

SUS Technical Schools in Brazil: historical challenges, (dis)mobilization and underutilization¹

*As Escolas Técnicas do SUS no Brasil:
desafios históricos, (des) mobilização e subutilização*

*Escuelas técnicas del SUS en Brasil:
desafíos históricos, (des)movilización y subutilización*

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Abstract: In the Brazilian context, the Technical Schools of the Unified Health System (ETSUS) are configured as spaces for social and professional transformation, consolidating themselves as relevant environments for the promotion of critical, democratic, participatory, and inclusive training within the SUS. Considering the relevance of these schools, this article aims to analyze publications on ETSUS from 2015 to 2024 using the Theses and Dissertations database of the Coordination for the Improvement of Higher Education Personnel (CAPES). The survey identified 21 dissertations, which were systematized using Bardin's (2007) Content Analysis technique. Four analytical categories were identified: insufficient and weakened pedagogical training and performance; underutilization of ETSUS due to public-private partnerships and low funding; the leading role of ETSUS in humanized and qualified training for the SUS; and weaknesses in the planning, monitoring, and evaluation of the Permanent Education Policy. The results indicate a critical scenario regarding the operation, performance, and management of the ETSUS (Schools of Public Health Technology), demonstrating that, throughout their history, these institutions have been underutilized and weakened. The discontinuity of public policies and budgetary constraints were the most evident problems.

Keywords: Capes; Dissertations; Continuing Education in Health; Retsus; Underutilization.

Resumo: No contexto brasileiro, as Escolas Técnicas do SUS (ETSUS) configuram-se como espaços de transformação social e profissional, consolidando-se como ambientes relevantes para a promoção de uma formação crítica, democrática, participativa e inclusiva no âmbito do SUS. Considerando a relevância dessas escolas, este artigo tem como objetivo analisar as publicações sobre as ETSUS, no período de 2015 a 2024 a partir do banco de Teses e Dissertações da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). O levantamento identificou 21 dissertações, as quais foram sistematizadas à luz da técnica de Análise de Conteúdo de Bardin (2007). Identificou-se 4 (quatro) categorias analíticas: formação e atuação pedagógica insuficiente e fragilizada; subutilização das ETSUS em decorrência das

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parcerias público-privadas e do baixo financiamento; protagonismo das ETSUS na formação humanizada e qualificada para o SUS; e fragilidades no planejamento, monitoramento e avaliação da Política de Educação Permanente. Os resultados indicam um cenário crítico de operacionalização, atuação e gestão das ETSUS, demonstrando que, ao longo da trajetória, essas instituições foram subutilizadas e enfraquecidas. A descontinuidade de políticas públicas e as restrições orçamentárias foram os problemas mais evidenciados.

Palavras-chaves: Capes; Dissertações; Educação Permanente em Saúde; Retsus; Subutilização.

Resumo: En el contexto brasileño, las Escuelas Técnicas del Sistema Único de Salud (ETSUS) se configuran como espacios de transformación social y profesional, consolidándose como entornos relevantes para la promoción de una formación crítica, democrática, participativa e inclusiva dentro del SUS. Dada la relevancia de estas escuelas, este artículo analiza las publicaciones sobre ETSUS desde 2015 hasta 2024 utilizando la base de datos de Tesis y Disertaciones de la Coordinación de Perfeccionamiento del Personal de Nivel Superior (CAPES). La encuesta identificó 21 disertaciones, las cuales fueron sistematizadas mediante la técnica de Análisis de Contenido de Bardin (2007). Se identificaron cuatro categorías analíticas: formación y desempeño pedagógico insuficientes y debilitados; subutilización de las ETSUS debido a alianzas público-privadas y bajos fondos; el rol protagónico de las ETSUS en la formación humanizada y calificada para el SUS; y debilidades en la planificación, el seguimiento y la evaluación de la Política Permanente de Educación. Los resultados indican un escenario crítico en cuanto al funcionamiento, el desempeño y la gestión de las ETSUS (Escuelas de Tecnología de la Salud Pública), demostrando que, a lo largo de su historia, estas instituciones han sido subutilizadas y debilitadas. La discontinuidad de las políticas públicas y las restricciones presupuestarias fueron los problemas más evidentes.

Palabras clave: Capes; Disertaciones; Educación Continua en Salud; Retsus; Subutilización.

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Introduction

This article concerns a literature review study aimed at analyzing Brazilian scientific publications on the Network of Technical Schools of the SUS (RETSUS) in Brazil, at the *Stricto Sensu* postgraduate level. Created by the federal government to qualify workers of the Unified Health System (SUS) in the context of Professional and Technological Education, RETSUS strengthens Permanent Health Education, a fundamental policy for the SUS. Thus, the Technical Schools of the SUS, called ETSUS, present themselves as spaces for social and professional transformation, consolidating themselves as a powerful place for critical, democratic, participatory and inclusive training in and for the SUS (Pereira; Ramos, 2006; Borges et al., 2012).

One of the "differentiating factors" of these SUS schools is the adoption of an integrated curriculum, built and articulated considering the dynamics of work processes. In this sense, based

on critical and problematizing reflection, the educational process is sustained through the integration of teaching with service in order to promote the integration of knowledge considering the principles of intersectorality and interdisciplinarity (Silva; Duarte, 2015).

However, despite the advances that have historically been made with the implementation of a specific professional training network for the SUS, there is a confrontation of historical challenges for its continuity, mainly due to the instabilities in the political field that have moved the Brazilian scenario in recent years, highlighting the reconfigurations in the priorities of public policies and budgetary restrictions; the intensification of the dissemination of misinformation, especially through the so-called "fake news", which impact the social perception of the Unified Health System and health training policies; and, more recently, the effects of the COVID-19 pandemic, which strained the health system and redirected institutional efforts, affecting the continuity and financing of training initiatives.

Considering this panorama, this study started from questions that permeate the work processes of these technical schools, namely: Are there studies that evaluate the impact of the training actions of these schools? What theoretical-methodological conceptions are present in their pedagogical projects? What historical, political and structural issues are presented in the context of the actions of the SUS Technical Schools? What themes are explored in depth by researchers when the object of study is the SUS Technical Schools?

