

Action research in the healthcare field: a scoping review

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ABSTRACT

Objective: This scoping review aimed to explore international literature related to the application of action research in studies in the healthcare context.

Introduction: Action research is an approach that involves collaboration to develop a process through knowledge building and social change. Several viewpoints of action research have been introduced as the different traditions of developed action research. To develop a coherent process, researchers have to posit their worldviews and theoretical framework and align these with the research aims and procedures, and local transformation needs. This diversity leads to a variety of action research practices in healthcare. Particularly, in this review, we raised the need for examining participants' experiences and changes related to the action research process.

Inclusion criteria: This scoping review considered studies that included any professional healthcare provider, patient or recipient of healthcare products or services involved in action research. Studies that used the action research methodology in the healthcare context were included. All quantitative and qualitative studies were considered. The quantitative component considered experimental and epidemiological studies, whereas the qualitative component considered studies that focused on qualitative data.

Methods: A three-step search strategy was used in this review. MEDLINE, CINAHL, Web of Science, Social Sciences, ERIC, PsycINFO, Health Source, ScienceDirect, Wiley and SciELO databases were searched with no publication date limitation. Studies published in English, Portuguese and Spanish were included. The data were extracted using a charting table, which was developed to record key information from sources relevant to the review question. The findings were descriptively presented, with tables and figures to support the data when appropriate.

Results: We included 124 studies with different aims and procedures. The levels of participation ranged from no real input into or influence on the research process to democratic knowledge sharing and collective understanding. The action research processes occurred in diverse settings in the healthcare context, and participants with different objectives and demands took part in the research.

From study objectives, knowledge building, and social change data, we developed three domains and categorized the studies. In general, Europe and Australia published more studies in the organizational domain and mainly had healthcare stakeholders as participants. North America published more studies in the individual domain, and Latin America, the continent with a higher percentage of publications, published studies that were more frequently related to the collective domain. Asia and Africa did not have a consistent number of publications. There was a major repercussion on the health promotion perspective in North America and Latin America.

Conclusions: There are several ways of conducting action research in healthcare that consider the researcher's aims and theoretical assumptions. Further qualitative systematic review questions may arise from the results and conclusions of this scoping review.

Keywords Action research; community-based participatory research; knowledge building; participation; participatory research

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Introduction

Action research has been scrutinized by many researchers all over the world and is now a component of many participatory inquiries. Kurt Lewin first coined the term in the 1940s,^{1,2} and later in the 1970s, action research was influenced by different traditions and began evolving in many fields of knowledge.^{3,4} Nowadays, it is recognized as effective in knowledge sharing, promoting change and problem-solving⁵ in participatory research processes.

Action research principles have been discussed by many authors, generating a range of propositions.⁶⁻⁹ We advocate that there are four main principles that remain intact in every form of action research that unfolds, such as participatory action research, community-based participatory research, rapid rural appraisal, etc. These principles are: i) participation and collaboration (even though different levels of participation are assumed)¹⁰; ii) a cycle of planning, action, observation and reflection; iii) knowledge building that considers participants' realities; and iv) social change and problem-solving.¹¹ Researchers may choose a variety of methods, techniques and strategies to address the principles and ensure a participative, reflective and transformative process in which every person involved has the chance to share and contribute their knowledge and experiences. In addition, the action research process must be adapted to the context in which the research takes place.^{6,7}

Besides having common principles, there are multiple stances regarding action research in relation to the level of participation, understanding of the methods and methodology, and research aim. These stances are the consequences of action research traditions established in the 1970s, particularly as northern and southern traditions of action research.^{3,11}

Some specialists state that action research consists of a family of approaches¹² and is oriented towards inquiry,¹³ thus it lacks previous theoretical underpinnings. Having an orientation towards inquiry is influenced by the northern tradition, which is more pragmatic. When used this way, action research becomes a research method for data collection and procedures.^{14,15} Therefore, research aimed at solving an organizational problem, presenting content/theories/protocols and developing a paradigm for the standard way to act or do

something will preferably employ action research. The USA, Canada, European countries and Australia tend to carry out participatory research to address a practical problem such as the lack of sustainable resources in a hospital,¹⁶ occupational health safety issues,¹⁷ and concerns regarding clinical practice.¹⁸

On the other hand, specialists using action research as a methodology point to specific methods and strategies in the research design.¹⁴ The methodology relates to the epistemological and theoretical perspectives assumed by the researcher and are driven by the research aim. This is the southern tradition of action research that aims to transform society by embedding political and social elements, with its central themes being power relations, social inequalities and disparities, and striving for rights and awareness.¹⁹ Thus, a critical sociological understanding is needed to explain health status, epidemiological profiles and labor processes.²⁰ Instead of solving pragmatic problems, this type of action research seeks to explore complex social problems that involve policies and social relations.

