



Public health curricular changes in speech-language-hearing therapist training: Analysis of an undergraduate program in Northeastern Brazil

Mudanças curriculares no ensino da Saúde Coletiva na graduação de fonoaudiólogos: análise de um curso da região nordeste

Cambios curriculares en la enseñanza de la Salud Pública en la graduación de fonoaudiología: análisis de un curso de la región nordeste

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Abstract

Introduction: It is essential to understand how public health teaching has been included in speech-language-hearing curricula to address the challenges of training professionals for the Unified Health System. **Objective:** To analyze curricular changes in public health teaching in a speech-language-hearing

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undergraduate program in Northeastern Brazil from its creation to the present. **Method:** Data were collected with documentary analysis of pedagogical frameworks, internship plans, and lesson plans in a speech-language-hearing program from its creation to the present. **Results:** The results demonstrate that changes, though slight ones, have taken place over the years in the public health teaching in the speech-language-hearing program approached in this study. The main change was the increase in public health curricular components, advancing from one component alone halfway through the program to a horizontal approach with components offered from the first to the last year of the program. **Conclusion:** Despite the gaps, the speech-language-hearing undergraduate program is progressively shifting from a hospital-centered model toward the comprehensive approach valued by the Unified Health System and expected in the Speech-Language-Hearing Curricular Guidelines.

Keywords: Speech-Language Pathology and Audiology; Higher education; Curriculum; Public Health.

Resumo

Introdução: Compreender o modo como o ensino da Saúde Coletiva (SC) tem sido inserido nos currículos da fonoaudiologia é fundamental para o entendimento dos desafios da formação de profissionais para o Sistema Único de Saúde (SUS). **Objetivo:** Analisar as mudanças curriculares no ensino da SC ocorridas em um curso de Fonoaudiologia na região nordeste, desde sua criação ao momento atual. **Método:** A coleta dos dados compreendeu a análise documental dos Projetos Políticos Pedagógicos, planos de estágio e planos de ensino do Curso de graduação em Fonoaudiologia, desde sua criação até o momento atual. **Resultados:** Os resultados referem que houve mudanças, mesmo que mínimas, na inserção do ensino da SC na fonoaudiologia no curso estudado com o decorrer dos anos. A principal delas foi a ampliação dos componentes curriculares que abordavam o Campo da SC, que avançaram de um componente isolado na metade do curso, para um eixo horizontal, composto de componentes que vão do primeiro ao último ano do curso. **Conclusão:** Apesar das lacunas foi possível observar o caminho que a graduação em fonoaudiologia tem seguido, abandonando aos poucos o modelo hospital cêntrico e se aproximando da integralidade prezada pelo SUS e do que é preconizado pelas Diretrizes Curriculares de Fonoaudiologia.

Palavras-chave: Fonoaudiologia; Educação Superior; Currículo; Saúde Coletiva.

Resumen

Introducción: Comprender cómo se ha insertado la enseñanza de la Salud Pública (SP) en los planes de estudio de logopedia es fundamental para comprender los desafíos de la formación de profesionales para el Sistema Único de Salud (SUS). **Objetivo:** Analizar los cambios curriculares en la educación de la SP que se han producido en un curso de Patología del Habla y Lenguaje en la noreste región, desde su creación hasta el momento actual. **Método:** La recolección de datos comprendió análisis documental de Proyectos Políticos Pedagógicos, planes de pasantía y planes de enseñanza de la Carrera de Licenciatura en Patología del Habla y Lenguaje, desde su creación hasta la actualidad. **Resultados:** Los resultados indican que hubo cambios, aunque mínimos, en la inserción de la enseñanza de SP en logopedia en el curso estudiado a lo largo de los años. El principal fue la ampliación de los componentes curriculares que abordaban el Campo de la SP, que pasó de un componente aislado en la mitad del curso, a un eje horizontal, compuesto por componentes que van desde el primer hasta el último año del curso. **Conclusión:** A pesar de las brechas, se pudo observar el camino que ha seguido la graduación en logopedia, abandonando paulatinamente el modelo hospitalario y acercándose a la integralidad valorada por el SUS y lo recomendado por las Directrices Curriculares Nacionales de Fonoaudiología.

Palabras clave: Fonoaudiología; Educación Superior; Curriculum; Salud Pública.