Taking these preliminary questions into account, the general objective we outlined was to understand, through a bibliographic analysis, what kind of advances, perspectives, approaches and challenges are mentioned in theses and dissertations, considering the period from 2015 to 2024, in the context of the actions of the Schools that make up the RETSUS.

The historical context of the SUS Technical School Network in Brazil: the locus of professionalization for technical-level workers.

ETSUS "suffer from a certain identity crisis, which oscillates between that of a center for training human resources and that of a school" Ramos (2012, p.61)

The Network of Technical Schools of the SUS (RETSUS), institutionalized by Ordinance No. 2,651 of 2017, is configured as a national articulation coordinated by the General Coordination of Education in Health Care Networks (CGATES), bringing together 42 public educational institutions. This network aims to promote the technical training of workers in the Unified Health System, taking the SUS itself as a privileged locus of learning and as a reference for the qualification of health practices.

Known as "function-schools," these institutions are characterized by the decentralization of training activities, shifting the educational process to the workplace of SUS professionals. This configuration favors the adoption of a more flexible pedagogical model, articulated with the dynamics of work in health and developed in partnership with SUS managers. From a methodological point of view, they are based on the problematization of real situations of daily work, promoting a reflective dialogue with the continuing education teams of health units. Izabel dos Santos, in referring to the SUS schools as "function-based schools," provides an important characterization of the intended operational dynamics.

This school-function should be located where the service is. Instead of the building, it should be the service. Why the teacher? This process is like fixing a moving train. That is, the student doesn't leave work, the professional doesn't leave work, and you have to keep the service running. The service can't stop. So what? The way to go is to get the person from the service. First, because if that's the case, if the student's work is going to be the production of the unit, they will have to do what the unit needs and experience the real work process. So the students learn there, together with the teacher who is also a good professional in that process, because otherwise it's no use (Santos, 2010, p.7).

Although the movement in favor of continuing education in health began to gain strength in the 1990s, it was in the early 2000s that RETSUS began to structure itself in a more institutionalized way. RETSUS was created through Ordinance No. 1298, of November 28, 2000, later updated by Ordinance No. 2970, of November 25, 2009, and by Ordinance No. 2651, of October 10, 2017, with the following objectives:

I - to share information and knowledge; II - to seek solutions to problems of common interest; III - to disseminate methodologies and other technological resources aimed at improving teaching, research and technical cooperation activities; IV - to stimulate professional health education policies, primarily for SUS workers; and V - to promote the articulation of professional health education institutions in the country, aiming to expand their capacity to act in line with the needs and demands of the SUS (Brazil, 2017).

The historical and political movement of the Network of Technical Schools of the SUS (RETSUS) is strictly linked to the construction of the Unified Health System (SUS) and the urgency of qualifying health professionals to serve the Brazilian population more efficiently and humanely. An example of this "urgency" was the implementation of Public Policies for Professional Education by the Ministry of Health, such as the Large-Scale Training Program (PLE), the Professionalization Project for Workers in the Nursing Area (Profae) in 2002; and the Program for Training Mid-Level Health Professionals (Profaps). Regarding the PLE, Castro (2008) emphasizes that:

It arose from the need to address two serious problems faced by health services and the education system: the inadequacy of the latter in integrating theory and practice; and the inability of the former to promote personnel training programs that went beyond the usual fragmented and sporadic training proposals (Castro, 2008, p.158).

The PLE reproduced a neoliberal logic of intensifying "on-the-job training," under the aegis of "necessary and objective" knowledge. This logic establishes linear relationships between the worker's practice and the labor "market," fundamentally based on a technocratic and antagonistic thinking about labor relations. The discourses of the "practitioner" are still very present in the actions of Professional and Technological Education (EPT), mediated by the reductionist and immediate logic carried out by education entrepreneurs in this teaching modality.

In the same perspective as the Large-Scale program, Profae presents itself as a "solution" for nursing education. According to Brasil (2008), this program acted directly in training for the Nursing area, with Free Courses (qualification) and Mid-Level Technicians. An important point to be highlighted in this program was the institutionalization of public-private partnerships to "deal with" the complexity and volume of technical training necessary to meet the demand of the SUS network. From another perspective, Profaps stands out as a policy with a broader scope, as indicated in Ordinance GM/MS No. 3,189.

The goal of Profaps is to qualify and/or enable 745,435 workers in vocational education courses for the health sector, already employed or to be employed in the SUS (Brazilian Unified Health System), over a period of eight years. This project proposal is situated within a context where the availability of courses in this area is scarce, particularly in regions like the North and Northeast, precisely where the demand for qualified human resources is greatest. The purpose of Profaps is to contribute to the improvement of Primary and Specialized Care, training people in the following areas: Radiology Technician; Biodiagnostics Technician with qualifications in: (i) Clinical Pathology, (ii) Cytotechnics, and (iii) Hemotherapy; Equipment Maintenance Technician; Dental Hygiene Technician – THD/Dental Office Assistant; Dental Prosthesis Technician; Community Health Agent – Initial Training; Technician in Environmental, Epidemiological and Sanitary Surveillance; Nursing Technician: Technical Specialization for Caregivers of the Elderly. Technical Specialization for Nursing Care in Dialysis (Brazil, 2014).

It is possible to recognize that through federal government programs such as PLE, Profae, and Profaps, even with their potential and challenges, they played a strategic role in consolidating initiatives aimed at technical training within the Unified Health System (SUS). These programs highlighted the relevance of establishing a network of schools oriented towards the demands of the SUS, contributing to addressing structural challenges such as the insufficient technical training in Nursing. Furthermore, they favored the institutionalization of a network-based training logic, articulated with the needs of the health system, expanding

the qualification of workers and strengthening the integration between teaching and service.

