



Permanent education in health: Design Thinking for planning and constructing guidelines

Educação permanente em saúde: Design Thinking para planejamento e construção de diretrizes

Educación permanente en salud: Design Thinking para planificar y construir lineamientos

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ABSTRACT

Objective: to analyze the course of planning and construction of guidelines for Permanent Education in Health in a health regional. **Method:** participatory research, developed by Design Thinking as a collaborative strategy for the planning and construction of guidelines for Permanent Education in Health in a Health Region in the state of Paraná, Brazil. Municipal managers, health professionals, and representatives of the Health Region participated, totaling 32 participants. Documentary analysis, focus groups and online forms for data collection were carried out, which were analyzed according to the Brazilian National Policy on Permanent Education in Health and the problematizing dialogic conception of collaborative path. **Results:** they pointed out that regional planning describes mostly generalist and quantifiable health education actions, and that raised concerns when collectively reflected. The collaborative activity provided spaces for questioning the planning of Permanent Health Education, dialogical relationships, construction of knowledge anchored in the re-signification of practices and co-participatory elaboration of qualitative Permanent Health Education guidelines based on the reflection of experienced reality. **Final considerations and implications for practice:** Design Thinking promoted leading role and transformation of knowledge and management through emancipatory dialogue. The study significantly corroborates the adoption of co-participatory and regional planning for Permanent Education in Health by redefining practices.

Keywords: Learning; Education, Continuing; Health Management; Health Planning; Health Policy.

RESUMO

Objetivo: analisar o percurso do planejamento e construção de diretrizes de Educação Permanente em Saúde em uma regional de saúde. **Método:** pesquisa participativa, desenvolvida pelo *Design Thinking* como estratégia colaborativa para o planejamento e construção de diretrizes de Educação Permanente em Saúde em uma Regional de Saúde do estado do Paraná-Brasil. Participaram gestores municipais, profissionais de saúde e representantes da Regional de Saúde, totalizando 32 participantes. Realizaram-se análise documental, grupos focais e formulários *online* para coleta de dados, que foram analisados segundo a Política Nacional de Educação Permanente em Saúde e a concepção dialógica problematizadora do percurso colaborativo. **Resultados:** apontaram que o planejamento regional descreve ações de educação em saúde majoritariamente generalistas e quantificáveis, e que suscitaram inquietudes quando refletidas coletivamente. A atividade colaborativa oportunizou espaços de problematização do planejamento de Educação Permanente em Saúde, relações dialógicas, construção de conhecimento ancorado na resignificação das práticas e elaboração coparticipativa de diretrizes qualitativas de educação permanente pautadas na reflexão da realidade vivenciada. **Considerações finais implicações para prática:** o *Design Thinking* promoveu protagonismo e transformação de saberes e gestão por meio do diálogo emancipatório. O estudo corrobora de forma significativa a adoção do planejamento coparticipativo e regional de Educação Permanente em Saúde pela resignificação das práticas.

Palavras-chave: Aprendizagem; Educação Continuada; Gestão em Saúde; Planejamento em Saúde; Política de Saúde.

RESUMEN

Objetivo: analizar el curso de planificación y construcción de directrices para la Educación Permanente en Salud en una regional de salud. **Método:** investigación participativa, desarrollada por *Design Thinking* como estrategia colaborativa para la planificación y construcción de directrices para la Educación Permanente en Salud en una Regional de Salud del estado de Paraná, Brasil. Participaron gestores municipales, profesionales de la salud y representantes de la Región Sanitaria, totalizando 32 participantes. Se realizaron análisis documentales, grupos focales y formularios en línea para la recolección de datos, los cuales fueron analizados de acuerdo con la Política Nacional de Educación Permanente en Salud y la concepción dialógica problematizadora del camino colaborativo. **Resultados:** señalaron que la planificación regional describe mayoritariamente acciones de educación en salud generalistas y cuantificables, y que suscitó preocupación cuando se reflexiona colectivamente. La actividad colaborativa brindó espacios para cuestionar la planificación de la Educación Permanente en Salud, las relaciones dialógicas, la construcción de saberes anclados en la redefinición de prácticas y la elaboración coparticipativa de lineamientos cualitativos para la educación permanente a partir del reflejo de la realidad vivida. **Consideraciones finales e implicaciones para la práctica:** el *Design Thinking* promovió el protagonismo y la transformación del conocimiento y la gestión a través del diálogo emancipador. El estudio corrobora significativamente la adopción de la planificación coparticipativa y regional para la Educación Permanente en Salud por medio de la redefinición de prácticas.

Palabras clave: Aprendizaje; Educación Continua; Gestión en Salud; Planificación en Salud; Política de Salud.

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INTRODUCTION

Permanent Education in Health (PEH), as a strategy that contributes to health professionals' training and development, is a practice present in health work processes and environments, and enables spaces for action and reflection on practices, even if sometimes in a veiled way,¹ in the proposition of transformations through experience in health environments.

