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Permanent education in health: a review

ABSTRACT

OBJECTIVE: To undertake a meta-synthesis of the literature on the main concepts and practices related to permanent education in health.

METHODS: A bibliographical search was conducted for original articles in the PubMed, Web of Science, LILACS, IBECs and SciELO databases, using the following search terms: “public health professional education”, “permanent education”, “continuing education”, “permanent education health”. Of the 590 articles identified, after applying inclusion and exclusion criteria, 48 were selected for further analysis, grouped according to the criteria of key elements, and then underwent meta-synthesis.

RESULTS: The 48 original publications were classified according to four thematic units of key elements: 1) concepts, 2) strategies and difficulties, 3) public policies and 4) educational institutions. Three main conceptions of permanent education in health were found: problem-focused and team work, directly related to continuing education and education that takes place throughout life. The main strategies for executing permanent education in health are discussion, maintaining an open space for permanent education, and permanent education clusters. The most limiting factor is mainly related to directly or indirect management. Another highlight is the requirement for implementation and maintenance of public policies, and the availability of financial and human resources. The educational institutions need to combine education and service aiming to form critical-reflexive graduates.

CONCLUSIONS: The coordination between health and education is based as much on the actions of health services as on management and educational institutions. Thus, it becomes a challenge to implement the teaching-learning processes that are supported by critical-reflexive actions. It is necessary to carry out proposals for permanent education in health involving the participation of health professionals, teachers and educational institutions.

DESCRIPTORS: Education, Continuing. Education, Public Health Professional. Education, Professional. Public Health. Review.

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INTRODUCTION

Forming a team of health care professionals is a challenge that pervades political settings and institutional practices in order to meet the expectations of the quality of care provided to the community.⁵⁷

The Brazilian Unified Health System (SUS), due to its size and scope, is present in the arena of educational processes in the health sector as a privileged place of teaching and learning, especially places in which health care is provided. Educate “at” and “for” work is the assumption of the proposal for permanent education in health (PEH). In the places where care is produced, aiming for integration, shared responsibility and problem solving, are, simultaneously, the scene of pedagogic production, as it is here that meetings of workers and users are concentrated.²³ The idea of PEH appeared in the 1980s as a Pan American Health Organization and World Health Organization (PAHO/WHO) initiative to develop human resources in health care. It was launched as a national policy in Brazil in 2003, playing important role in conceiving a democratic, equal and efficient SUS.^{40,43}

The PEH was constructed to be a tool for transforming health care professionals into individuals with a profound knowledge of the local situation. To achieve this, it was necessary to place training within a framework of regionalization, with programs adapted for health care professionals and teams at each level of the local health care system.³³

The first step in making changes to the training process is understanding that the processes can no longer be constructed in isolation, nor from the top down or hierarchized. They need to form part of a bigger strategy, be linked between themselves and be created based on discussion of local circumstances, involving diverse segments.⁶⁶

To successfully develop human rights in health care, the planning and formulation of policies needs to result in a multi-sectorial effort between health, education, work and finance, coordinating governmental and non-governmental figures.^{a,b}

From this perspective, there exists a need to boost professional education so that the worker’s profile is directed towards comprehensive care and ongoing restructuring of their knowledge based on discussion and internal demands under the logic of PEH.

The aim of this study was to conduct a meta-synthesis of the literature on the main concepts and practices related to permanent education in health.

METHODS

We used a meta-synthesis to conduct a review of the literature,⁶⁰ this being an important methodological tool for integrating data from sets of studies on a determined intervention or area which were performed separately.³² It covers both the analytical process and interpretation of results, enabling them to be synthesized and thus obtain a wider conceptual understanding.⁵⁹ Such integrations are more than the sum of their parts, as they offer new interpretations which cannot be found in any of the primary reports, as all of the articles deal with one single sample.³⁷

Thus, the starting point for the stages listed below is the research question: “How were the research criteria and practices highlighted in the literature on permanent education in health constructed?”.

A search of different databases and areas of knowledge was developed that was both broad and detailed. It was decided to use North American (PubMed and Web of Science), European (IBECs) and Latin American (LILACS and SciELO) multi-disciplinary databases.

Inclusion criteria considered original articles published in indexed journals between 2000 and 2011. This criterion was established as the basis of PEH definitions, policies and practices were most clear and most widely disseminated in this period. However, references to articles from before 2000 were also sought in all of the databases, to verify whether there were any other original publications that were important to this research. None were found.

Studies with samples of individuals of both sexes, working in health care or educational institutions, which established PEH practice or research were also included, as were research that had been produced and discussed qualitatively, quantitatively or qualitatively and quantitatively, so as to generate elements for the analysis of qualitative data.

Studies in which the main research principal was not continuing or permanent education were excluded.

In order to select the articles, different search strategies were defined for each database, including descriptors, keywords and more appropriate subjects used in the searches.