The current and geographical panorama of these SUS schools can be seen in Table 1 below:

Table 1: List of schools that make up RETSUS

State	Name of SUS Technical Schools
Acre	Maria Moreira da Rocha Technical School of Health (ETSUS-AC)
Alagoas	Prof. Valéria Hora Technical School of Health (ETSAL)
Amapá	Graziela Reis de Souza Center for Professional Education (CEP-AP)
Amazonas	Francisca Saavedra Public Health Nurse Professional Training School (ETSUS-AM)
Bahia	Prof. Jorge Novis Technical School of Health Training (EFTS)
Ceará	Visconde de Sabóia Family Health Training School (EFSFVS)
Ceará	Iguatu School of Public Health (ESP Iguatu)
Ceará	Ceará School of Public Health "Paulo Marcelo Martins Rodrigues" (ESP-CE)
Ceará	Cariri SUS Technical School (CE)
Espírito Santo	Prof. Ângela Maria Campos da Silva Technical School of Health Professional Training (ETSUS Vitória)
Espírito Santo	Health Education and Training Center of SES/ES (NUEFS)
Goiás	Health Professional Education Center of the Goiás School of Public Health Cândido Santiago
Goiás	Technical School of Planaltina Professional Education Center (CEP-ETP)
Brasília	Brasília Technical School of Health (ETESB)
Maranhão	Dr. ^a Maria Nazareth Ramos da Neiva SUS Technical School (ETSUS-MA)
Mato Grosso	Mato Grosso State School of Public Health (ESP-MT)
Mato Grosso do Sul	Prof. Ena de Araújo Galvão SUS Technical School (ETSUS-MS)
Minas Gerais	Minas Gerais State School of Public Health (ESP-MG)
Minas Gerais	Technical School of Health of the State University of Montes Claros (ETSUS Unimontes)
Pará	Dr. Manuel Ayres SUS Technical School (ETSUS-PA)
Paraíba	Human Resources Training Center of Paraíba (CEFOP-RH-PB)
Paraná	Caetano Munhoz da Rocha Human Resources Training Center (CEFOP-RH-PR)
Pernambuco	Pernambuco School of Public Health Government (ESP-PE)
Piauí	Monsenhor José Luiz Barbosa Cortez State Center for Professional Education in Health (ETSUS-PI)
Rio de Janeiro	Nurse Izabel dos Santos Technical School of Health Training (ETIS)
Rio de Janeiro	Joaquim Venâncio Polytechnic School of Health (EPSJV)
Rio Grande do Norte	Dr. Manoel da Costa Souza Health Services Training Center (CEFOPE-RN)
Rio Grande do Sul	Rio Grande do Sul State School of Professional Health Education (ETSUS-RS)
Rondônia	Technical-Professional Health Education Center of Rondônia (CETAS)
Roraima	SUS Technical School of Health in Roraima (ETSUS-RR)
Santa Catarina	Health Training School (EFOS)
Santa Catarina	Blumenau SUS Technical School (ETSUS Blumenau)
São Paulo	Human Resources Training Center for SUS-SP in Araraquara
São Paulo	Health Personnel Training Center (CEFOP Franco da Rocha)
São Paulo	Health Personnel Training Center of Assis (CEFOP Assis)
São Paulo	Health Personnel Training Center of São Paulo (CEFOP-SP)
São Paulo	Mid-Level Health Human Resources Training Center of Pariqueira-Açu (CEFOPH Pariqueira-Açu)
São Paulo	Municipal School of Health (EMS-SP)
Sergipe	Permanent Health Education Center (CEPS-SE)
Sergipe	SUS Technical School of Health in Sergipe (ETSUS-SE)
Tocantins	Tocantins SUS Technical School (ETSUS-TO)

Source: Authors' elaboration, based on information from the official Electronic Portal of the Ministry of Health.

As can be seen, there are SUS (Brazilian Unified Health System) technical schools in all Brazilian states, some with a "dual identity," also operating as public health schools. It is worth noting the existence of SUS schools linked to federal institutions and state universities. To be recognized by the Secretariat of Labor Management and Education in Health (SGTES), new schools can be accredited through public calls for proposals.

Methodological process of the research

As a methodological procedure, we conducted a literature review to analyze theses and dissertations available in the database of the Coordination for the Improvement of Higher Education Personnel (CAPES), from 2015 to 2024. The selection of works focused on relevance and alignment with the central theme of this study, seeking to identify the main contributions, trends, and gaps in the area. Considering the appropriation of Bardin's (2007) Content Analysis technique, we used the following relationship with the study:

- a) **Pre-analysis phase:** we conducted a methodological selection of theses and dissertations in the Capes database using the descriptor "SUS Technical School". Twenty-one studies were identified within the time frame of 2015 to 2024. While more works appeared during the initial search, after further reading and matching them to the intended theme, we identified only 21 productions.
- b) **Exploration of the Material:** the abstracts, final considerations, and, when necessary, the research results were read, since in some studies the results were not well described in the abstract. In this stage, we performed the coding and categorization.
- c) **Treatment of results:** an analysis of the categories identified in the previous step was carried out.

Using Bardin's (2007) Content Analysis Technique, it was possible to uncover the themes and political and pedagogical scenarios that permeate the discussions of the productions about the SUS Technical Schools, as well as to identify categories.

An Overview of Theses and Dissertations on the Technical Schools of the Brazilian Unified Health System (SUS)

The following table provides an overview of academic publications on the Technical Schools of the Brazilian Unified Health System (SUS). It was observed that all publications are Master's dissertations, and the majority are concentrated in the Southeast region of Brazil,

with particular emphasis on the Oswaldo Cruz educational institution, as can be seen in the publications listed in Table 2.