Health professionals' qualification in Brazil gained greater concreteness with the legal outlines of the creation of the Brazilian Health System (SUS - *Sistema Único de Saúde*) as Organic Law 8.080 of 1990.² Since then, attributions have been defined, with emphasis on the system's managerial role, through the need for articulation between the spheres of government in ordering and implementing health workers' training as part of the governmental agenda.

Another outstanding milestone of professional training for and in SUS was the creation of the Department of Work and Health Education Management (SGTES - *Secretaria de Gestão do Trabalho e da Educação na Saúde*), which developed an essential work in the elaboration and approval of the Brazilian National Policy for Permanent Education in Health (PNEPS - *Política Nacional de Educação Permanente em Saúde*). As a health policy aimed at training processes and qualifying health actions, it is proposed as the main tool for qualifying health work processes and environments 3 linked to the scope of SUS principles.

Along with the conceptual definitions described in PNEPS, it is recommended that PEH actions be based on local and locoregional demands, collectively and meaningfully reflected, from the perspective of generating transformations in practices.³ Since it is considered a political-pedagogical proposal, which enhances teaching-learning movements in the work environment, due to the technical cooperation of the teaching-service-community intersectoral articulation and the proposition of overcoming health workers' merely technical learning,⁴ PNEPS underwent a reformulation in 2007,⁵ adapting it to the dimension of regionalization and the Pact for Health, proposing Teaching-Service Integration Commissions for the formulation, conduction and development of strategic actions⁶ based on planning based on real demands.

PEH, in addition to the guidelines proposed by PNEPS for its development, meets the movements of intersubjective relationships that are intertwined in a constancy of actions that are planned, executed and reformulated together with the guarantee of the autonomy of those involved in acts that do and give sense to something.⁷

In Brazil, efforts to materialize PEH have been conducted in the sense of proposing norms and programs with the objective of suggesting referrals to strengthen professional qualification, highlighting the Program for Strengthening Permanent Education in Health Practices in SUS (PRO PEH-SUS) and Interprofessional Education in Health.⁸ PEH promotion strategies advance in the development of health education management in an attempt to contemplate the quadrilateral of training through actions that involve teaching, management, care and social control, which seek to foster professionals' autonomy to change practices.⁸

It is important to highlight that health education brings the concept of outlining the construction of knowledge to work in health work, and is presented in continuing education and PEH.⁶ Thus, for PEH to actually be able to transform practices, in addition to knowing the concepts and terms in their essence, it is relevant to consider the processes and work environment as opportune spaces for constant changes. It is fundamental to think about a decentralized, collective planning and formally inserted in the formal instruments of management. This fact is still a challenge and lacks creative and innovative induction, given the incipient production of knowledge about strategies, methods and actions that materialize PEH planning under the aegis of its bold policy.

The research proposition arose from a service demand for greater concrete planning and development of a regional PEH, since the moment in the state conjuncture was also propitious, as the state adopted a format of PEH strategies, *PlanificaSUS Paraná*, for planning and strengthening work processes in the various spheres of health in the state, including PEH planning. In this way, the listed demand boosted the teaching-service integration, which, in this case, was already favorable to health education together with Regional Health management, in line with the proposal of the Design Thinking approach, which suggests the actions of those involved in the action, from the initial stages of the innovation process. Furthermore, the research has an innovative, original and unprecedented character.

Therefore, the present research was anchored in the following question: does the collective construction of PEH guidelines, anchored in a creative and participatory approach, transform PEH planning together with management?

The objective was to analyze the participatory path in the planning and construction of guidelines for PEH in a Health Region.

METHOD

This is participatory and collaborative research, developed based on the Design Thinking approach, which proposes the active and leading actor insertion of all those involved in the inspiration, ideation and implementation, through creative solutions in the face of multifaceted demands.^{9,10}

It is based on the fact that Design Thinking presents itself as a participatory and interactive strategy centered on the human being, anchored in movements of divergence and convergence of ideas through the interaction of people and environments, involved in observation, dialogue, questioning, intentions, cooperation, creativity and co-creation, under the need for innovation in the face of demands.^{9,10}

The research was carried out in a Health Region of Paraná, located in the northwest health macro-region, having a municipality that hosts the management unit of the State Health Department of Paraná (SESA-PR - *Secretaria Estadual de Saúde do Paraná*). This Health Region makes up one of the 22 regions and has five health micro-regions, comprising a total of 30 municipalities.

Municipal health managers, health professionals representing municipal management, sectoral representatives and the Health Region management team participated, totaling 32 participants. Members of the Health Region management team, assigned to the Health Region, PEH articulator with the municipalities, municipal health managers or representative of the municipal health management were included. Professionals who were away from their duties, due to leave or vacation, would be excluded from the survey; in this case, there was no exclusion, since all the guests met the election criteria.