Action research carried out in developing countries is supposedly guided by the southern tradition due to the nature of the methodology. Its goal is emancipation through critical consciousness and social justice. Therefore, from a philosophical perspective, the methodology falls under the critical paradigm. There are also differences among researchers who share the southern tradition, since the critical paradigm encompasses a range of approaches. It is notable that the deeper the understanding of health inequalities, the more comprehensive the proposal for action. Complex social problems may be addressed in the action research process, such as training Indigenous youngsters to become health educators,²¹ recognition of a territory's social needs, and development of actions to address these needs²² as well as approaches to integrate workers, the health system and environmental health.²³

Despite the variations in the northern and southern action research traditions, research has extended to incorporate multiple possibilities. However, regardless of the origin and aims of the research, it must be aligned with the theoretical underpinnings and methodological assumptions, and researchers need to adopt a coherent approach to

their inquiry. Consequently, action research in developing countries is largely influenced by the northern tradition, and developed countries might adopt the southern tradition of action research for primary research as well. As varied problems exist in healthcare contexts, action research propositions might address local needs. More important than determining which tradition underpins the action research is choosing which action research proposition is better suited to each research aim, objective and theory in order to build a coherent research framework.^{14,24}

Other previous reviews of action research also exist. Waterman *et al.*²⁵ carried out a systematic review regarding efforts in the healthcare field in the United Kingdom to define action research, identify and analyze the publications in the country, and develop a guide for action research proposals. Viswanathan *et al.*²⁶ used the definition of community-based participatory research examining conceptual studies in a systematic review. Boote *et al.*²⁷ reviewed primary studies as they were interested in participants' collaboration in healthcare research published from 1995 to 2009. Although reviews of action research have been carried out, none of them investigated and synthesized how researchers have been using action research principles in primary studies. The *JBIR Database of Systematic Reviews and Implementation Reports* and the Cochrane Database of Systematic Reviews were searched to check if other scoping reviews on this topic had been conducted.

We advocate the relevance of action research to promote social change, which is fundamental to healthcare, where the health-illness process is widely known to be influenced by social groups and how they work and live.²⁸ Thus, this scoping review shows that action research might be developed by several perspectives both philosophically and methodologically. Before providing empirical interventions, the researcher's main task is to align their worldview and a consistent theory with the local needs and research objectives. These elements will shape the research practice and ensure the quality and scientific rigor of action research, thereby providing more reliable findings that might be useful for evidence-based healthcare practice and the continuous development of action research.

Objective

This scoping review sought to explore the international literature related to how action research has been applied in studies in the healthcare context. Specifically, the review intended to show the extent to which study participants were engaged in the research process and describe how research objectives, knowledge building and social change were embedded in action research studies.

Inclusion criteria

Participants

This review considered action research-based studies that included any professional healthcare provider, patient or recipient of healthcare products or services in this field.

Concept

The concepts of interests were the description of the action research objectives as well as its procedures, that is, the operationalization of action research. Within literature, various terms, such as "participatory action research", "community-based participatory research", "rapid rural inquiry" and others have been used interchangeably with minor differences to define a participative cyclical research process that generates knowledge and changes in practice. For the purpose of this review, we included primary study processes based on researchers' propositions regarding prominent action research, which described the level of participation and participants' engagement, the process of knowledge building, and transformations in practice.

Context

This scoping review considered action research studies in any healthcare setting, including social settings where healthcare services were provided, such as nursing homes, schools, working environments, etc.

Types of sources

This scoping review included all qualitative and quantitative primary studies that met the inclusion criteria for participants, concept and context.