Table 2: Academic Productions on (2015-2024)

Authors	Title of the Study	Year	University/Institution	Region
Valéria Cristina Cardoso Adriano	Distance education in ETSUS: an analysis of the pedagogical training of tutor teachers	2021	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Eryka Nadja Marques Rufino	Teacher education: analysis of pedagogical practices of teachers at the Tocantins SUS School Dr. Gismar Gomes	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Ana Cristina Cerruti	Technical School of the Unified Health System of São Paulo: 17 years of history – “walking a tightrope without a safety net”	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Claudia Vilela de Souza Lange	Institutional trajectory of the Technical School of Health of the Unified Health System Dr. Luiz Eduardo Caminha (1995–2018) and the development of professional education in Blumenau-SC	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Emmanuele de Jesus Balata Sousa Alves	Permanent health education in Maranhão: a historical analysis	2021	Federal University of Rio Grande do Norte	Northeast
Marcilene dos Santos Costa	Health Secretariat of the State of Amapá and the SUS Technical School: pathways and challenges in the technical training of health workers	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Teresinha Clarete Testoni Nogueira	Professional education: reflections on the educational evaluation process at ETSUS Blumenau – Dr. Luiz Eduardo Caminha	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Fernanda Carla Faustino da Silva	The School of Public Health of Rio Grande do Norte: a study on teacher education for professional health education	2023	Federal Institute of Education, Science and Technology of Rio Grande do Norte	Northeast
Maria do Carmo Ribas dos Santos	The configuration of Technical Schools of the Unified Health System: ETSUS Assis – a trajectory aimed at strengthening health	2020	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Rosângela Queiroz de Lima da Silva	Mid-level technical training in oral health integrated with	2019	Oswaldo Cruz Foundation / Joaquim Venâncio	Southeast

	Youth and Adult Education (EJA) at ETSUS Acre		Polytechnic School of Health	
Diógenes Farias Gomes	How are ETSUS expressed in the policy of technical health education in Ceará?	2018	Federal University of Ceará	Northeast
Maria de Fátima Campos	Qualification of professionals at ETSUS Blumenau in mental health and its contribution to network-based and multidisciplinary teamwork	2019	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Janaína Andrade Duarte	Institutional self-evaluation of an ETSUS: reflecting and re-signifying political-pedagogical practices	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Milaide Clarice Lopes Rodrigues Fonseca	Training of nursing technicians in public institutions in Goiás: a documentary analysis	2022	Federal University of Goiás	Midwest
Renata Alexandrina Mendonça Mineiro Pereira Braga	Teaching-service-community integration at ETSUS-BA: analysis of the pedagogical proposal from the perspective of graduates	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Luciana Freitas dos Santos	The presence of Paulo Freire's liberating pedagogy in the training of teachers in technical health education at ETSUS/RR	2018	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Iara Saldanha de Lucena	Technical Course in Health Surveillance at ETSUS/BA: dialogue with guidelines established by the Ministry of Health	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Maria Cordélia Lobato de Jesus	Professional health education: a study on pedagogical training for facilitating teachers at ETSUS Maranhão	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Francélia Maria Almeida Sales	Professional training of community health agents in Ceará: course plan and curricular frameworks of ETSUS-CE	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Dulciane Martins Vasconcelos Barbosa	Teacher training for graduate professionals at ETSUS-PI in the context of technical professional health education	2016	Oswaldo Cruz Foundation / Joaquim Venâncio Polytechnic School of Health	Southeast
Vânia Alessandra Feres	Technical schools of the Unified Heal	2024	Paula Souza State Center for Technological Education	Southeast

Source: Authors' elaboration, based on a survey conducted in the Capes Theses and Dissertations Database (2015-2024). Available at: <https://catalogodeteses.capes.gov.br/catalogo-teses/>

One of the possible justifications for the predominant output of the Oswaldo Cruz Foundation is due to the partnership established with the Ministry of Health for the selection of staff for the SUS Technical Schools, in two specific calls for proposals in 2014 and 2017, according to information obtained from the institution's official website.⁴.

Complementing this geographical analysis of the research, we conducted a study of the keywords present in the abstracts of the papers. As a selection criterion and for a better understanding of the themes explored by the researchers, we mention below, in Table 3, only the words cited more than once.

Table 3: Keywords present in the abstracts of theses and dissertations

Keywords	Frequency
Professional Health Education	15
ETSUS	8
Teacher Education	6
Public Health Policies	6
SUS (Unified Health System)	5
Mid-Level Technical Professional Education	4
Permanent Health Education	3
Health Education	2
Educational Policies	2
Schools of Public Health	2
Evaluation	2

Source: Authors' elaboration based on the mapped productions (2015-2024).

The considerable number of mentions of terms such as "Professional Education in Health," "ETSUS," and "Teacher Training" characterizes the focus of these themes in the research, indicating that researchers have directed their analyses to a thematic sequence, namely: "Teacher training focused on professional education in health within the context of SUS Technical Schools." Below, in Table 4, we present the research techniques most frequently used in the selected studies.

⁴ For more information, visit: <https://www.epsjv.fiocruz.br/linha-do-tempo/inicio-do-mestrado-ret-sus> and https://www.sigafiocruz.br/arquivos/ss/documentos/editais/65_03-10%20-%20Resultado%20da%20prova%20escrita%20-%20geral.pdf. Accessed March 12, 2026.

Table 4: Research techniques most commonly used in academic productions.

Research Techniques	Number of Occurrences
Document Analysis	14
Content Analysis	11
Interviews	6
Literature Review	3
Focus Group	3
Questionnaire	2
Case Study	2
Conversation Circle	1
Discursive Textual Analysis	1

Source: Authors' elaboration based on mapped productions (2015-2024).

It is noticeable that document analysis, content analysis, and interviews were the most frequently used data collection and analysis techniques in this research. This is due to the fact that these techniques allow for multiple perspectives, based on analytical categories regarding the institutionalization process of public policies, the planning, monitoring, and evaluation of educational activities in schools, as well as the perceptions of managers and student-workers about professional training in the context of teaching-service integration.

In the content analysis substage of academic research, it was possible to structure the results and discussion section based on the categories presented in Table 5.

Table 5: Categories identified from theses and dissertations

Categories	Authors
Insufficient and fragile pedagogical training and practice	Adriano (2021), Rufino (2019), Gomes (2018), Santos (2018), Barbosa (2016)
Underutilization of ETSUS due to public-private partnerships and low funding	Cerruti (2019), Gomes (2018), Uchiyama (2018)
The protagonism of ETSUS in providing humanized and qualified training for the SUS	Vilange (2019), Santos (2020), Silva (2023), Silva (2019), Campos (2019)
Weaknesses in the planning, monitoring, and evaluation of the Permanent Health Education Policy	Alves (2023)

Source: Authors' elaboration based on the mapped productions (2015-2024).