It should be clarified that the social control represented by health councils, an important part of planning and developing PEH actions according to PNEPS, was not part of the research due to operational issues of research development time.

For more research concreteness, and part of the inspiration stage of Design Thinking, the project, elaborated through partnership between educational institution, Health Region and Public Health School of Paraná (ESPP - *Escola de Saúde Pública do Paraná*), was presented and approved in a meeting of the Regional Intermanagers Commission (CIR - *Comissão Intergestores Regionais*) - formal instance of deliberation and agreement in which managers from all municipalities belonging to the coverage area of the Health Region in question participate. In addition to the approval of the project in this managerial space, the importance of the participation of the municipalities was highlighted, since it was agreed that collaborative work would also result in suggestions for PEH guidelines, made available to all municipalities to be included in formal management documents, such as Municipal Health Plans.

As a source of data, still in the inspiration phase and in order to know municipal PEH planning, an analysis was carried out of the Municipal Health Plans of the 30 municipalities belonging to the Health Region, arranged as guiding documents of PEH in the municipalities. Document analysis for new knowledge production has as one of its aspects contributing to new perspectives of the contexts and historical phenomena of documents¹¹ in the study in question, to understand in detail whether the municipal PEH planning is contemplated in the municipal management's formal documents as well as whether these actions are arranged according to PNEPS guidelines and assumptions.

The survey of information in Municipal Health Plans, in addition to enabling assessing the materialization of systematization and planning of PEH actions, was also carried out in order to understand the importance of obtaining knowledge about how management defines strategies for the development of PEH actions.

Municipal health plan analysis election, as part of immersive in the real situation, was carried out in order to know the planning of PEH together with managers and professionals who experience this context. For a better direction of this investigation, we studied the analysis under some outlining aspects of PEH proposed by PNEPS³, namely: the contemplation of educational actions in health together with the documents that guide management;

the description of strategies for executing, assessing and monitoring PEH actions; the indication of spaces for its development; the definition of responsibilities regarding PEH actions; the allocation of resources that make it possible to structure and encourage PEH development; and the participation of teaching-service-community in PEH actions.

The strategy used to understand PEH knowledge and practices as well as the way in which PEH planning is thought, indicated as part of the ideation phase, was group meetings, carried out in order to promote interaction and reflections on the themes among participants. Focus groups (FG) were carried out which, in addition to generating data, are a participatory tool that encourages integration between researcher and participant, which, through these movements, enable the exchange of experiences and concepts,^{12,13} in addition to the ability to generate insights for creative and innovative solutions to the demands.^{9,10}

Due to the coronavirus pandemic, and the health recommendations for restricting face-to-face meetings, the meetings took place in a remote format using Google Meet[®], recorded in audio and video. Six FG were held between September and November 2021, totaling 32 participants, an average of six participants per meeting. To meet the recommendations for carrying out the FG, they had a moderator and an observer,¹² with an average duration of 80 minutes.

FG were conducted by nurses, two working in care practice, two teaching in higher education and one with a master's scholarship. Of these, three with previous experience in conducting FG, and at least one was present in each FG. All who acted as moderators or observers, including the first and second authors of this article, are linked to the Graduate Program in Nursing (GPN) at the *Universidade Estadual de Maringá* (UEM), master's and doctoral students.

FG were carried out by health micro-regions within the scope of the Health Region, covering the 30 municipalities, and a meeting with professionals working in the region. The invitation to participate in the research took place at the CIR meeting, during proposal presentation, and later, through contact of the Health Region PEH management with each municipality to formalize the importance of participation and agreement on days and times.

To conduct the FG, the author prepared a script with citations understood as gaps in Municipal Health Plans in relation to PEH planning, triggering questions about knowledge and practices of PEH developed in the municipal management and Health Region, and participants' perspective on the need to insert and materialize actions of PEH within managerial planning. For greater detailing of verbal and non-verbal expressions, FG were transcribed into a Word[®] document and then identified as G1 to G6, in the sequence of performance.

During group meetings, participants exposed indications of directions for constructing guidelines, suggesting that there were moments of brainstorming that are identified as creative attitudes on the part of the ideation space.^{9,10}

For a better consolidation of the PEH collaborative planning process, passing through the spaces of ideation and implementation, prototyping as a moment to materialize ideas for a concrete reality^{9,10} occurred through participation in the elaboration of guidelines, such as directions for PEH actions through an online form on Google Forms®, which had 29 participants.

In order to ensure greater similarity with PNEPS outlines for PEH implementation as part of implementation, the result of construction via form was assessed by five PhD judges, university professors, experts in the area of PEH and health management. The final version of PEH guidelines, arising from this collaborative proposal for planning the regional and municipal PEH, was presented and approved by the CIR, in addition to being made available to the 30 municipalities of the Health Region locus of this study as proposals and suggestions to be inserted in management's formal documents as well as to guide the elaboration of new guidelines.