^a Organización Mundial de la Salud. Organización Panamericana de La Salud. Ministerio de Salud de Canadá. Ministerio de Salud y Cuidados Prolongados de la Provincia de Ontario. Llamado a la acción de Toronto 2006-2015: hacia una década de recursos humanos en salud para las Américas. Reunión regional de los observatorios de recursos humanos en salud. Toronto; 2005 [cited 2012 Jan 8]. Available from: http://www.observatoriorh.org/sites/default/files/webfiles/fulltext/OPS_desafios_toronto_2005.pdf

^b Organización Mundial de la Salud. Organización Panamericana de La Salud. 27^a Conferencia Sanitaria Panamericana. 59^a Sesión del Comité Regional. Metas regionales en materia de recursos humanos para la salud 2007-2015. Punto 4.6 del orden del día CSP27/10. Washington (DF); 2007 [cited 2012 Jan 12]. Available from: <http://www.paho.org/spanish/gov/csp/csp27-10-s.pdf>

The first search was conducted in the PubMed database. Initially, the descriptors used MeSH (Medical Subject Heading) terms which were close to the research topic.

1: *public health professional education [MeSH] AND continuing education[MeSH]*. In this way, 33 results were obtained.

2: *“permanent education” AND health*. Resulting in 46 articles.

3: *professional education [MeSH] AND interprofessional relations [MeSH] AND “permanent education”*. Giving 15 results.

4: *continuing education [MeSH] AND “permanent education”*. With 27 results.

5: *health policy [MeSH] and continuing education [MeSH]*. With 133 results.

The total number of articles found was 254.

In the Web of Science database the words *“permanent”* AND *“education”* were used and the search revealed 39 results.

Seven articles were selected from the IBECs database after searching *“permanent education”*. In order to obtain the greatest number of results, the words *permanent* AND *educat\$* AND *health*, were used, resulting in five more articles.

The search of the LILACS database resulted in 35 when the topic searched for was *“permanent education health”*. Another 110 results from searching *“continuing education health”* were also included for later selection using the established criteria.

Finally, articles were searched for in SciELO under the topic of *permanent education*, 88 articles being found. Another search strategy was to join the terms *permanent education* AND *professional education*, which recovered 51 documents.

With the aim of standardizing the selections, the base concept of PEH, built on proposals of meaningful learning and questioning, which constitute educational processes seeking to promote transformation in health and education practices, was used.^{12,51}

All of the articles were saved and forwarded to an EndNote Web account.^e Next, they were compared and selected using the pre-established criteria, first by title, then by abstract, followed by a reading of the entire text and selecting from the authors' bibliography and quotes, which generated new results for complementary articles.

The articles selected according to the inclusion criteria underwent individual analysis by the principal researcher, supervised by an advisor, thus minimizing possible interference from having only one evaluator. Next, the articles underwent comparative analysis, in which criteria were established to group them according to key elements, and they were subject to a meta-synthesis.

Research ethics precepts were respected at all stages of the study, which had been approved by the Research Ethics Committee of the *Universidade Federal de São Paulo*, Protocol 0726/11, meeting the University's institutional standards.

DISCUSSION OF THE CONCEPTS AND PRACTICES OF PERMANENT EDUCATION IN HEALTH

A total of 590 publications were found, of which 87 were duplicates. The following were excluded: 254 articles after analysis of the title; 128 after analysis of key words; and 73 after reading the whole article, as they did not meet research objectives. Thus, 48 original publications were selected and analyzed. Table 1 shows the inclusion and exclusion process for the studies.

The meta-synthesis used the proposal of focused, constant analysis.⁶¹ The following four topic units were established as key-elements, central to the comparison: 1) Concepts: principal concepts taken from the articles on PEH; 2) Strategies, strengths and difficulties: reports incorporating the difficulties and possibilities of implementing and maintaining PEH; 3) Public policies: identifying when implementation of public policies approaches PEH and 4) Educational institutions: incorporation of PEH into institutions, especially those of higher and postgraduate level education, and coordination between teaching and the service.

Table 2 shows the analyzed articles, their principle objectives and the synthesized key-elements.

Concepts of permanent education in health

Such concepts cover the transforming and problematic practice, as well as the relationship between continuing and lifelong education. These concepts are based on the premises of public policies and historical changes in the way of dealing with and recognizing professional education for adults.^d The principal study population of articles which base the research on understanding PEH as a transforming and problematic practice, based on the reality of services and which promote integration

^e Estorniolo Filho J, organizador. End Note Web: Guia de uso. São Paulo: Faculdade de Saúde Pública da USP; 2011 [cited 2011 Jun 23]. Available from: http://citrus.uspnet.usp.br/sibi/tutoriais/Manual_EndNoteWeb_publicacao.pdf

^d Ferraz F. Contextos e processos de desenvolvimento das comissões permanentes de integração de ensino-serviço: perspectiva dos sujeitos sociais pautada na concepção dialógica de Paulo Freire [tese de doutorado]. Florianópolis: Universidade Federal de Santa Catarina; 2011.