After systematizing the categories identified in the mapping of theses and dissertations (Table 5), the content analysis stage was carried out, seeking to understand the recurring core meanings in the analyzed productions and the interpretative refinement of the categories, now understood in their analytical dimension.

Category “Insufficient and precarious pedagogical training and performance”

The category “Insufficient and precarious pedagogical training and performance” addresses the limitations and challenges faced by teachers in ETSUS (Technical Schools of the Unified Health System), especially regarding pedagogical training and temporary employment contracts. Based on the analyses of Adriano (2021), Rufino (2019), and Gomes (2018), it is possible to identify weaknesses in both initial training and the continuity of pedagogical proposals, highlighting the need for a more structured and critical approach in the educational process.

Adriano (2021), when analyzing the pedagogical training offered by ETSUS to teachers/tutors who teach distance learning courses, found positive points such as the search for more critical and problematizing methodologies. However, he highlighted in some reports, weaknesses in the teacher training process, mainly in the specific procedures of the Distance Education modality and in institutional links.

Rufino (2019) also highlights an important element in this process that involves teacher training in ETSUS. In his master's dissertation, he pointed out important pedagogical training actions, with features for a more qualified process, although there is still a need to consolidate the institutionalization and the periodic, structured and systematic offering of these actions, based on broad and critical pedagogical approaches.

Gomes (2018) notes that the temporary employment of teachers compromises the training of these student-workers of the SUS. One of these weaknesses is the discontinuity of pedagogical proposals based on the teaching-learning concepts present in the Political Pedagogical Projects (PPPs) of schools, culminating in the prevalence of ideas from the traditional model.

Category “Underutilization of ETSUS due to public-private partnerships and low funding”

The category “Underutilization of SUS Schools due to public-private partnerships and low funding” presents one of the biggest “critical issues” in the context of the operation of SUS Schools: the limitation of resources and the growing presence of the private sector in the SUS. Cerruti (2019), Gomes (2018) and Uchiyama (2018) emphasize that the lack of adequate funding and the valorization of private institutions in a neoliberal context contribute to the precariousness of educational policies.

Cerruti (2019) makes an important point in her master's dissertation, when analyzing the trajectory of an SUS School located in the state of São Paulo. For the researcher, the participation of the private sector in the SUS in the municipality of São Paulo generated a change in the profile of the workforce. In addition, she highlights one of these effects, the precariousness of workers. This precariousness is, in a way, influenced by the underutilization of ETSUS for technical training, and its more predominant use in courses called professional qualification or "free" courses, as they are generally characterized.

Gomes (2018) and Uchiyama (2018) consider that one of the problems of this underutilization would be the insufficient funding for all actions developed by the SUS, and the valuation of private institutions compatible with a neoliberal state model, and in this sense, it is highlighted that the ETSUS are mostly linked to the state health secretariats (except for ETSUS Acre and ETSUS Amazonas, linked to the state education network), causing some Permanent Health Education actions to become secondary to the detriment of Health Care actions, that is, actions aimed at preventing diseases with greater epidemiological impact are prioritized, to the detriment of structural investments in the training of workers. In this context, the encouragement of professional training becomes secondary, subordinated to a hegemonic logic that distances itself from the principles advocated by the Health Reform (Gomes, 2018). A narrative from one of the participants in Gomes's (2018) research, which engages with the idea of intentional underfunding, is quite significant:

We end up seeing a somewhat murky scenario ahead, considering that there are other interests involved, and in my view, these interests belong to those who financed the entry of those who are in power today, which is why so many resources are transferred to the private sector (Gomes, 2018, p.126).

On the other hand, the federal network itself, and in this case, the financial incentives from the Secretariat of Labor Management and Health Education (SGTES), linked to the Ministry of Health, are almost non-existent. Consulting official data from the Ministry of Health, the only technical training program financed by the Federal Government is "Health with Agents," executed by the Federal University of Rio Grande do Sul, with little involvement/protagonism from the SUS Technical Schools, even though they have the expertise to execute them, especially because they know the complexity of their territories.

Two other programs indicated on the official page of the Ministry of Health are the Training of Technicians in Orthotics and Prosthetics (TOP) and the Professional Qualification for Indigenous Health Agents (AIS) and Indigenous Sanitation Agents (AISAN), both already completed, and without any information on possible new classes.

It seems to us that this is an old problem. One of the largest federal incentive programs, PROFAB, had minimal participation from the SUS (Brazilian Unified Health System) school network, equivalent, according to studies by Cêa, Reis, and Conterno (2007), to only 10%. Historically, these schools have been building "disruptive" theoretical, methodological, and epistemological foundations regarding the teaching-learning process and, through a collective effort of this SUS community of practice, breaking with a dichotomous and neoliberal vision, especially with a professional training historically based on technicality⁵. However, this vision always remains marginalized and unused due to "pedagogical commodification." Now, if the SUS schools know the dynamics and training needs of their territories, why aren't they the protagonists of these training processes? Why are they left "out" of actions in which they possess expertise?

One example was the implementation of a large technical training program for Community Health Agents and Endemic Disease Control Agents, still in effect in 2025, called "Health with Agents," carried out by a single Public Educational Institution. An excerpt from the Public Note⁶ issued by the managers of the SUS Technical Schools, which we will present below, clarifies this issue:

Over the last two decades, RETSUS, with more than 40 schools, has built expertise in training mid-level and technical workers, and has been a key player in the development of national guidelines for both Community Health Agent (ACS) and Endemic Disease Control Agent (ACE) training. The work of the SUS Schools is focused on this need and specificity of the (public) health sector, taking health practices as a reference. This means incorporating into the educational process the health needs of workers and the epidemiological profile of the population as a production of disease and health (...) Such needs are incompatible with the proposal presented by DEGES/MS, whose essential foundation is a rapid and generalist offer that treats workers and health needs from urban, rural and metropolitan areas, from different regions, with different levels of education and the most diverse possible specificities as equal. It is a "Trojan horse" for the Community Health Agent (ACS), who longs for the completion of the technical training initiated by the SUS Schools, and a deception for municipal managers, who aim for the qualification of their workers and improvement of health care for their population (Fiocruz, 2020, p.4).