For the analytical stage of the Municipal Health Plans, document analysis was chosen to produce new knowledge, in addition to contributing to new perspectives of the contexts and historical phenomena of the documents.¹¹ A more detailed survey of health education description was carried out, contemplating the analysis of the reality of PEH planning in the management's formal documents, according to PNEPS guidelines and assumptions.

Also, a reflective analysis of all collaborative activity was supported by the reflection of the "critical nodes" listed in the analysis of Municipal Health Plans¹¹ and in the dialogic-problematizing conception¹⁴ of the context of PEH planning activity in regional and municipal health management, which resulted in the elaboration of proposals for PEH guidelines with the potential to be inserted in formal management instruments, made available as a guideline for the construction of new guidelines.

Participants signed the Informed Consent Form (ICF). Ethical and legal precepts were respected according to Resolution 466/2012 of the Brazilian National Health Council, with the approval of the Permanent Committee on Ethics in Research with Human Beings (COPEP - *Comitê Permanente de Ética em Pesquisa com Seres Humanos*) of UEM (CAAE (*Certificado de Apresentação para Apreciação Ética* - Certificate of Presentation for Ethical Consideration) 49920721.4.0000.0104 and Opinion 4.883.094). The study followed the COnsolidated criteria for REporting Qualitative research (COREQ) guidelines.

RESULTS

The analysis of documents made it possible to identify outlines in the municipal planning of PEH that are related to the organizational aspects defined by PNEPS (Figure 1). Municipal Health Plans provided key points on how PEH actions are proposed at the municipal level, and raised reflective propositions about PEH organization when presented to the collective of professionals

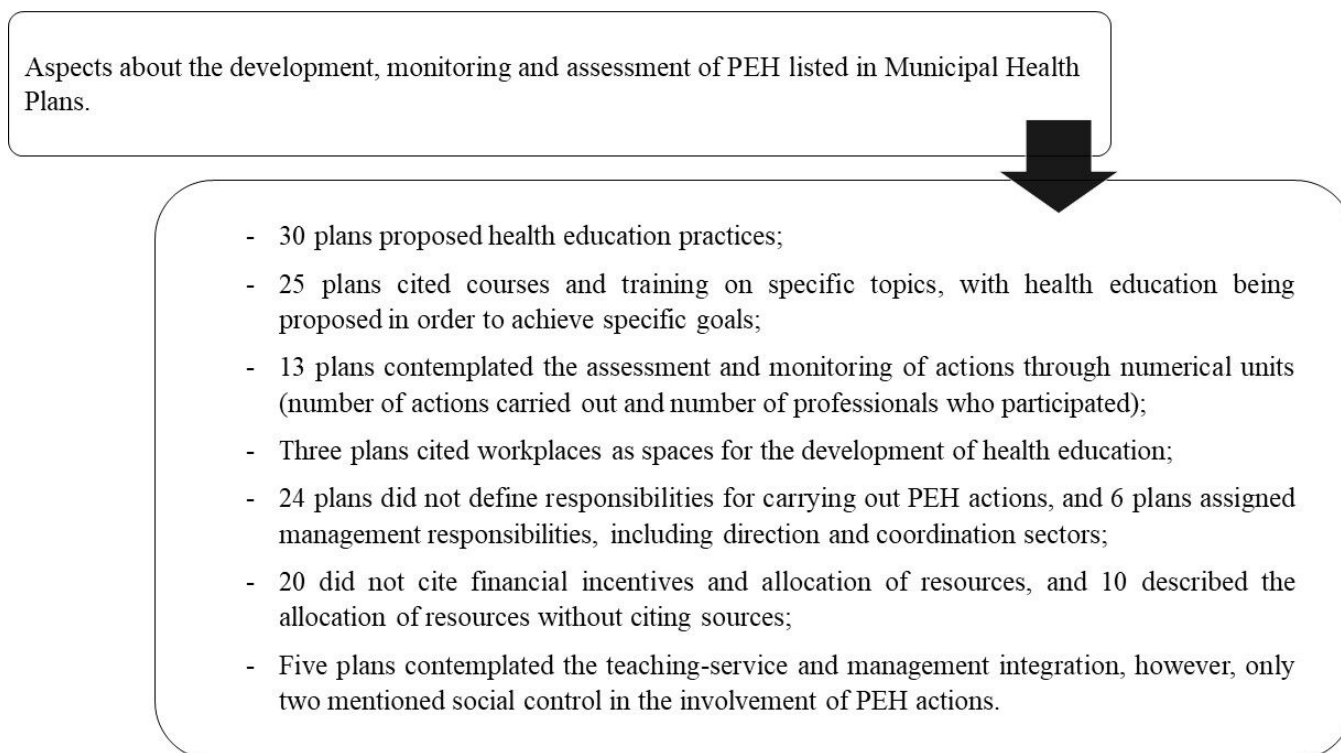


Figure 1. PEH description according to the PNEPS, listed in the Municipal Health Plans of municipalities in the Health Region. Source: the authors, 2022.