Introduction

Undergraduate health sciences programs in Brazil have gone through countless changes over the years, driven by discussions, disputes, and dialogue in various political and social movements¹.

These changes have accompanied all processes in the Unified Health System (SUS, in Portuguese) and are essential for health professionals to meet the population's true health needs. Thus, their training model had to be restructured by changing the curricula to meet the demands and principles of SUS³. These changes were possible thanks to the development and implementation of the National Curricular Guidelines (NCG)⁴.

The NCG determine that required internships in health programs be carried out in various parts of the health network, where healthcare strategies focus on meeting people's actual needs. Hence, they ensure that learning is based on practical experiences with the profession, professors, health network, and community^{5,6}.

The institution of the NCG led the Speech-Language-Hearing (SLH) Sciences to adjust to the needs perceived at SUS⁷, as they define competencies and skills aimed at what is expected in this System^{8,9}. Hence, SLH therapists must have generalist and humanized training that enables them to work in a wide range of responsibilities in their occupation, in the various healthcare networks. Therefore, the future professionals' training process must be redirected⁴.

The NCG establish that the SLH therapists' training must address some general competencies – particularly healthcare, as health professionals must be apt to carry out both individual and public health prevention, promotion, protection, and rehabilitation actions. The other general competencies are decision-making, communication, leadership, administration, management, and continuing education⁵.

Public health is a field of knowledge acknowledged not only for its theory but also its relationship with various areas – social and human sciences, epidemiology, politics, and planning. Hence, the inclusion of this course in the curricula must specifically and explicitly indicate its interdisciplinary characteristic and objectives to avoid difficulties in the teaching/learning process¹⁰.

Therefore, understanding how public health has been addressed in undergraduate curricula is essential to understand the challenges of training professionals at (and for) SUS¹¹. Given the above and the scarcity of research on public health teaching in SLH undergraduate programs in Brazil, it is necessary to analyze the curricular changes that have taken place in public health teaching during SLH training.

Method

This qualitative case study was based on a documentary analysis regarding an SLH undergraduate program in the state of Alagoas, Brazil. Due to its nature, the study was exempted from approval by the Research Ethics Committee, as established by Resolution 510/2016 concerning human research.

The sample comprised pedagogical frameworks (PF) and other academic documents, such as lesson plans and required mentored internship plans.

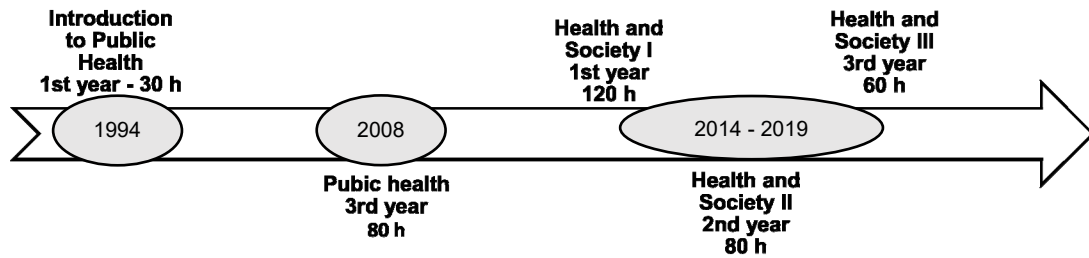
The study obtained data on the development of curricular components, course load, how often it is offered (once or twice a year), and at what moment of the program.

All analyzed documents were provided in a digital format. Collected data were tabulated into a Microsoft Excel[®] spreadsheet for later detailed analysis – which aimed to identify the changes in public health teaching that have taken place over the years.

Results

The program in question was created in 1994 and authorized in 1996 at a public university focused on the Health Sciences. It currently receives 30 students a year, requiring a total course load of 4,600 hours and at least 4 years for completion¹².

PF analysis encompassed data from 1994 (when the program was created) to 2019 (current document). The changes that took place over the years are shown in the timeline in Figure 1 for better analysis. The curricular components of public health that have been identified are shown in detail in Table 1.



Source: Developed by the authors, based on the pedagogical frameworks of the Speech-Language-Hearing program, 2021.

Figure 1. Timeline with the changes in public health theoretical-practical components in the speech-language-hearing curricula between 1994 and 2019 in the program addressed in this study.