⁵ Frigotto (2011, p. 23) argues that neoliberal policies are based on the logic of human capital and overlook the ontological and historical dimensions of work and education. For the author, human capital is rooted in a social relationship founded on the expropriation and exploitation of the working class by those who privately own the means and instruments of production. In this relationship, workers are compelled to sell their physical and intellectual labor power in order to survive.

⁶ Available at: EPSJV/Fiocruz Technical Statement – Programa Saúde com Agente. Accessed March 12, 2026.

The above report from the technical note prepared by the managers of the SUS Schools clearly shows the existing dichotomies within the public sector itself. The focus of these schools is on meeting the specific needs of the public health sector, with a curriculum that takes into account the epidemiological profile of the population and the conditions of the workers. However, due to "urgency," priority was given to rapid and generalist training, without considering regional inequalities and the specific needs of different contexts.

Category “The leading role of ETSUS in humanized and qualified training for the SUS”

The category “The leading role of ETSUS in humanized and qualified training for the SUS” addresses the fundamental role of the SUS Technical Schools in training workers for the Unified Health System, highlighting their historical contribution and the recognition of their expertise.

Vilange (2019), when analyzing the trajectory of ETSUS Blumenau in its institutional, political, and educational aspects, in the period from 1956 to 2018, found different contributions to the development of professional training for SUS workers. In the period from 1956 to 2018, 34 courses were identified as being made available to the SUS, at the levels of professional qualification, mid-level technician, and technical specialization, reaching 37,156 trained workers. However, despite the leading role and strong historical performance of the School, at the time of publication of her dissertation, Vilange (2019) makes a significant statement:

Regarding future paths for strengthening the ETSUS (Schools of Technical and Scientific Education in the Unified Health System), unfortunately, the current moment is one of uncertainty, as there is an observed increase in demand for health and education, and the current national political and economic context, with its uncertainties and underfunding of various areas (in dissonance with the public interest), directly affects health and education. This lack of support, from a funding perspective, becomes a challenge for the ETSUS to continue offering training to SUS (Unified Health System) employees, as well as to cope with and survive political uncertainties, considering the funding allocated to maintaining their work processes (Vilange, 2019, p. 88).

It is possible to highlight from Vilange (2019) that despite the recognition and leading role of ETSUS (Technical Schools of the Unified Health System) in the execution of the policy of continuing education in health and the demand for technical training for SUS (Unified Health System) workers, they face significant challenges due to underfunding, political and economic uncertainties.

Nogueira (2019) pointed out in his research, potentialities and difficulties in evaluative practice, noting that the evaluation present in the guiding documents of the research school is based

on a critical-emancipatory conception and a notion of human competence in health care. However, although the documents advocate this conception, there is a challenge to be faced: that of overcoming the pedagogy of competencies, given that many terms and concepts present in the documents are not clear to those who implement them. From this perspective, it is essential to point out that "the training of health workers, far beyond being oriented by and for health services, and being integrated into them, must be oriented by and for human emancipation, and must be integrated into the contradictory totality of social reality" (Pereira; Ramos, 2006, p.109).

Category “Weaknesses in the planning, monitoring and evaluation of the Continuing Education Policy”

In the category “Weaknesses in the planning, monitoring and evaluation of the Permanent Education Policy”, the focus is on management processes in the function: planning, monitoring and evaluating. The authors report that despite the efforts made by the SUS Schools, there is still a limited process of pedagogical and administrative management.

Alves (2023) demonstrated, when researching the service data of a Public Health School, the large number of workers served, reaching 48,593 enrollments in the period from 2012 to 2022, in all segments of Professional and Technological Education at the secondary level; however, there are issues that need to be reconsidered, such as the management of the Permanent Education Policy, which includes the stages of planning, incorporation of pedagogical concepts, conceptual alignment, execution of actions and evaluation. According to the researcher, it is necessary to reclaim Continuing Education in Health as a structuring axis of SUS management to transform the reality in the spaces of care production, with internal and external, collaborative and transversal dialogues.

Costa's work (2019) highlighted another gap in this process involving the organization and management of the processes of the SUS Technical Schools. It was observed that although there are structured plans, such as the State Health Plan (PES) and the Annual Health Programming (PAS), actions aimed at professional training and qualification never fully achieve their objectives due to a lack of political interest and the absence of effective collaboration between different institutions.

In this way, the categories constructed from the content analysis allowed us to identify a set of weaknesses and potentialities that permeate the scientific production on the SUS Technical Schools, highlighting both structural limitations and possibilities for strengthening these institutions in the field of health training. With the presentation and discussion of the analytical categories concluded, we move on to constructing an

interpretative synthesis, which proposes an understanding of these productions in light of the notion of "collective of thought," articulating the empirical findings with the theoretical and conceptual bases that underpin the study.

A Collective of Thought on Scientific Productions about the Technical Schools of the Brazilian Unified Health System (SUS)

Moving towards the end and discussing with Fleck (2010), we can associate two important concepts with the object we are currently exploring: style and collective of thought. By style of thought, Fleck (2010) conceptualizes it as a way of understanding and acting, and collective of thought is a group of researchers and intellectuals who participate in and defend a particular style of thought. It is possible to mention, based on the data from the Theses and Dissertations, that there is a style of critical thought in the actions of Continuing Education in Health, which articulates the work processes in Health to the world of work, highlighting the contradictions, the precariousness and the impact caused by market and neoliberal ideas in health actions. This style of thought is formed by a group of researchers, which in Fleck's view constitutes a collective of thought, who "defend" the ideas of the critical style of thought.

It was possible to perceive this critical perspective related to the work processes of the ETSUS (Technological Schools of the Unified Health System), quite evident in institutions such as the Oswaldo Cruz Foundation, and with researchers such as Marise Ramos, Ricardo Ceccim, and Ena Galvão, who emphasize the limited conceptions of a "pedagogy of training," which we could call a "Mechanistic Style of Thinking":

The criticism leveled at on-the-job training, highlighting its limitations in relation to the formation of awareness and the reduction of actions performed by health workers to mere mechanization, goes against the idea of training as a mere instrument to make them only able to do, pragmatic and immediate, without a critical, reflective dimension that could be useful in improving the services themselves and in serving the population (Pereira 2002, p. 41).