involved in collaborative activity. Therefore, bringing concrete evidence about PEH planning from documents prepared with these professionals, contributed to the reflective discussion when compared to PNEPS outlines.³

In the group meetings, component of the ideation phase, it was possible to obtain managers' and professionals' perspectives of knowledge and practices of PEH, who understood PEH planning in a general way:

[...] there's no way we don't have permanent education, I believe that way is based on the principle that without it we can't get anywhere. [...] we need to do a training, a qualification with the staff [...] we sit down and plan how the topics are going to be and how we are going to be approaching. (G3)

[...] PEH is part of human resources, on the part of the worker, who through courses, and making investments, this is my point of view. (G1)

With the situation that we find ourselves in with restrictions due to COVID-19, [...] in fact we did the training for improvement and updates in accordance with the decrees or ordinances. (G4)

Sometimes, professionals signaled that there is no collective and systematized planning for the PEH development, corroborating the difficulty of visualizing it in daily life and even carrying out assessments, records and monitoring of these practices:

[...] we work, work, work and it seems that we don't do anything, it's charged all the time as if we don't do anything, and we work a lot. (G2)

[...] many task actions, and we also end up not being able to monitor and assess whether what we are really doing is right, if we have to change our strategy. (G4)

It's not very systematized, sometimes we give some lectures, but in relation to professionals it's spontaneous, in team meetings, there is no systematization, we work throughout the week, in an informal conversation or even in meetings team. (G5)

Still, it is noticed that the collaborative activity provided opportunities for reflective behaviors in moments of collectivity, and collaborated with the understanding of the proposition of actions outlined by PNEPS.

I believe that education can help us organize the service and improve management and service as well, it is fundamental, [...] we also have a lot of difficulties and I hope to learn a lot here and be able to contribute with each professional in the municipality, and also improve service and management. (G5)

And this focus group is important because I have no doubt that whoever is here will be able to help us a lot in building these indicators. (G4)

This is all new to me, I really hope it's good because we're having a hard time. (G5)

We sought through monthly meetings with coordinators, where we discuss actions, indicators, in short, our goals, we try to make this schedule. (G1)

They always organize a time, for example at BHUs, to be able to hold a discussion meeting [...] so, if there is a course available, a training course, we always try to use these hours in the late afternoon, to talk to the teams, encourage training, discuss important cases of our day to day. (G1)

[...] a meeting is held at the beginning of the year, so this planning meeting is with the primary care nurses along with the primary care coordination. So, all units follow the same plan. (G5)

With planning, I can also be together and charge the girls, these skills, and I also understand that we must do this exercise of daily reflection so that all this really happens, planning beforehand. (G6)

If we don't have meetings and meetings, there's no strategy, there's no planning, there's none of that and that's how we change the practice...(G6)

As part of the implementation stage, in order to materialize the ideas, it was possible to collaboratively create qualitative and specific PEH guidelines as a prototype which, after judges' assessment and appreciation by managers and professionals, are presented (Figure 2) as a final version.

It should be clarified that minor adjustments were made to PEH guidelines after judges' assessment, such as changing the term adequate knowledge to scientific knowledge in guideline 1, and, in guideline 2, clearly and punctually describe the need for the proper use of health education terms and concepts beyond the plans and that PEH actions must be articulated with the process' reality.

DISCUSSION

Prior analysis of municipal PEH planning in documents guiding health actions, carried out while immersing in depth in the context to be reflected as part of the inspiration stage of Design Thinking,^{9,10} made it possible to use the characteristics of weaknesses and possibilities as insights for collective reflection, since the importance of planning actions in a perspective of real demands for developing PEH could be worked on anchored in the guidelines proposed by PNEPS. Still, such evidence could raise discussions on the need for regional planning to be elaborated along with PEH proposals at the state level; in this case, the State Plan for Permanent Education in Health existing in the state of Paraná since 2019.