Table 1. Distribution of public health theoretical and/or theoretical-practical components in the speech-language-hearing curricula between 1994 and 2019 in the program addressed in this study

| Year | Curricular component | Course load | Frequency (once or twice a year) | Moment in the program when the course is offered | |
|------|-------------------------------|------------------------|----------------------------------|--|----------------------|
| 1994 | INTRODUCTION TO PUBLIC HEALTH | 30 h | Twice a year | 1 st year | |
| 2008 | PUBLIC HEALTH | 80 h | Once a year | 3 rd year | |
| 2014 | THEME: HEALTH AND SOCIETY | HEALTH AND SOCIETY I | 120 h | Twice a year | 1 st year |
| 2016 | | HEALTH AND SOCIETY II | 80 h | Twice a year | 2 nd year |
| 2019 | | HEALTH AND SOCIETY III | 60 h | Twice a year | 3 rd year |

Source: Developed by the authors, based on the pedagogical frameworks of the Speech-Language-Hearing program, 2021.

Changes in public health teaching

The first noticeable change was in the name of the curricular components. Then, their course load, frequency (once or twice a year), and period (moment in the program) also changed. Besides this information, the PF also presented the syllabus of the curricular components – i.e., a brief, explicit, concise, and objective summary of the content, procedures, and basic concepts that are approached in the courses.

The syllabi showed that the 1994 curricular component named “Introduction to Public Health” focused on studying the concepts of health, disease, health status, and health professionals’ work with the population.

Since 2008, the component named “Public Health” shifted its focus toward topics on the greater areas of public health.

From 2014 to 2019, after “Themes on Health and Society” was developed, the focus broadened to aspects that interfered with the health/disease process to better understand individual and community health and the historical and political process

that helped form and incorporate SUS (Health and Society I).

Surveillance studies were also introduced as public health instruments – more specifically, epidemiology (Health and Society II) –, health/disease intervention, and their applicability in planning, organization, and assessment of health practices.

Lastly, Health and Society III addresses SLH interprofessional and cooperative practices in primary healthcare, aiming at health planning and promotion, injury prevention, and communication disorder diagnosis and rehabilitation at the Extended Centers for Family Health and Basic Care and other healthcare networks.

None of the PF included the course contents, methodologies, or assessment methods of any of the curricular components. However, these elements are essential to analyze public health teaching in SLH programs.

The absence of such elements hindered the detailed identification of theoretical content, methodologies, and assessment methods used in public health teaching.

The analysis of the required public health mentored internship showed that the course load and moment when it was offered were not explicitly informed. The internship is generally presented

in the PF, addressing the different areas of SLH training. Only the integrated public health internships are specified, with a course load of 80 hours offered twice a year.

Table 2. Distribution of public health components related to the required monitored internship in the speech-language-hearing curricula between 1994 and 2019 in the program addressed in this stud.

| Year | Curricular component | Course load | Frequency (once or twice a year) | Moment in the program when the course is offered |
|--------------|---|-------------|----------------------------------|--|
| 1994 | MONITORED INTERNSHIP* | 500 h | Once a year | 4 th year |
| 2008 | MONITORED INTERNSHIP * | 480 h | Twice a year | 4 th year |
| | MONITORED INTERNSHIP* | 450 h | Twice a year | 5 th year |
| 2014 2016 | REQUIRED MONITORED INTERNSHIP I (Public Health) | 80 h | Twice a year | 3 rd year |
| 2019 | INTEGRATED PUBLIC HEALTH INTERNSHIP | 80 h | Twice a year | 4 th year |

(*) Note: The course loads presented in these curricular components correspond to the total course load of the required monitored internship. Public health is included in this course load, but it was not possible to determine its specific course load. Source: Developed by the authors, based on the pedagogical frameworks of the Speech-Language-Hearing program, 2021.