Exclusion criteria

Studies that lacked information and descriptions on data extraction that prevented us from completing

the data extraction chart, and articles on studies that were only partly based on action research principles were excluded. These exclusion criteria were adopted because the lack of information regarding the entire action research process prevented the analysis of the rationale for the studies, procedures and/or the study aims in relation to categorization of the studies, which was done through data extraction.

Methods

Search strategy

The search strategy was developed with the assistance and guidance of a library scientist. Due to the considerable amount of publications about action research, the search strategy was designed to find only published research articles.

The search strategy and the entire review process was based on the Joanna Briggs Institute scoping review methodology.²⁹ Therefore, a three-step search strategy was used in this review. An initial limited search in MEDLINE and CINAHL was undertaken followed by an analysis of the titles, abstracts and index terms used to describe the articles. A second search using all identified keywords and index terms was then carried out on all included databases. Third, the reference lists of all identified reports and articles were analyzed for additional studies. Studies published in English, Spanish and Portuguese were considered. These languages were included as 90% of the scientific research is in English, and there are influential authors in participatory research from Latin America, for example, the Brazilian Paulo Freire and others.

There was no date limit for the search. The search databases included MEDLINE, CINAHL, Web of Science, SOCIAL SCIENCES, ERIC, PsycINFO; Health Source: Nursing/Academic Edition; ScienceDirect, Wiley, and SciELO.

The initial keywords included:

- action research, community-based participatory research, community-based action research, participatory research, mutual inquiry, feminist participatory research, community-partnered participatory research, collaborative research, cooperative inquiry, participatory rural appraisal, participatory learning research;
- health-care disparities, social change, social justice, social transformation, health inequality*,

inequality*, social participation, collaboration, problem solving, capacity building

- method*

Databases were searched from February 27 to March 25, 2015 and updated from May 30 to June 17, 2016. Two reviewers were involved in the selection of studies.

Extraction of results

Data were extracted using an instrument developed according to the proposed scoping review protocol.¹¹ Charted information comprised:

1. *Authors*
Citation details included the last name of the authors (Vancouver referencing style).
2. *Study title*
Cited exactly as published.
3. *Year*
Year of the paper publication.
4. *Country/city of origin/context*
The research location was provided when relevant to other data extraction items. Research setting/context was provided (e.g. primary healthcare, community level, hospital ward, maternity, school, etc.).
5. *Study objective*
A clear description of the study's objective was stated. In some cases, it was not presented in the paper, in which case we defined the objective based on the results and study considerations.
6. *Research approach*
Since action research is a family of approaches and its terminology may vary according to the influencing tradition, the studies' approaches were stated (e.g. action research, participatory action research, community-based participatory research, cooperative inquiry, etc.).
7. *Cited principles*
The "Background" presented in our scoping review protocol guided the extraction of action research principles described in each of the study's method/methodology (participation/collaboration; a cycle of planning, action, reflection and observation; knowledge building; social change/practice transformation).
8. *Cited authors*
Due to different traditions and effects of action research, prominent scholars cited in the studies were presented.

9. *Action research cycle*
Action research phases (planning, action, reflection, and observation) described in the studies were indicated.
10. *Type of participation*
There are different levels of participation in action research. To classify the participants' engagement in the action research, we considered Cornwall's participation levels as follows:
 - "Co-option: where token representatives are chosen but have no real input or power in the research process
 - Compliance: where outsiders decide the research agenda and direct the process, with tasks assigned to the participants and incentives being provided by researchers
 - Consultation: where local opinions are sought but outside researchers conduct the work and decide on a course of action
 - Co-operation: where local people work together with outside researchers to determine the priorities of the research objective, with the responsibility remaining with outsiders for directing the process
 - Co-learning: where local people and outsiders share their knowledge to develop a new understanding and work together to form action plans, with outsiders providing the facilitation
 - Collective action: where local people set their own agenda and carry out the research in the absence of outside initiators and facilitators."^{10(p.96)}

The most precarious levels of participation are co-option, compliance and consultation, while the most democratic levels are co-operation, co-learning and collective action.
11. *Social change*
Actions taken during the process and/or as a result of the action research were stated, which included changes in participants' practices, habits and behaviors, as well as transformations in the respective research setting.
12. *Knowledge building*
Knowledge shared, acquired and built in the action research process was provided. This included self-understanding, technical/scientific information, group communication, agreement and consensus.