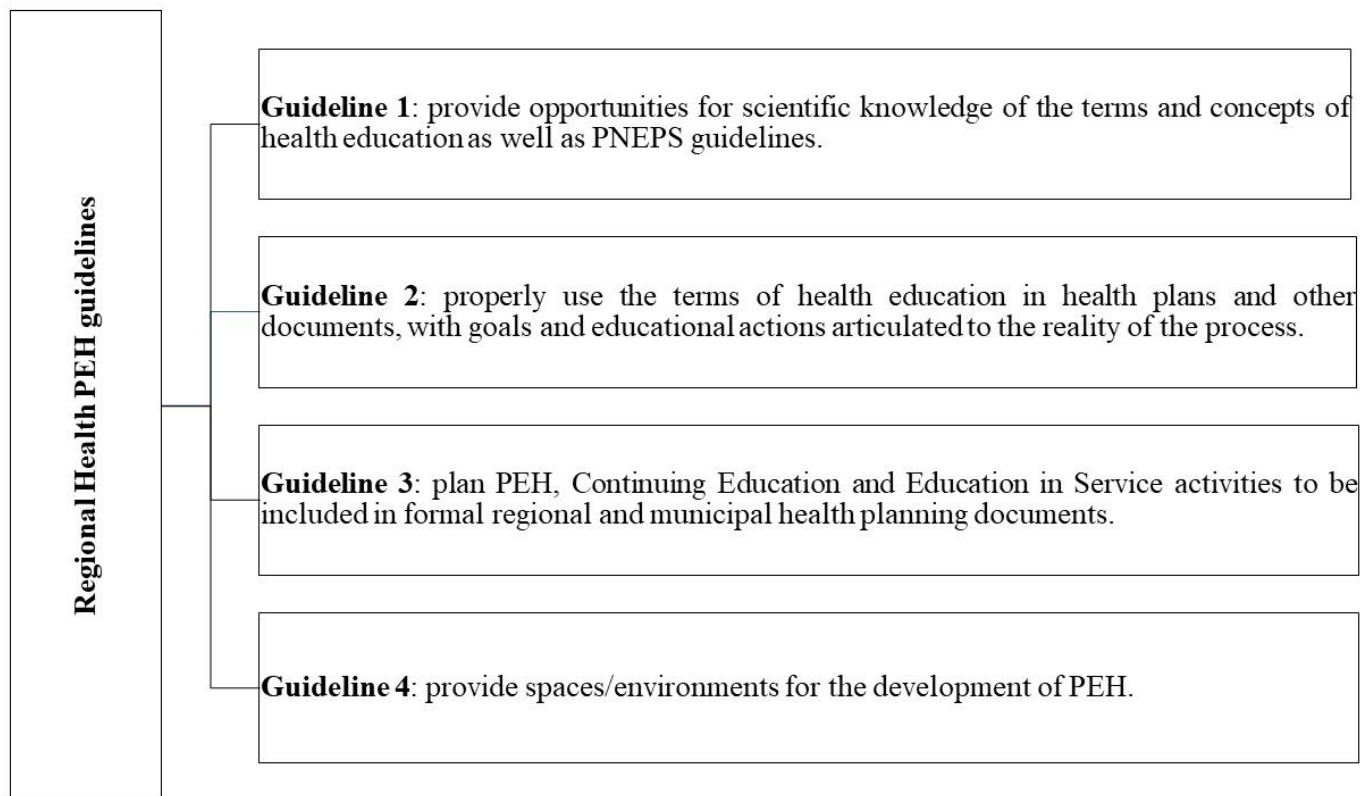


Figure 2. PEH guidelines elaborated in the collaborative construction activity in health with municipal managers and health professionals from the Health Region.

Source: the authors, 2022.

Health planning, with regard to health education, materializes or should be included in formal local management planning documents or in specific plans, assuming the meaning of an element of intersectoral policies that bring in their framework the regionalization process that best approximate PEH implementation in practice. They can contribute significantly to professional instrumentalization and, consequently, systematization of actions¹⁵ based on these professionals' reality.

In order to implement the PNEPS, it is necessary to understand it as a policy that goes beyond the guidelines of teaching-learning practices in the work environment, because, in a broader perspective, we need to understand its contribution as a guiding framework for the development of programs and projects aimed at professional training; the strengthening of intersectorality with the education sector; and the transformation of health practices and contexts based on achieving SUS principles.¹⁶ Therefore, local planning must be thought of collectively, regionally, comprehensively and intersectorally.

The fact that we still witness many health planning actions from a vertical perspective, based on data and contexts extracted from a national scenario, capable of compromising the managerial ability to understand the genesis of the problems,^{16,17} can lead to generalist planning when it comes to PEH, as seen in plan

analysis and evidenced in group meetings with participants where PEH was understood in an incipient way linked to the need of qualifications, courses and training in the same sense of planning some municipal health actions that invest less importance in local scenarios.

Inaccuracies of conceptual bases may suggest learning conditioned to traditional spaces of education, associated with individual and technical training as the main way of preparing professionals for everyday demands. This preconception determines the perspective of a generalist continuous knowledge or associated with specific subjects,^{18,19} reducing the potential of PEH, as observed in this study.

In line with the study in question, the development of educational actions in health suggest that PEH is positively self-assessed and that planning needs to be centered on the perspective of professionals' daily lives, with PNEPS improvement as a way of democratizing learning at work and involvement management, workers, teaching and social control.¹⁸ Therefore, document analysis proved to be a relevant method as a stage of the participatory proposal, as it added information for the following stages, choosing driving issues to be transformed, such as overcoming associating PEH only with courses and training, and with the term "continuing education" (CE).