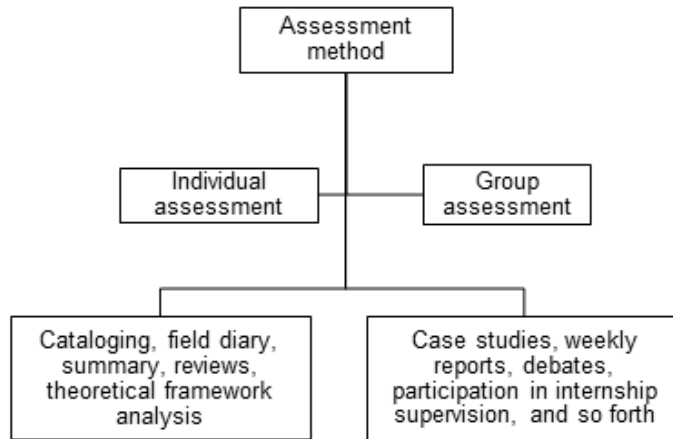
Internship plans and public health teaching

The analysis of mentored internship plans showed that the teaching methods used in practical curricula correspond to practical classes, undergraduate research, targeted study discussion, roundtable/group debates, texts/articles, videos, films, and so forth. These methods are present in 2015, 2019, and 2020 internship plans.

The 2020 Integrated Public Health Internship Plan also presents the teaching method, with intern-

ship protocols, contents, field diary, integrated activity planning, integrated records, final internship report, and scientific integration seminar.

The internship's course contents are approached in mentored practices at primary health-care units. Hence, an integrated assessment of health course actions is planned and implemented considering the local public policies and health system location and organization, as well as the integrated assessment and discussion of activities developed based on SUS principles and guidelines and local health service organization.



Source: Developed by the authors, based on the pedagogical frameworks of the Speech-Language-Hearing program, 2021.

Figure 2. Visual representation of the assessment method of the Integrated Public Health Internship Plan (2020)

Teaching method

The methodology used in mid-program public health teaching plans was based on theoretical and practical/demonstrative classes, targeted studies, lectures, seminars, field research, and group discussions. In the last years of the program, the teaching methods encompassed lectures and interactive classes, involving students in discussions and dynamics on the topics, scientific text reading and discussions, seminars, and technical visits to municipal and/or state health departments regarding public health SLH practices.

Assessment method

The assessment method used to have four progressive evaluations. Then, it evolved into a system with targeted studies, individual written assessments (tests), and/or individual and/or group academic activities. These can include scientific article reading, analysis, and review; text analysis and cataloging; reflective portfolio; seminars and group studies (papers developed individually, in pairs, or groups); and technical visit reports based on field practices.

Discussion

The promulgation of the NCG in 2002 helped higher education institutions address countless challenges in training health professionals¹³.

Besides the NCG, various training policies proposed by the Federal Ministry of Health and the

Ministry of Education were essential to the debate on health education and work administration. These include the 2002 National Incentive Program for Curricular Changes in the Medicine Programs (Promed); the 2003 “SUS training and development policy: Paths for continuing health education”; the National Health Training Redirecting Program (PRÓ-Saúde), modalities I and II; and the Health Practical Training Program (PET-Saúde) – which has already had many editions with different topics and remains active².

The Integrated Public Health Internship was created in 2011, with the initiative of SLH, physical, and occupational therapy professors involved in public health internships, which used to be carried out separately in primary healthcare. The development of this internship was one of the factors that led to institutional changes and the creation in 2014 of the Themes on Health and Society in the undergraduate programs at the university approached in this study².

A study addressed the implementation of a new SLH curriculum in São Paulo, Brazil, and pointed out similarities between curricula before and after the NCG¹⁴. It presents information since 2004, while the present study encompassed data on PF changes since 2008. Both studies point out PF approaches to public health from the first year of the undergraduate program since the NCG were created, in contrast with approaches before 2002, which occurred only in the first year of the programs.



Another study analyzed six SLH programs in the city of São Paulo, Brazil, and reported that the public health components were offered in the second and third years of the undergraduate programs, except for one institution, which offered them since the first year¹⁵. This information corroborates what was found in the post-2014 curricula analyzed in this research. The said study presents course loads in these components ranging from 30 to 80 hours, while the results in the present research indicate greater such course loads, ranging from 60 to 120 hours.

The researchers also point out data on public health internships. Again, most universities corroborate the results in this research, with internships offered since the third year of the undergraduate program, whereas just one offered them only in the fourth year.