On the other hand, the style of thinking that we now call "critical" is characterized by actions that overcome the dichotomous and fragmented vision. In this sense, we have two styles of thinking: one conservative and mechanistic; and another that prioritizes the broad and comprehensive training of workers, aiming at critical awareness and action. Ceccim and Ferla (2008) describe a concept of Continuing Education in Health, which we consider to be part of this way of seeing, acting, and understanding this training. For these authors, the actions of Continuing Education in Health are based on:

1) articulation between education, work and citizenship; 2) the link between training, sectoral management, health care and social participation; 3) the construction of the SUS Network as a space for professional education; 4) the recognition of local and regional bases as political-territorial units where teaching and service structures should cooperate in the formulation of strategies for teaching, as well as for the growth of sectoral management, the qualification of the organization of care in care pathways, the strengthening of social control and investment in intersectorality (Ceccin; Ferla, 2008, p.164).

From this perspective, Continuing Education in Health, by integrating these principles, breaks with the traditional and disciplinary logic of training, promoting continuous learning contextualized to the needs of health workers and services.

Final Considerations

Based on what has been presented so far, it has become evident that there has been a depletion of technical actions funded by the federal government for the SUS technical schools; it was possible to highlight the low scientific production specifically for this network, and it became clear that the historical challenges are still traversed by neglected and uncertain elements, which make this network invisible and dismantle it.

One of the indications that makes us think about the invisibility given to the SUS Technical Schools is the low production evidenced in these studies, and regionally, these invisibilities are fueled by considerable regional asymmetries. It is possible to establish that the (de)mobilization of the SUS schools is strictly related to neoliberal government policies.

Finally, it is worth highlighting that figures such as Isabel dos Santos and Ena Galvão played a decisive role in the creation and consolidation of the SUS Technical Schools. They were pioneers in articulating and strengthening the idea of a network of technical schools that could not only qualify professionals, but also ensure that this qualification was accessible to all regions of the country. However, what we perceive is an intentional underutilization, with the aim of weakening and "erasing" this important network for improving health services for the Brazilian population. What we see is that there are no more calls for proposals to expand the network, which already demonstrates a lack of intention for continuity, strongly evidencing actions to demobilize, erase and/or underutilize this network that we consider necessary and powerful for improving continuing health education actions in our country.

References

- ADRIANO, Valéria Cristina Cardoso. *Educação a distância nas ETSUS: um olhar sobre a capacitação pedagógica dos professores tutores*. Dissertação (Mestrado) – Fundação Oswaldo Cruz, Escola Politécnica de Saúde Joaquim Venâncio, Programa de Pós-graduação em Educação Profissional em Saúde, 2021.
- ALVES, Emmanuele de Jesus Balata Sousa. *Educação permanente em saúde no maranhão: uma análise histórica*. Dissertação (mestrado) - Universidade Federal do Rio Grande do Norte, Centro de Ciências da Saúde, Pós-Graduação em Gestão, Trabalho, Educação e Saúde. Natal, RN, 2023.
- BARBOSA, Dulciane Martins Vasconcelos, *A formação docente para profissionais graduados realizada pela Escola Técnica do SUS do Estado do Piauí (ETSUS-PI) no contexto da educação profissional técnica em saúde*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, 2016.
- BARDIN, L. *Análise de conteúdo*. Portugal: Lisboa, 2007.
- BORGES, Fabiano Tonaco et al. *Escolas Técnicas do SUS (ETSUS) no Brasil: regulação da integração ensino serviço e sustentabilidade administrativa*. Ciênc. saúde coletiva, Rio de Janeiro, v. 17, n. 4, p. 977-987, abr. 2012.
- BRAGA, Renata Alexandrina Mendonça Mineiro Pereira. *Técnica a integração ensino-serviço-comunidade na ETSUS-BA: análise da proposta pedagógica na perspectiva dos egressos*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2016.
- BRASIL. *PROFAE*, Profissionalização dos Trabalhadores da Área da Enfermagem – Brasília, 2006.
- BRASIL. Ministério da Saúde. Portal da Saúde. *Programas e Projetos. Profaps*, fev.2014. Disponível em: <http://portalsaude.saude.gov.br/index.php/oministerio/principal/secretarias/319-sgtes/gestao-da-educacao/9595-profaps>. Acesso em: 15 03 25.
- BRASIL. Ministério da Saúde. *Portaria n.º 2.651, de 10 de outubro de 2017*. Dispõe sobre a Rede de Escolas Técnicas do Sistema Único de Saúde (RET-SUS). Diário Oficial da União: seção 1, Brasília, DF, n. 198, p. 34, 16 out. 2017.
- CAMPOS, Maria de Fátima *A qualificação de profissionais da ETSUS Blumenau 'Dr. Luiz Eduardo Caminha' na área de saúde mental e a contribuição para o desenvolvimento do trabalho em rede e em equipe multidisciplinar*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.
- CASTRO, J. L. *Protagonismo Silencioso: a presença da OPAS na formação de recursos humanos em saúde no Brasil*, Natal: Observatório RH NESC/UFRN; Ministério da Saúde; OPAS/OMS, 2008.

CÊA, G.S.S; REIS, L.F; CONTERNO, S. PROFABE e lógica neoliberal: estreitas relações. *Trab Educ Saúde*, v 5, n 1, 2007

CECCIN, Ricardo Burg; FERLA, Alcindo Antônio. *Dicionário da Educação Profissional em saúde - Educação Permanente em Saúde*. 2ª ed. re. ampl - Rio de Janeiro: EPSJV, 2008. pp. 162 a 168.

CERRUTI, Ana Cristina. *Escola Técnica do Sistema Único de Saúde do município de São Paulo, 17 anos de história: "na corda bamba e sem sombrinha"*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.