Results

Study inclusion

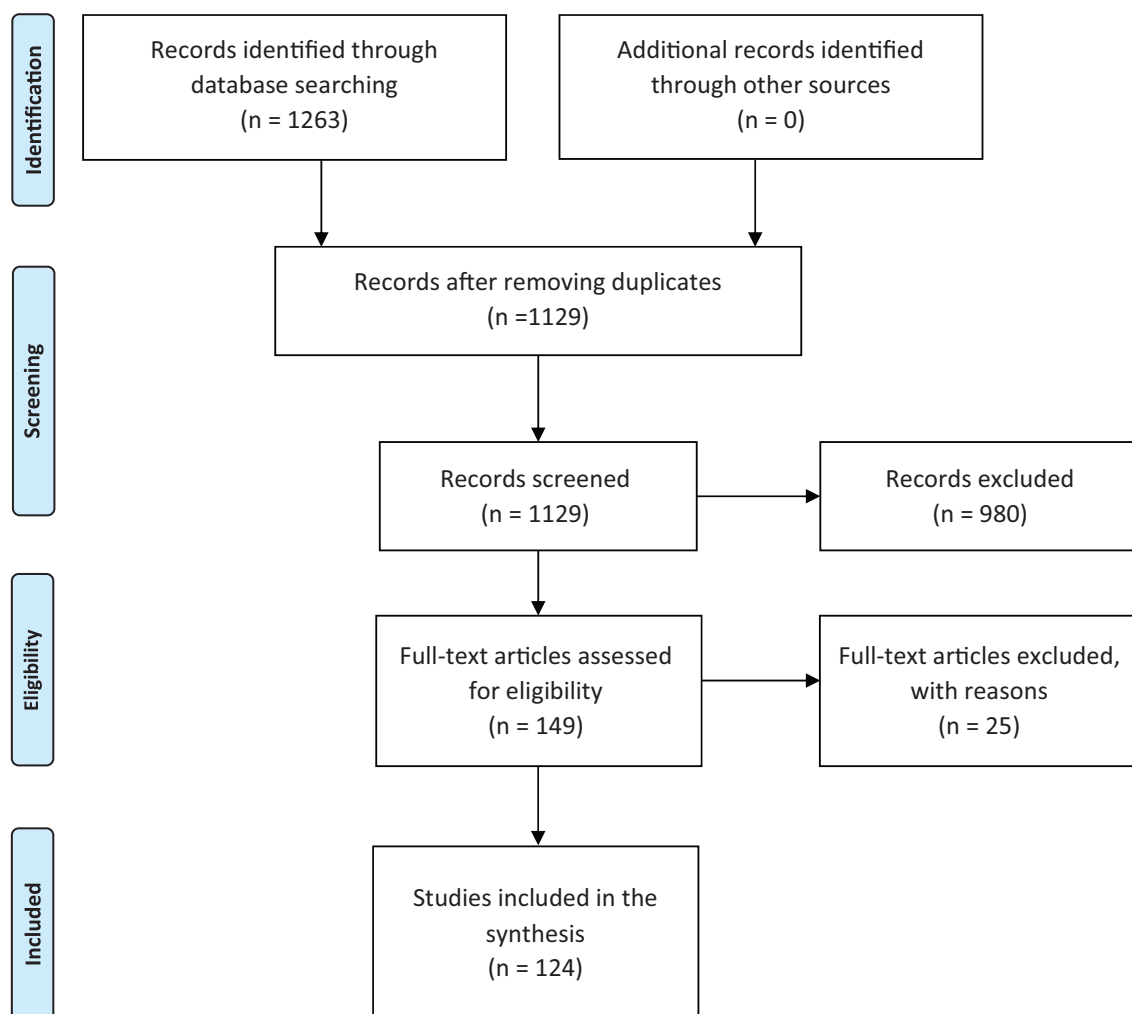
The search strategy identified a total of 1263 studies (Appendix I). After excluding 134 duplicate citations and 980 irrelevant studies (according to the inclusion criteria aforementioned), 149 studies were selected for full text examination to determine the relevance to our inclusion criteria. No articles were added by hand searching. Thereafter, 25 articles were excluded (Appendix II) since they did not meet the inclusion criteria. Finally, 124 articles were included (Figure 1 and Appendix III).

