in the fact that the data were analyzed from the perspective of the students' perceptions, without, effectively, evaluating the methodologies used in the teaching of Libras, or the quality of training for the care of deaf patients. This fact may lead to the development of longitudinal studies, as well as broaden the discussion and debate on the subject. On the other hand, despite the regionality of the sample, it was observed that the respondents' profile was in accordance with the current sociodemographic panorama of medical students in the country, which shows a recent phenomenon of feminization of the student body and the privatization of medical education[26,27]. Additionally, we obtained a representative sample of five different teaching institutions from the capital of one of the states with the highest representation of vacancies in medical courses in Brazil, a fact that reinforces the idea that the results reported here can be extrapolated nationwide.

CONCLUSION

Medical students, especially women, have a favorable perception of the teaching of Libras in medical education, considering it important in the curriculum. Paradoxically, most of these students report not knowing how to communicate through Libras and not having taken the discipline in their academic career. In addition, students report an unfavorable perception about their training for health care for deaf patients. Considering the health needs of this significant portion of the population, it is expected that this study arouses the reflection of the main actors of medical education on the training in Libras to thus contribute to a more humanized and effective doctor-patient relationship.

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