COSTA, Marcilene dos Santos. *Secretaria de Saúde do Estado do Amapá e a Escola Técnica do SUS: percursos e percalços na formação técnica dos trabalhadores em saúde*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.

DUARTE, Janaína Andrade. *Autoavaliação institucional de uma ETSUS: refletindo e ressignificando as práticas político-pedagógicas*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, 2016.

FERES, Vania Alessandra. *Escolas técnicas do sistema único de saúde no estado de São Paulo: história e atuação na educação profissional*. Dissertação (Mestrado Profissional em Gestão e Desenvolvimento da Educação Profissional) – Centro Estadual de Educação Tecnológica Paula Souza, 2024.

FLECK, Ludwick. *Gênese e desenvolvimento de um fato científico*. Belo Horizonte: Fabrefactum, 2010.

FONSECA, Milaide Clarice Lopes Rodrigues. *Formação do técnico em Enfermagem em instituições públicas no estado de Goiás: análise documental*. Dissertação (Mestrado em Ensino da Saúde). Universidade Federal de Goiás, 2022.

FRIGOTTO, Gaudêncio. Novos fetiches mercantis da pseudo-teoria do capital humano no contexto do capitalismo tardio. In: ANDRADE, Juarez de; PAIVA, Lauriana G. de (org.). *As políticas públicas para a educação no Brasil contemporâneo: limites e contradições*. Juiz de Fora: Editora UFJF, 2011. p. 17-35.

FUNDAÇÃO OSWALDO CRUZ (Fiocruz). Escola Politécnica de Saúde Joaquim Venâncio. *Manifestação técnica sobre o Programa Saúde com Agente*. Rio de Janeiro: Fiocruz/EPSJV, 2020. Disponível em: https://www.epsjv.fiocruz.br/sites/default/files/files/2020_Manifesta%C3%A7%C3%A3o%20T%C3%A9cnica%20Programa%20Sa%C3%BAde%20com%20Agente.pdf. Acesso em: 12 mar. 2026.

GOMES, Diógenes Farias. *Como se expressam as ETSUS na política de a formação técnica em saúde do Ceará?* Dissertação (Mestrado em Saúde da Família). Universidade Federal do Ceará, 2018.

JESUS, Maria Cordélia Lobato de. *Educação profissional em saúde: um estudo sobre a capacitação pedagógica para docentes facilitadores na Escola Técnica do SUS do Maranhão – ETSUSMA*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, 2016.

LUCENA, Iara Saldanha de. *Curso Técnico de Vigilância em Saúde da ETSUSBA: diálogo com as diretrizes e orientações preconizadas pelo Ministério da Saúde*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, 2016.

NOGUEIRA, Teresinha Clarete Testoni. *Educação profissional: reflexões sobre o processo de avaliação educacional na ETSUS Blumenau – Dr. Luiz Eduardo Caminha*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.

PEREIRA, Isabel Brasil. *A formação profissional em serviço no cenário do Sistema Único de Saúde – Programa de Pós-Graduados em Educação: História Política e Sociedade*. PUC. São Paulo. 2002

PEREIRA, Isabel Brasil; RAMOS, Marise Nogueira. *Educação profissional em saúde*. Rio de Janeiro: Editora Fiocruz, 2006.

RAMOS, Marise. *Trabalho, educação e correntes pedagógicas no Brasil: um estudo a partir da formação dos trabalhadores técnicos da saúde*. 2.ed. Rio de Janeiro: EPSJV, UFRJ, 2012

RUFINO, Eryka Nadja Marques *Formação docente: análise das práticas pedagógicas dos docentes da Escola Tocantinense do Sistema Único de Saúde Dr. Gisamar Gomes*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.

SALES, Francélia Maria Almeida. *Processo de formação profissional do agente comunitário de saúde no contexto cearense: plano de curso e referenciais curriculares da ETSUS-CE*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, 2016.

SANTOS, Izabel dos. Entrevista. *Revista RET-SUS*, Rio de Janeiro, set. 2010. Disponível em: RET-SUS – Entrevista com Izabel dos Santos. Acesso em: 31 maio 2026.

SANTOS, Luciana Freitas dos A presença da pedagogia libertadora de Paulo Freire na formação dos docentes da educação profissional técnica de nível médio em saúde na ETSUS/RR. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2018.

SANTOS, Maria do Carmo Ribas dos *A conformação das escolas técnicas do Sistema Único de Saúde: Escola Técnica de Saúde de Assis – ETSUS Assis – uma trajetória dirigida ao fortalecimento da saúde*. Dissertação (Mestrado) – Fundação Oswaldo Cruz, Escola Politécnica de Saúde Joaquim Venâncio, Programa de Pós-graduação em Educação Profissional em Saúde, 2020

SILVA, Débora Schimming Jardini Rodrigues da; DUARTE, Lúcia Rondelo. *Educação permanente em saúde*. Rev. Fac. Ciênc. Méd. Sorocaba, v. 17, n.º 2, p. 104-105, 2015.

SILVA, Fernanda Carla Faustino da. *Escola de saúde pública do Rio Grande do Norte: um estudo sobre a formação docente para atuar na educação profissional em saúde*. Dissertação (pós-graduação) – Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Norte, Natal, 2023.

SILVA, Rosângela Queiroz de Lima da. *Formação técnica de nível médio em saúde bucal na forma concomitante à Educação de Jovens e Adultos (EJA) na Escola Técnica do SUS-Acre*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.

UCHIYAMA, Acácia de Lima. *Análise da gestão de implementação do Programa de Formação de Nível Médio para a Saúde – PROFAPS nas escolas técnicas do Sistema Único de Saúde – ETSUS do Pará e Rondônia*. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2018.

VILANGE, Claudia Vilela de Souza. *Trajetória institucional da Escola Técnica de Saúde do Sistema Único de Saúde Dr. Luiz Eduardo Caminha, no período de 1995 a 2018, e o desenvolvimento da educação profissional no município de Blumenau-SC*. 2019. 86 f. Dissertação (Mestrado Profissional em Educação Profissional em Saúde) – Escola Politécnica de Saúde Joaquim Venâncio, Fundação Oswaldo Cruz, Rio de Janeiro, 2019.