With regard to PEH planning, it was institutionalized with the enactment of policies that establish the Brazilian health system, through a framework of the need for professional training and management bodies' commitment to integrate integrated training into the regionalized health system.²⁰ However, if based on verticalized actions, with priority themes, they cause tensions in municipal and Health Region management¹⁷ and can lead to the feeling of executors of defined tasks. This statement is in line with the perception of the participants who pointed out challenges in demonstrating to management the importance of establishing planning as part of health work and how much this fact can influence professionals' disposition.

Regarding the participation of professionals in PEH actions as well as in the daily work some characteristics must be considered to encourage workers' involvement, such as behaviors of interest, attitudes, commitment, or lack thereof. Still, interpersonal and relational relationships can influence the interaction of workers and the motivation on the part of the management of health services,¹⁹ including strategies that promote collective activities that encourage teamwork, such as the activity developed in this study.

In this regard, group spaces allowed participants to reflect on the need for tangible guidelines for the entire process of developing PEH spaces, including raising the concern of those involved about tools for monitoring the actions that are being developed. Issues associated with failures in the planning of PEH actions, such as weaknesses in monitoring and assessing these actions, can lead to the absence of instruments that assess beyond the quantification of actions.²¹

The fact of observing that participants among a group of professionals who experience similar realities understood the need for materialized planning, including for greater ease of execution and more visibility of actions, is anchored in the perspective that horizontal and dialogic relationships are opportunities for individuals mediated by the world and by daily experiences to educate themselves in cooperation.¹⁴ This is an important conception defended by PNEPS³ and that must be made possible, reaffirming the need for encouragement, mainly by management bodies.

An important factor is that the capillarization of discussion on the PNEPS implementation in a collective proposal, together with those who carry out and plan health education, can favor critical and liberating attitudes,¹⁴ considering that collective learning proposes the exchange of knowledge and experiences between peers, through movements that enhance tension, dissent and consensus for advances in the construction of new possibilities for constructing knowledge.²² This fact makes PEH a strategy that enables meetings to be able to transform health contexts and practices.

PNEPS³ brings the concept of participatory relationships to overlap PEH actions. In the same sense, participatory methodologies^{23,24} that encourage active and dialogical attitudes towards the demands of construction, planning and decision-making can contribute to meaningful learning.

In this sense, the proposal to consider PEH collectively was adopted in the activity developed and suggested a contribution to reflection behaviors in the identification of collective practices as tools that foster discussion, action planning and knowledge construction.

In order for the proposition of a collective work to contemplate the equal participation of all those involved, the concepts of cooperation and co-participation require paradigm shifts such as: understanding the need for everyone's involvement; appreciation of different knowledge; recognition that there are no differences in powers within the group, but delegation of functions according to each participant's interest and aptitude; the relationships that make teaching-learning possible; the exchange of knowledge and dialogue, permeating all spaces.²² Thus, the perceptions brought by participants lead us to the understanding that they consider the group as important moments and reproduce this observation to identify the occurrence of these moments in daily work.

In addition to discussing the demands of Municipal Health Plans and their relationship with issues that interfere in the collective planning of PEH actions, group meetings provided opportunities for problematizing professionals' experiences in order to reveal the intertwined relationships with the development of PEH. Through reflective dialogue, these spaces made it possible for participants to understand the need to propose actions that were really consistent with the PNEPS proposal and that, in fact, contemplate PEH concepts.

In this sense, the collaborative activity developed by Design Thinking,^{9,10} with regard to PEH planning and guideline implementation, was thought beyond a perspective that innovating is just a market trend, but also a necessary, strategic and creative act to do and think about health through a creative management concept, applicable to a real scenario and that actually produces teaching-learning movements necessary for professional action to allow constant transformations.

However, suggesting dialectical and co-participatory movements, as a way of leading the subject to the center of the knowledge construction process, under the logic of being driven by concerns based on the itinerary of knowledge for emancipation, legitimized by meaningful learning, it contrasts encounters that produce uncritical relationships and that tend to lead to naive thinking about the facts.^{6,14}

Given this scenario, Design Thinking, as an essentially human approach, in the empathetic involvement of people in the face of demands, reaffirms the need for active and leading role interaction between those involved to transform ideas into creative solutions that, at first, are prototyped in an unfinished version and allow to be constantly co-created⁹⁻¹⁰ as well as the creation of PEH guidelines (Figure 2) as a guide for future regional and Municipal Health Plans. It is inferred that they have the potential to be used and adapted for the planning of regional and municipal PEH together with formal management instruments and that they can be used as suggestions for the elaboration of new guidelines, since the actors who experience the local reality participated in this construction.

The collaborative activity of constructing guidelines helped participants understand the need to transform practices as well as redefine PEH planning based on proposing actions that address local reality. Along with the guidelines presented, we observed the inclusion of PNEPS conceptual understanding and outlines that can be assumed as a potential factor for the concrete development of PEH.

The guidelines created certainly suggested a reflection of advancement of discussions with participants, as they bring in their lines issues such as the importance of conceptual bases, the need for formal planning along with the experienced reality and the essentiality of describing the incentive for the PEH event, in the sense of creating opportunities for spaces that influence its development.