Table 1. Results of search strategies in the selected databases, according to inclusion and exclusion criteria, between 2000 and 2011.

Database	Articles found	Excluded				Included
		Duplicated ^a	Title	Abstract	Entire	
PubMed	254	25	111	85	26	7
Web of Science	39	9	21	4	5	0
IBECS	12	6	5	1	0	0
LILACS	145	18	85	17	16	9
SciELO	140	29	32	21	26	32
Total	590	87	254	128	73	48

^a Intra and Inter databases.

between the teaching and work universe are professionals in the health care services. Such studies identify that “participating in training activities is constituted in a form of democratizing institutional relationships and may be a strategy to rebuild relationships between the population, the workers and management”.⁵¹

A recurring aspect was the close link between PEH and working in a multi- or inter-disciplinary team,^{22,38,39,44,46,47,d} articulating work processes to correspond to the population’s health needs.

Thus, the PEH political proposal is understood and discussed as a construction of shared constructs^{15,63} that overcomes organization culture based on central decision making.⁴⁶ Moreover, it assumes the existence of an organization with a network of relationships fabricated by all participants from ideas, needs and sentiments present in social actions, which reflects perceptions and experiences of reality.⁵⁶

Collective spaces made up of exchanging knowledge, reflections and evaluations have been described as the path for designing new ways of producing care⁴⁰ that require reality to be understood, not to adapt to it, but to intervene.²⁹

Discussing practice is understanding that learning takes place through action-reflection-action,^{4,51,72} which is characterized by commitment and self-implication³⁰ based on knowledge of the participants and of meaningful learning, in order for the practice to be developed in the service and to effectively appropriate the territory.²⁹

Another key element, present in seven publications,^{27,44,47,50,51,68,69} was PEH directly related to continuing education, based on occasional, fragmented actions, with traditional teaching methodologies. In these articles, the concepts were used as synonyms in practice.⁷⁰

Sometimes it was observed that the studied populations of health care professionals reported having courses, team meetings to pass on administrative information and specific training as if they were PEH concepts and practices.^{13,26,47} What was called for in some services

was the acquisition of professional skills, with not only possession of knowledge of the discipline or techno-professional knowledge mattering, but also the ability to mobilize such knowledge to deal with unforeseen situations at work. Acquisition of skills seemed to refer, primarily, to workers’ individual characteristics¹⁸ not prioritizing teamwork or collective discussion as a learning focus.

Other studies corroborate that PEH encompasses continuing education. In this case, the studies revealed the concepts to be understood separately, however, actions connected to continuing education predominated, although with possibilities of actions with new formats, contents and meaning.^{44,47,50,58} In other words, in the discourse, there is the intention to produce PEH, but in practice this is restricted to continuing education.

The third central element identified was another prevailing view of PEH as lifelong education, by redefining continuous personal and inter-personal development, viewing learning at work as going beyond the technical dimension.⁵⁶

This idea began to be discussed in the 1920s, but it was in 1966, at the UNESCO General Conference, that it was defined as a priority objective in promoting continuing or lifelong education.²⁴

Thus, the three articles which refer to lifelong education mainly discuss continuous self-improvement in the search for personal and professional skills^{34,50} and do not pay much attention to situations of discussing work in order to transform circumstances.

Strategies, strengths and difficulties of permanent education in health

This central element can be perceived in relation to everyday practices relating to the topic in services and institutions.

From the perspective of 25 of the studies analyzed,^{4,10,13,14,21,22,38,39,40,44,46-48,51-53,55,58,63-65,68-70,72} PEH actions were collective decisions and actions based

Table 2. Results of the articles analyzed according to author, year of publication, objectives and key elements.