The included studies were published after 1996, and almost half of them were published from 2011 to 2016. Most of the studies were conducted in Latin America, followed by North America, Europe and Australia; Asia and Africa published fewer studies compared to other continents (Table 1).

Several action research studies conducted in America, Europe and Australia were cited. Likewise, some phases of the research cycle (planning, action, observation and reflection) were not congruent with the determined criteria or logic. Although every article included descriptions of the planning and action phases, only 40 of them included all the four phases.^{16-18,21-23,25,30-64}

Participants included in these studies were classified according to their health status (ranging from those with acute, chronic and occupation-related diseases or those at risk of developing them [classified in Table 1 as *disease risk people*]); social situation (minority groups, such as indigenous, refugees, immigrants, black and Latin people living in the USA, disabled people, women in disadvantaged situation, *favela* residents, and rural populations); involvement in healthcare provision: healthcare stakeholders, including healthcare professionals (both in healthcare services and schools, administration staff and decision makers, and grassroots leaders); and life stages (childhood, youth, old age, and pregnancy and breastfeeding).

Studies took place in different settings such as hospitals, other healthcare services (nursing homes; rehabilitation, mental health, HIV and cancer centers; disability organizations), primary healthcare and community centers, work environments (factories, restaurants and farms), daycare centers, schools and colleges.



Source: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097.

Figure 1: PRISMA flowchart of study selection and inclusion process

The results were presented by correlating data extraction information to demonstrate how action research methodology was applied in the healthcare context. We grouped all the studies by continents for a clearer presentation. Hence, based on studies' objectives, social change, and knowledge building descriptions, we categorized the publications into three domains (Table 1):

- Organizational: development of tools, knowledge and skills to enhance practices, capacities, communication and performance at work

- Individual: technical/scientific competence acquisition for habits/behaviorial change and health promotion
- Collective: collective engagement to benefit a group of people in a community (e.g. common area residents, Latin or Chinese people living in the USA, the black youth community) or people with similar needs and situations (e.g. Sudanese refugees, Brazilian immigrants living in Australia).