Another feature worth mentioning was the creation of guidelines for PEH that are essentially qualitative, viable and feasible for services, implementable in various health settings with the involvement of different actors, overcoming the conception of exclusively quantifiable actions, contributing to participants' understanding that formal management documents can have their own guidelines representative of health education.

Therefore, we can understand the fact that from the moment professionals are included as leading actors in health decisions, there are great chances of a transposition to a state of disalienation of this subject and progress towards critical awareness of their position in the context experienced.²⁵

Adopting PEH in a broader perspective, considering theoretical-scientific issues, practical outlines, problematization of reality and horizontal relationships permeated by dialogue, is consistent with the concept that learning at work is produced through relationships that require the involvement of all the actors involved, such as managers, workers, users and educational institutions,⁷ making them subjects of processes involved in action-reflex-action movements for praxis.¹⁴

The collaborative movement for changes in PEH planning developed in this study included CIR as an important instance for managerial praxis¹⁴, since these spaces encourage managers' leading role in the face of deliberative demands in health.

As deliberative instances, CIR are spaces that strengthen municipal autonomy, without breaking interinstitutional co-responsibilities with other entities.²⁶ From this perspective, they are recognized as spaces of regional governance for conflict resolution, decision-making, and the exercise of local management's role,²⁷ which is why it is important to be included in this space as part of the materialization of constructed guidelines.

Thus, the understanding that the strengthening of health governance and regionalization of management planning permeates the occupation of spaces, co-management, division of co-responsibilities and autonomy in the sense of enhancing its performance²⁴ indicates that local health managers are capable of translating the real contexts in which they are inserted in their greatest representativeness and can propose much more assertive and inclusive PEH deliberations.

During collaborative activity, dialogic-problematizing processes were centered on aspects such as the analysis of real contexts as "critical nodes" for reaching ideal movements; in this case, PNEPS recommendations for implementing PEH actions, through problematization anchored in participants' experience as a guiding proposal.

The other dimension that deserves to be highlighted in group meeting analysis and in guideline elaboration was participants' attitude in moving towards a perspective of thinking about a co-participatory planning with the potential reach of concrete actions; in this case, construct guidelines for PEH through dialogue and reflection on the real context, which can be developed in the local context, added to the state and national scene and which, after expert assessment, were legitimized as guidelines anchored in PNEPS.

In addition to the fundamental commitment to expanding health education, the democratic insertion of professionals in this collective activity proposed to overcome the feeling of being considered only as structural pillars of the health system, but also as main actors in changes in health practices and contexts.

As for the spaces of empowerment of professionals, health contexts as dynamic spaces of power relations,²⁸ driven by dialogic and emancipatory movements, PEH can contribute to the qualification of care, and the locus of work environments, for its development.

FINAL CONSIDERATIONS AND IMPLICATIONS FOR PRACTICE

From the study, it was possible to analyze the participatory route of planning and construction of PEH guidelines, considering the collaborative strategies anchored in PNEPS assumptions based on the involvement of professionals who think and develop actions in health education as potentiating aspects of teaching-learning and collaborative planning of PEH at the regional and municipal levels.

Design Thinking is an innovative strategy that provided opportunities for co-participatory spaces and leading actors of knowledge construction for re-signification and PEH planning. Collaborative activity was assertive for the involvement and leading role of those involved who, through emancipatory movements linked to the "critical knots" of the current planning format, dimensioned to those involved a portion of the specificities of the individual planning of each municipality and the prerogatives in which state and national planning raise actions to be developed at the local level.

Faced with the considerable list of studies that analyze the development of PEH practices, the study in question contributes to the scientific dissemination of participatory strategies for planning PEH together with formal management instruments and instances of agreement and management deliberation, and teaching-service integration, contributing to the health area as a strategy for co-participatory planning and leading actor at regional and municipal levels.

Since it is research developed in the health area, especially in directing educational practices for and with professionals, it has implications for nursing, as they are themes that are closely linked to the work of nurses who are inserted in different health environments, including management.

Even though it is an innovative activity in the state of Paraná, the study was limited to a Health Regional without participation in the entire state management and the absence of social control legitimized by health councils, whose inclusion as actors in this guideline construction process was not possible due to operational issues.

AUTHOR'S CONTRIBUTIONS

Study design. Poliana Avila Silva. Mariana Pissoli Lourenço. Vanessa Denardi Antoniassi Baldissera.

Data acquisition. Poliana Avila Silva. Mariana Pissoli Lourenço. Vanessa Denardi Antoniassi Baldissera.

Data analysis and interpretation of results. Poliana Avila Silva. Mariana Pissoli Lourenço. Vanessa Denardi Antoniassi Baldissera.

Writing and critical review of manuscript. Poliana Avila Silva. Mariana Pissoli Lourenço. Vanessa Denardi Antoniassi Baldissera.

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