Author and year of publication	Objective	Key elements for meta-synthesis
Abdalla IG, Stella RCS, Perim GL, Aguilar-da-Silva RH, Lampert JB, Costa NMSC (2009) ¹	To present and analyze the pedagogical axis of undergraduate course in medicine	Teaching institutions: Experiences of educational institutions and coordination between education and service
Arruda MP, Araújo MP, Locks GA, Pagliosa FL (2008) ³	To describe experience of PEH in the medicine course and the teaching staff of the <i>Universidade do Planalto Catarinense</i>	Concepts: PEH as a professional and personal development practice; teamwork Educational institutions: Experiences of educational institutions educator facilitates learning
Barreto ICHC, Andrade LOM, Loiola F, Paula JB, Miranda AS, Goya N (2006) ⁴	To describe implementation of PEH in teaching-health institutions	Concepts: PEH as discussion and transforming practice starting from the team and the reality of work;
Bogus CM, Martins CM, Dimitrov P, Fortes PAC, Capucci PF, Nemes Filho A et al (2003) ⁷	To describe the permanent education process of health counselors	Political policies: formulation and implementation
Camps E, Calliat MC, Spalvieri M, Dante V (2003) ⁹	To develop a program of human resources training that has continuity of in the field of biochemistry	Educational institutions: experiences with active methodologies, improved quality and professional attention
Carotta F, Kawamura D, Salazar J (2009) ¹⁰	Description and analysis of facilitators of permanent education and the establishment of a center for permanent education in health	Strategies, strengths and difficulties: hub of permanent education in health, facilitators, team supervision, critical reflection of the work process, rounds of conversation, collective solutions
Ciconet RM, Marques GQ, Lima MADS (2008) ¹³	To report the experience of permanent education with workers in a pre-hospital emergency care service	Concepts: PEH as discussion practice, which articulates experienced situations and everyday experiences Strategies, strengths and difficulties: Routine and service demand as an obstacle, review of clinical protocols, management support service
Costa CCC, Bezerra Filho JG, Machado MMT, Machado MFAS, Jorge AC, Furtado AAA et al (2008) ¹⁴	To analyze the technical staff of the nursing course from the view of supervisors	Concepts: PEH as a linkage between theory and practice and reflective discussion Strategies, strengths and difficulties: strengthening partnerships between different spheres Public Policy: the need for investment to improve training Educational institutions: active teaching and learning techniques
Costa e Silva V, Rivera FJU, Hortale VE (2007) ¹⁵	To describe experience of integration between health services and analyze their contribution to the development of integrated care practices	Concepts: PEH as a continuous reflective practice guided by reality of the service and comprehensive care
De Marco MA (2006) ¹⁶	To demonstrate the implementation of biopsychosocial care model in the training of graduate students	Educational institutions: experience in which the student is the target of actions and also transforming agent
Demers AL, Marary E, Ebin VJ (2011) ¹⁹	To describe the development of collaboration to provide continuing education opportunities	Educational institutions: technological advances as a way of innovating teaching, questioning as a teaching strategy
Dreisinger M, Leet TL, Baker EA, Gillespie KN, Haas B, Brownson RC (2008) ²⁰	Using evidence-based public health to analyze professional practices	Public policy: formulation and implementation of policies to improve clinical reasoning and quality of care
Feliciano KVO, Kovacs MH, Costa IER, Oliveira MG, Araújo AMS (2008) ²¹	To conduct ongoing evaluation of permanent education in the context of children's health care	Strategies, strengths and difficulties: collective reflections on practice, interdependence of professional autonomy, insufficient number of professionals hinders in-depth work Public policies: strategies in line with Ministry of Health priorities

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Continuation

Fortuna CM, Franceschini, TRC, Mishima SM, Matumoto S, Pereira MJB (2011) ²²	To chart the movements and triggered effects on the DRS-III region of the course for permanent education facilitators	Concepts: PEH as a network of rounds of conversation, taking democratic positions Strategies, strengths and difficulties: constructing shared responsibility, including facilitators, encourages autonomy
Horta NC, Sena RR, Silva MEO, Oliveira SR, Rezende VA (2009) ²⁷	To identify actions to promote health prevalent among members of the FHS, identify the existence of inter-sectorial actions	Concepts: Related to continuing education through courses and transfer of records Strategies, strengths and difficulties: trainings occur sporadically, work overload, importance of reflecting on the everyday
Jones M, Tyrer A, Kalekzi T, Lancashire S (2008) ²⁸	To examine the impact of mental health care teams' of knowledge of practice and well-being on evidence-based practices	Strategies, strengths and difficulties: teamwork, involvement and therapeutic collaboration
Kleba ME, Comerlato D, Colliselli L (2007) ²⁹	To report the experience of a training course involving managers, bringing to debate the challenges inherent in social participation	Concepts: active and investigative methodology, through grasping reality Educational institutions: the experience of educational institution in applying PEH concepts and contributing to work empowerment
Lazarine CA, Francischetti I (2010) ³⁰	To describe the perception of teachers Professional Practice Unit and tutors regarding the permanent education program	Concepts: questioning and transforming continuous practice, exchanging experiences Educational institutions: including facilitators in the teachers' PEH process
Lima SG, Macedo LA, Vidal ML, Sá MPBO (2009) ³¹	To assess the impact of a permanent education and training program on SBV and SAV and nursing professionals' knowledge	Strategies, strengths and difficulties: professionals report the importance implementing PEH, but there is no incentive, excess demand and workload
Maciel ELN, Figueiredo PF, Prado TN, Galavote HS, Ramos MC, Araújo MD et al (2010) ³⁴	To evaluate the contribution of the post-graduate family health course and changes to practice resulting from it	Concepts: personal. Continuous social and professional improvement Educational institutions: conceptual training experience for changing clinical practices that are produced in complex and changing work environments
Marães VRFS, Martins EF, Junior GC, Acezedo AC, Pinho DLM (2010) ³⁵	To submit a proposal for an innovative educational project for an undergraduate course	Educational institutions: experience of implementing course focused on humanist, critical and reflective practice, and meaningful learning and team work
Marques ES, Cotta MM, Franceschini SCC, Botelho MIV, Araújo RMA, Junqueira TS (2009) ³⁶	To identify the significance of breastfeeding for professional working in the Family Health Care Program	Strategies, strengths and difficulties: lack of investment in training and ongoing raising awareness Educational institutions: the need to train professionals to meet social demands
Matos E, Pires DEP (2009) ³⁸	To know care practices which enhance health care from the perspective of comprehensiveness and interdisciplinary actions	Concepts: practice strengthens interdisciplinarity, problem-solving, based on the reality experienced Strategies, strengths and difficulties: team meetings, multidisciplinary visits to beds, case studies, conferences with families, meeting in the waiting room, making joint decisions
Matumoto S, Fortuna CM, Kawata LS, Mishima SM, Pereira MJB (2011) ³⁹	Presenting the motion to reframe the meanings of clinical practice, from a wider clinical perspective and permanent education	Concepts: analysis and reflection on everyday work Strategies, strengths and difficulties: lack of technical support, need for clinical care, questioning, personal disputes between workers, users and managers
Medeiros AC, Pereira QLC, Siqueira HCH, Cecagno D, Moraes CM (2010) ⁴⁰	To know PEH based management strategies constructed by nurses	Concepts: transforming care practices through sharing everyday experiences Strategies, strengths and difficulties: spaces for exchange of knowledge, autonomy, team building, management strategies