Table 1: Results presentation by crossing categorized data collection

DOMAIN				CONTEXT				PARTICIPANTS				ORIGIN						YEAR										
PARTICIPATION	Organisat onal	Individual	Collective	Total	Hospital	PHC/ Community services	Work setting	School/ College	Total	Disease risk people	Minorities groups	HC stakeholders	Life Cycle population	Total	Latin America	North America	Europe	Asia	Africa	Australia	Total	1996- 2000	2001- 2005	2006- 2010	2011- 2016	Total	% Total	
Co-option	2	5	0	7	0	3	3	0	1	7	0	2	2	7	1	3	0	1	1	1	7	0	2	1	4	7	5.60%	
Compliance	16	12	1	29	8	12	6	1	2	29	7	5	16	1	29	5	12	8	2	1	1	29	1	10	6	12	29	23.39%
Consultation	15	8	4	27	7	8	8	1	3	27	3	4	14	10	27	10	6	6	0	2	3	27	2	4	7	14	27	21.77%
Co-operation	8	5	2	15	6	4	1	1	3	15	2	3	8	2	15	2	2	6	3	0	2	15	2	2	7	4	15	12.10%
Co-learning	14	7	18	39	9	17	8	2	3	39	5	8	20	6	39	18	6	7	0	0	0	39	1	4	12	22	39	31.45%
Collective Action	2	2	3	7	1	3	1	1	1	7	1	2	4	0	7	3	2	1	1	0	0	7	0	1	2	4	7	5.60%
Total	57	39	28	124	31	47	27	6	13	124	21	22	64	17	124	39	31	28	7	4	15	124	6	23	35	60	124	
% Total	45.97%	31.45%	22.58%		25.00%	37.90%	21.77%	4.84%	10.48%		16.94%	17.74%	51.61%	13.71%		31.45%	25.00%	22.58%	5.65%	3.23%	12.10%		4.84%	18.55%	28.23%	48.39%		
YEAR																												
1996-2000	3	3	0	6	1	2	2	0	1	6	4	0	2	0	6	1	1	3	0	0	1	6					6	4.84%
2001-2005	16	6	1	23	11	4	6	0	2	23	2	3	15	3	23	2	6	12	1	0	2	23	18	50%			23	18.55%
2006-2010	17	11	7	35	9	15	5	3	3	35	6	8	16	7	35	11	10	5	3	0	6	35	28	23%			35	28.23%
2011-2016	21	19	20	60	10	28	14	3	7	60	10	13	29	9	60	32	25	14	8	3	4	60	16	35%			60	48.39%
Total	57	39	28	124	31	47	27	6	13	124	21	22	62	10	116	39	31	28	7	4	15	124						
ORIGIN																												
Latin America	10	12	17	39	8	20	5	1	5	39	4	8	17	10	39	19	6	7	0	0	1	39	16	35%			39	31.45%
North America	11	14	6	31	3	19	4	3	2	31	9	11	9	2	31	2	6	12	1	0	2	23	18	50%			23	18.55%
Europe	23	4	1	28	12	3	8	1	4	29	4	0	23	1	28	2	2	6	3	0	0	11	28	23%			28	22.58%
Asia	1	5	1	7	0	3	1	1	2	7	2	2	0	3	7	3	7	0	0	0	0	3	7	5.65%			7	5.65%
Africa	4	0	0	4	2	0	2	0	0	4	0	0	4	0	4	0	0	4	0	0	0	4	3.23%				4	3.23%
Australia	8	4	3	15	6	2	1	0	0	15	3	1	10	1	15	10	1	15	1	1	1	15	12.10%				15	12.10%
Total	57	39	28	124	31	47	27	6	13	124	21	22	63	17	124	39	31	28	7	4	15	124						
PARTICIPANTS																												
Disease risk people	5	15	1	21	1	7	5	5	3	21	3	0	2	2	21	4	8	17	10	3	1	21	16	35%			21	16.94%
Minorities groups	0	9	13	22	0	19	2	1	0	22	0	1	0	2	22	0	1	19	2	0	0	2	22	17.74%			22	17.74%
HC Stakeholders	51	3	9	63	27	14	19	0	3	63	50	81%																
Life Cycle population	1	12	5	18	3	7	1	0	7	18	14	52%																
Total	57	39	28	124	31	47	27	6	13	124	21	22	64	17	124	39	31	28	7	4	15	124						
CONTEXT																												
Hospital	27	2	2	31	25	0%																						
PHC/Community	8	23	16	47	37	60%																						
HC Services	18	6	3	27	21	77%																						
Work setting	3	1	2	6	4	67%																						
School/College	1	7	5	13	10	76%																						
Total	57	39	28	124	31	47	27	6	13	124	21	22	64	17	124	39	31	28	7	4	15	124						

Participation level

Guided by the conceptual framework for participation level,¹⁰ the participation levels were extracted according to the description of the proceedings considered to develop the action research process. Almost one third of the publications used co-learning participation, which means that there was a consistent engagement of every person involved in action research processes. On the other hand, compliance and consultation levels of participation combined were responsible for 45% of participants' precarious engagement. In addition, there was the same number of studies with co-option and collective action levels of participation (seven), challenging action research democratic and collaborative principles (Table 2).

When the participation level data were crossed with the research domains (organizational, individual and collective), organizational and individual domains were seen to have the poorest levels of participation, while the collective domain had the highest participant engagement (Table 3).

Another noticeable result was observed when we crossed the data on participation level with the continent of origin. Studies conducted in Latin America and Australia had higher levels of democratic participation in approximately half of their studies (co-learning: 46% and 53%, respectively). Precarious participation levels (co-option, compliance and consultation combined) were observed in almost 70% of the studies in North America. Europe had a unique scenario; except for co-option and collective action,

Table 2: Participation levels in organizational, individual and collective domains

DOMAINS								
PARTICIPATION	Organizational	%Total	Individual	% Total	Collective	% Total	Total	Percentage
Co-option	2	3.5%	5	12.8%	0	0.0%	7	5.65%
Compliance	16	28.1%	12	30.8%	1	3.6%	29	23.39%
Consultation	15	26.3%	8	20.5%	4	14.3%	27	21.77%
Co-operation	8	14.0%	5	12.8%	2	7.1%	15	12.10%
Co-learning	14	24.6%	7	17.9%	18	64.3%	39	31.45%
Collective action	2	3.5%	2	5.1%	3	10.7%	7	5.65%
Total	57		39		28		124	
Percentage Total	45.97%		31.45%		22.58%			100%