A study conducted in public schools/universities of Ceará analyzed Nursing PF and pointed out the absence of assessment methodologies, which is similar to what was found in the present study. Only one out of all institutions analyzed by the authors described the teaching/learning process in detail, while another presented a limited assessment. None of the others presented this information¹⁶.

The said study indicates challenges in implementing public health teaching in other health programs. Educational institutions are responsible for their commitment to training professionals for SUS, focusing on its principles, guidelines, and needs.

A piece of research in undergraduate SLH students at public universities in Northeastern Brazil identified that few of them knew or had heard about the program NCG – the document that establishes how curricula are constructed, particularly regarding the profile of professionals who work at SUS¹. It also identified the students' little participation in constructing and discussing their program curricula.

The 2002 NCG for SLH programs are still valid. However, in 2018 the National Health Council approved a draft that proposed changes in its text. The changes in the 2018 text¹⁷ are mainly focused on the students' profile, including collaborative competencies for interprofessional teamwork.

One of the points addressed in the text approved by the National Health Council is that the PF of SLH programs must be constructed with the participation of the Core Structuring Faculty, municipal/state SUS administrators, professors, and

students from the perspective of and adjustment to the social context and the integration of curricular components within and between programs¹⁷.

On the other hand, some authors point out that traditional practices still predominate in SLH teaching in Brazil¹, with professor-centered lectures, fragmented curriculum organization, and difficulties innovating teaching resources^{1,18}. This is observed in a study that approached seven public universities in Northeastern Brazil and showed that only one of the seven public SLH programs had PF and curriculum guided by active methodologies, while traditional methodologies still predominated in the other courses¹⁹.

Parallel to this predominating scenario, the data surveyed in the present research show an effort (at least in the existing public health documents) to use innovative teaching resources, including, for instance, active and participative methodologies, aimed at actual contexts.

The inclusion of active modalities was also observed in the abovementioned research that assessed the new SLH curricula in São Paulo¹⁴. They enable the interaction of basic courses and vocational activities carried out with seminars, monitored visits, and clinical case observation.

Active methodologies have been an alternative to traditional teaching methods, providing students with an active learning role to construct their knowledge with a critical and reflexive approach mediated by the professor, whose teaching is focused on transmitting information^{20,21}. Implementing innovations while curricula are reformulated draws professionals nearer to public health, helping them understand that health practices are not limited to technical SLH measures²¹.

The previously mentioned study conducted in the Northeast revealed some difficulties in SLH undergraduate public health teaching, especially in integrating knowledge. Only three of the six programs whose PF is organized into courses present public health longitudinally, in almost all semesters¹⁹. Such a finding corroborates the results in the present research, in that public health components have been offered in almost all semesters since 2014.

Nonetheless, having longitudinal public health components is not enough. Rather, it is necessary to advance into more participative methodologies, moving students toward the center of the teaching/

learning process and characterizing professors as mediators and facilitators.

The results obtained in the present study demonstrate that public health has always been present – though limited at first – in the SLH training at the institution where it was conducted.

Public health curricular components must be taught throughout the training of future SLH therapists, as SUS has increasingly been the setting where they begin their careers in the last years^{22,23}. This has been taking place in all parts of the healthcare network, not only in hospitals and specialized attention (which is usually emphasized in undergraduate classes) but also in primary healthcare (which requires professionals able to meet the needs of most of the population).

Future SLH therapists must learn (while still in their undergraduate studies) to work considering the socioeconomic reality of most of the population, who depend on SUS alone. This can be achieved through public health debates and local practices with SUS patients from the beginning of the program^{24,25}.

SLH therapists have varied possibilities in their work with primary healthcare, encompassing common, specific, and collaborative professional activities²⁵. Therefore, higher education institutions must understand the importance of providing both theoretical content and practical experiences in public health, going beyond the hospital and outpatient care, which is well-consolidated in most programs.

Conclusion

The research demonstrated that changes have taken place in public health teaching at the SLH program addressed in this study. The name of curricular components was changed, their course load increased, and a longitudinal theme was created in 2014 with components that are offered from the first to the last year of the program.

The SLH program addressed in this study has been working to have its documents comply with the NCG in the process of training professionals for SUS.

There is still much work to be done. Further studies on the topic are essential to follow up and analyze this process, making it possible to identify and recognize flaws and achievements and perceive and record advancements.

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