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Montanha D, Peduzzi M (2010) ⁴⁴	To analyze the needs assessment for the implementation of educational activities for nursing staff and expected results	Concepts: problem-solving and transformative practice based on the reality of work; directly and indirectly related to continued education Strategies, strengths and difficulties: collective and autonomous decisions, critical thinking, educational activities focused on solutions for specific problems
Monteiro MI, Chilida MSP, Bargas EB (2004) ⁴⁵	To contextualize and analyze continuing education activities developed with cleaning industry workers at a university hospital	Strategies, strengths and difficulties: difficulty in coordinating PEH because of ideology of the work process, low levels of schooling as a factor which makes learning more difficult
Murofuse NT, Rizzotto MLF, Muzzolon ABF, Nicola AL (2009) ⁴⁶	To identify training activities attended by health care professionals	Concepts: Discussion strategies, democratization of workspaces Strategies, strengths and difficulties: activities focused on personal relationships, service quality, motivation and humanization. Provide courses in order to improve working conditions
Nicoletto SCS, Mendonça FF, Bueno VLRdC, Brevilheri ECL, Almeida DCS, Rezende LR, Carvalho GS, González AD (2009) ⁴⁷	To analyze the process of implementing PEH policies in Paraná	Concepts: Collective construction based on local demands related to changing practice, discussion and also associated with continued education Strategies, strengths and difficulties: discussions in PEH hubs, team work
Nunes MF, Leles CR, Pereira MF, Alves, RT (2008) ⁴⁸	To monitor dentists' training as PEH facilitators in permanent education hubs	Strategies, strengths and difficulties: teaching-service, appearance and skills acquisition, active transformation, discussion
Olson D, Hoepfner M, Larson S, Ehrenberg A, Leitheiser AT (2008) ⁴⁹	To describe a model of lifelong learning for public health education	Concepts: perception of lifelong education, continuous improvement
Paschoal AS, Mantovani MF, Méier MJ (2007) ⁵⁰	To discuss permanent, continuous and in-service education, together with nurses in a teaching hospital	Concepts: lifelong education encompasses continuing education and in-service education
Peduzzi M, Del Guerra DA, Braga CP, Lucena FS, Silva JAM (2009) ⁵¹	To study educational activities for workers in the primary care network from a micro-social perspective, aiming to analyze the practice of health care workers' educational activities according to PEH and continued educations	Concepts: PEH and continuing education as complementary concepts Strategies, strengths and difficulties: staff meetings, participatory teaching strategies, comprehensiveness in care, questioning Public policy: the need to expand the debate on PEH
Pessanha RV, Cunha, FTS (2009) ⁵²	To analyze the working process of nursing, medicine and dentistry professionals of multidisciplinary teams in a Family Health Care module	Concepts: PEH directly related to Continuing Education Strategies, strengths and difficulties: shared responsibility, on the job learning, teamwork, autonomy
Ricaldoni CAC, Sena RR (2006) ⁵³	To analyze the effects of permanent education actions on the quality of nursing care	Concepts: problem posing pedagogy as transforming reality Strategies, strengths and difficulties: stimulating reflection, however there disarticulation in understanding why, which undermines the quality of care
Robinson S, Murrells T, Smith EM (2005) ⁵⁴	To describe and analyze professionals with higher education based on mental health qualifications	Educational institutions: Career experiences reported as related to internship and supervision quality
Rodrigues ACS, Vieira GLC, Torres HC (2010) ⁵⁵	To report the experience of PEH processes through educational workshop for diabetes	Strategies, strengths and difficulties: educational workshops, case studies, educational games, contextualizing about the unpreparedness of the team, comprehensiveness. High demand drives the prescribing practices

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Continuation

Rodrigues RRJ (2001) ⁵⁶	To create a space for employees to discuss topics which could contribute to their inter-personal development	Concepts: continuous personal and professional improvement in order to enhance interpersonal development Strategies, strengths and difficulties: establishing a relationship, self-awareness, interpersonal relationships
Rossetto M, Silva, LAA (2010) ⁵⁸	To know PEH actions with community health workers	Strategies, strengths and difficulties: courses held according to internal demands, currently discontinuous, unsystematic and technologic Public Policy: the need to formulate and implement policies to expand the PEH debate
Smeke ELM, Oliveira NLS (2009) ⁶³	To evaluate education practices in health developed in SUS centers, while implementing the Family Health Care Program	Concepts: Construction of shared concepts, ethical-political reflection of the meanings Strategies, strengths and difficulties: co-managing responsibility, reframing the actions, demand pressure hinders establishing educational groups
Sousa MF, Merchán-Hamann E (2009) ⁶⁴	To analyze the implementing of the family health care program through the political, technical-financial and symbolic dimensions	Strategies, strengths and difficulties: permanent education centers, offering refresher courses, expansion of inter sectorial partnerships Public Policy: broadening the debate on PEH hubs to return to coordinating it
Souza RCR, Soares E, Souza IA, Oliveira JC, Salles RS, Cordeiro CEM (2010) ⁶⁵	To investigate users' requests to the ombudsman regarding nursing care and discuss their contribution to permanent education	Strategies, strengths and difficulties: the importance of ombudsman for professional improvement, evaluation process, questioning, knowledge based on everyday occurrences in that place
Sudan LCP, Corrêa AC (2008) ⁶⁷	To understand meanings attributed by nursing course alumni, experiences of educational activities together with health care workers in health care services and supervise placements	Educational institutions: educational activities coordinated with the health service
Tanji S, Silva CMSLMD (2010) ⁶⁸	To identify conflicts in day-to-day work during a specialization course	Concepts: Integration between teaching-work, synchronizing professionals, students and faculty, and discussion related to continuing education Strategies, strengths and difficulties: active methodologies, practices in line with the individual and collective levels Educational institutions: Include teaching job-citizenship from the perspective of discussion
Tavares CMM (2006) ⁶⁹	To analyze a mental health nursing teams' need for permanent education	Concepts: PEH related to Continued Education Strategies, strengths and difficulties: network does not discuss PEH, individuals who drive choices and training
Tronchin DMR, Mira VL, Peduzzi M, Ciampone MHT, Melleiro MM, Silva JAM, et al (2009) ⁷⁰	To identify, characterize and analyze educational practices developed with health care professionals in hospitals	Strategies, strengths and difficulties: little debate on comprehensive care, traditional teaching strategies activities originating from internal demands, discussion
Ximenes Neto FRG, Sampaio JJC (2007) ⁷²	To create a sociodemographic and educational profile of PEH area managers, to identify types of qualification and permanent education	Concepts: Reframing labor proceedings in the territory and in service Strategies, strengths and difficulties: teaching-service, little investment in professional development
Yaping D, Stanton P (2002) ⁷³	To improve and describe the health management training program in China	Educational institutions: teaching-service with integrated approach, need for improved student participation

on discussed practices that were based on learning moved to the service environment, with the action-reflection-action concept guiding focus.⁵⁵ In the formulations of Paulo Freire, discussion is given a meaning of critical insertion into reality in order to draw out elements which give meaning to learning and takes into account personal implication and the interactions between different subjects who learn and teach.⁵ The construction of knowledge and meaningful learning is a defining feature of the appropriation of information and explaining reality.⁶

From this, the professionals' information on real work situations is perceived and discussed as a permanent training process in which theoretical, practical and contextual knowledge are approached in all their complexity.^{17,51}

In the services studied through the articles, the participants indicated that discussion was essential in learning and in work relationships, as it provided continuous and articulated support in practice.¹¹

This process was only possible when it was linked with discussion and with team coordination,^{47,51,55,68} necessary for deconstructing the prevailing hospital-centric care model.⁶⁹ Thus, collective decision making was seen as a way of overcoming difficulties, responsibilities were divided and co-management assumed as a way of facilitating the process. In addition, it was assumed that interdependence of professional autonomy better maintained group relationships.^{21,27,38,63}

Training was another established practice in health care sectors. Twelve studies pointed out the importance of creating and maintaining PEH spaces³⁹ through collective planning and development of training based on discussion^{36,40} of demands from the territory and the professionals and population who found themselves there. This procedure facilitated updating scientific techniques,⁴⁸ constructing teamwork and communication.⁴⁰ There was also emphasis on traditional courses which did not consider on-the-job learning, or the local context, having no effect on the day-to-day activities of the services.^{11,15,47,64}

Of the practices that facilitated PEH implementation and administration are PEH hubs, instituted as part of public policy, as spaces for dialogue and negotiation between those involved in SUS actions and services and educational institutions.^{10,25,47,48,64,e} The hubs are spaces for identifying needs and creating strategies and policies in the area of training and development, from the perspective of increasing quality of administration, quality and improving comprehensive health care, from

the popularized field of the wider concept of health and strengthening social control of the SUS.^f

The main benefit of these practices in the services are linked to the existence of dialogue in rounds of conversation, constituted by discussion groups formed by professionals from health care institutions and facilitators of the hubs, with positive affirmations related to commitment with work, strengthening the teaching-service integration, preparing the professional through developing their critical and creative capacities and encouraging a pro-active attitude.^{47,48,55}

Between 2005 and 2006, 96 PEH hubs were established in Brazil, with the participation of more than 1,400 individuals involved, including stakeholders from institutions, health care professionals, managers and educators.⁴³ However, the lack of continuity in investment, little commitment on the part of managers, difficulty in constructing a flexible working dynamic and power struggles resulted in a reduction in spaces, and in them being established more slowly.^{22,41,48} This can be observed by the fact that only seven^{10,22,25,47,48,64,f} of the 48 articles discussed permanent education hubs.

The hubs were related to integration between the university-service-community^{4,10,22,55,64} as a way of drawing closer to local circumstances, as well as supporting a critical-reflexive practice in the changeable day-to-day activities of the health care services.³² For this integration to be possible, the need for investment in new technologies, such as distance learning, computerized systems and pedagogic innovation was emphatically discussed.^{4,19}

Discussion of the difficulties of establishing and managing PEH within the services indicated the following challenges to teaching-working-citizenship coordination; low availability or high turnover between sectors on the part of the professionals, irregular distribution with large concentrations in urban centers and more developed regions, increasing specialization and dependence on more sophisticated technologies, the prevalence of hospital training, inaccurate ideas about comprehensiveness and health promotion and cracks within teams concerning training and meeting.^{4,19,25,38,47,56,68,72}

Traditionally, training is talked about as if the workers could be administered as just one more component in a range of material, financial or infrastructure resources, as if it were possible to just "assign" abilities, behavior and profiles to workers in the sector, so that services and activities could be established with the desired

^e Ministério da Saúde. Pólos de educação permanente em saúde: política de educação e desenvolvimento para o SUS, caminhos para a educação permanente em saúde. Brasília (DF); 2004.

^f Pinheiro R, Ceccim RB. Experimentação, formação, cuidado e conhecimento em saúde: articulando concepções, percepções e sensações para efetivar o ensino da integralidade. In: Pinheiro R, Ceccim RB, Mattos RA, editores. Ensinar Saúde: a integralidade do SUS nos cursos de graduação na área da saúde. Rio de Janeiro: UERJ, CEPESC, ABRASCO; 2006. p.13-35.

quality. Work requirements, however, cannot be considered a synonym of work actually done, as practice is, very often different to what is predicted and prescribed in theory.⁸ The most significant limiting factor in implementing PEH, according to analysis in 15 articles,^{22,27,31,39,40,45-47,51,56,58,64,69,70,72} was related to managers and management due to lack of debate about comprehensive care, pressured by service demands and pedagogical and resource limitations.^{34,53,69,72} The lack of coordination by the various managers responsible for the same program, compartmentalizing into professional categories, was attributed to the fact that the professionals participating in planning never or rarely updated their knowledge and skills.⁷¹

In addition, the lack of articulation between teaching-service-community proved to be an important point in the lack of implementation of PEH processes, as it did not put into effect planned actions and define need for action randomly.²⁵

Thus, the strategies, strengths and difficulties related to PEH are interconnected based on the categories presented and enable collective reflection on working for the SUS.⁴³ This is the core of the greatest challenge: producing questioning about care actions and place work under discussion, ethically and politically, on an individual and collective level.⁴²

Conflicting processes are part of everyday life and learning to deal with them is a way of broadening analytical capacity concerning oneself, others and the context, thus increasing the possibility of taking action regarding these situations. Therefore, conflicts “provide the possibility to include and produce change, moving individuals from conservation to transformation”.⁴²

This transformation involves not only pedagogy and teaching and learning processes, but also a profound critical incorporation of material technologies, such as clinical efficacy, patterns of listening, relationships established with users and between professionals.¹²

Public policies for permanent education in health

The principle categories of this key element are formulating and implementing public policies and need to amplify debates on the topic.

Coordinating education and work should guide training and management, committed not only with the quality of the technique, but combined with the needs of the population.⁷¹ The principal is in the need to formulate or reformulate and establish policies. Thus, the first step is to construct a national diagnosis of the problem,⁴⁸

identified failures in management and administration and not consistent with Ministry of Health indications.²¹

In addition, new policies need to be constructed collectively, with the focus on subjects involved, professors, students, users, professionals, managers and community.⁶

From the point of view of eight studies^{7,20,21,46,48,49,51,58} analyzed, an indispensable data was the availability of financial and human resources to operationalize the work, a very high cost/benefit relationship would result in exhausting these resources. On the other hand, difficulty in practicing integrality in health care is a component which encourages corporatism and prioritizes hospitals in public policies, to the detriment of primary care.⁷⁰

This combination often results in programs with fragile structure, applied by non-integrated professionals with little awareness of the overall objective of the project and generally interested in specific technical aspects.⁷¹

Important initiatives were taken after the Ministry of Health created the Department of Labor Management and Health Education (SGTES), along with the Departments of Education Management and Regulation of Labor in 2003. Thus, the institution took on its role of formulating and executing Human Resources policies for the Brazilian Unified Health System with more clarity.^h

After this, the National Permanent Education Policy (2003); the SUS National Bureau of Permanent Negotiation (2003); the National Bureau of Permanent Negotiation (*Pró-saúde*, 2005); National Guidelines for the Preparation of SUS Workers' Career Plans, Positions and Salaries (2004); the National Occupational Health Network (2005); the drafting of the Basic Operational Human Resources Norm (NOB/RH-SUS, 2005) followed.^{70,h}

However, we observed the need to coordinate the experiences and transformations of PEH in the services with the structural and pedagogical changes in teaching and training institutes.

As they were organized, the majority of teaching institutes, disconnected from the health care network, deprived the educational capacity of other settings, especially the service. Considering that all of the institutions have a secondary educational effect, adding to the professional's initial training, the teaching-service connection is imperative, as knowledge after the health care worker's educational training is primarily acquired through work.⁶⁶

⁸Ministério da Saúde. Portaria GM/MS no 1.996/07, de 20 de agosto de 2007. Dispõe sobre as diretrizes para a implementação da Política nacional de educação permanente em saúde. *Diário Oficial União*. 22 ago 2007 [cited 2012 Jan 24]. Available from: <http://www.saude.gov.br/sgtes>

^hMinistério da Saúde. Secretaria de Gestão do Trabalho e da Educação na Saúde. Política nacional de educação permanente em saúde. Brasília (DF); 2009.

Training institutions in permanent health care

The analysis of 12 articles,^{1,10,14,16,19,29,30,34,35,67,68,73} dealing with this key element shows that the experiences of teaching institutions are based on discussion and construction geared towards PEH, providing a meeting place for training inter-disciplinary professionals with the capacity for critical reflection.²

The principal notion observed was reflection of practices in real contexts of the services, especially in graduate and postgraduate level institutions.¹² Pedagogy which discusses the teaching process was mentioned as an instrument which provides support in practice and guides the students in the work universe.^{3,8,9,14,16,35,67,73}

The teaching-service connection prioritizes education needs related to real exercises, giving a new view of teaching, in which the students become subjects responsible for their own learning.³

A criticism which appeared in four^{1,14,33,66} articles referred to curriculums being organized by discipline, practice adopted in many health sector courses, characterized by fragmentation of contents and disconnection with the work process, which makes it more difficult to form alumni with the capacity for critical reflection.⁶⁷

From this perspective, it is emphasized that the institutions have the responsibility and the potential to strengthen the process of empowering those involved in their different areas of insertion.²⁹ The partner institutions are a *sine qua non* condition for effectively establishing PEH and improving the quality of the health sector.⁶²

In an attempt to jump-start this process, the Federal Government and the Ministry of Health Department of Labor Management and Health Education, in partnership with the Ministry of Education and the PAHO/WHO, launched the *Pró-Saúde* program (National Program of Reorientation of Vocational Training) in 2005. Initially aimed at courses in Medicine, Nursing and Dentistry,

it was broadened to other areas of health in 2007, and its main objective is to integrate teaching-service, promoting transformations in the processes of producing knowledge, of teaching and learning and of providing services to the population. In addition, *Pró-Saúde* aims to establish cooperation mechanisms between SUS administrators and schools, aiming to improve the quality and problem solving ability of the care provided to the citizen, by integrating the network of public health care services and the training of health care professionals at graduation and in permanent education.¹

CONCLUSIONS

Returning to the research question on how PEH has been understood concerning its theoretical and methodological assumptions and its results and the practical content of the services, we conclude that both compositions – health and education and work and education – are involved through political, social and economic processes and personal desires and demands, ideological thinking, professional and disciplinary differences and teaching institutions. They are also permeated with difficulties concerning material, management and human resources infrastructure, to develop or continue to multiply and apply permanent education.

Thus, implementing teaching and learning processes which are backed by critical-reflective and participative action becomes an even greater challenge than promoting changes in the different circumstances in each service.

To conclude, it can be inferred that the education and health connection is based both on the actions of the health care service as well as on those of management and of teaching institutions. To achieve the goals set by the PAHO/WHO and Ministry of Health documents, PEH proposals need to be conducted with professionals from the services, and teachers and professionals from educational institutions in order for new changes in the structure of work and teaching to be incorporated.

¹ Ministério da Saúde. Secretaria de Gestão Programa Nacional de Reorientação da Formação Profissional em Saúde. Pró-saúde: objetivos, implementação e desenvolvimento potencial. Brasília (DF); 2007.

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