Table 3: Participation level in the five continents

	Latin America	% Total	North America	% Total	Europe	% Total	Asia	% Total	Africa	% Total	Australia	% Total	Total
Co-option	1	2.6%	3	9.7%	0	0.0%	1	14.3%	1	25.0%	1	6.7%	7
Compliance	5	12.8%	12	38.7%	8	28.6%	2	28.6%	1	25.0%	1	6.7%	29
Consultation	10	25.6%	6	19.4%	6	21.4%	0	0.0%	2	50.0%	3	20.0%	27
Co-operation	2	5.1%	2	6.5%	6	21.4%	3	42.9%	0	0.0%	2	13.3%	15
Co-learning	18	46.2%	6	19.4%	7	25.0%	0	0.0%	0	0.0%	8	53.3%	39
Collective action	3	7.7%	2	6.5%	1	3.6%	1	14.3%	0	0.0%	0	0.0%	7
Total	39		31		28		7		4		15		124
% Total	31.45%		25.00%		22.58%		5.65%		3.23%		12.10%		

all other participation levels had a similar number of studies despite compliance being used more often. Asia was also peculiar in that, besides having only a few number of published studies (seven), 43% of these studies had the least democratic levels of participation (co-option, compliance and consultation combined), while 57% of these studies had the most participative ones (co-operation, co-learning and collective action combined). Therefore there was no clear demonstration of a participation level tendency in the studies carried out in Asia; this was indicated by the fact that the most frequent level is co-operation, wherein the action research process is directed by outsiders. Finally, the participation levels in the four African studies were poor.

Action research in the continents

Latin America had primary healthcare/community level as a privileged context for action research

(51%). Healthcare stakeholders (44%) were the predominant participants, and the articles were more frequently published between 2011 and 2015. Brazil was responsible for 86% of the publications,^{21-23,25,26,30,34,36,43,45,52,59,60,62,63,65-79} followed by Colombia,⁸¹⁻⁸⁵ Ecuador,⁸⁴ Dominican Republic,⁴⁰ Mexico,⁸⁵ Peru,⁸⁶ and Uruguay.⁸⁷ Such studies relied on democratic levels of participation more frequently than in any other continent (23 out of 39 articles) (Table 4).

However, this was not applied to studies classified in the individual domain, which constituted 75% of the precarious participative levels.^{25,36,45,65,67,68,70,74,75,77-81,85,86} The participants of these studies were children and their families,^{25,77} populations at risk of developing chronic diseases,^{65,78} older people at risk of developing osteoporosis,⁶⁷ hemodialysis patients,³⁶ pregnant women,⁷⁵ and women at risk of HPV contamination.⁸⁶ Regardless of the

Table 4: Levels of participation in Organizational, Individual and Collective domains in Latin American publications

	Organizational	% Total	Individual	%Total	Collective	%Total
Co-option	0	0.0%	1	8.3%	0	0.0%
Compliance	2	20.0%	3	25.0%	0	0.0%
Consultation	2	20.0%	5	41.7%	3	17.6%
Co-operation	2	20.0%	0	0.0%	0	0.0%
Co-learning	4	40.0%	3	25.0%	11	64.7%
Collective action	0	0.0%	0	0.0%	3	17.6%
Total	10		12		17	
% Total	25.6%		30.8%		43.6%	

participation level and year of publication, every individual domain study was based on the health promotion perspective, which aimed at behavior/habit change.

Almost half of the Latin America studies (44%) focused on the collective domain. Minorities (disabled people,⁷⁷ Indigenous^{63,76,84} and *favela* populations²⁶) and healthcare stakeholders^{21,23,30,58,62,72,76,82} also participated in the studies. All studies took place in primary healthcare/community level services, except for two of them,^{23,72} which were conducted in schools. Political and/or human rights issues were present in 70% of the collective domain studies.^{21-23,31,60,63,76,84}

Participants in the organizational domain studies were healthcare stakeholders from primary healthcare services,^{43,71,73} hospitals,⁶⁶ and nursing homes.⁷⁸ Sixty percent^{65,70,78} of the organizational domain studies were interested in nursing processes and competencies.

The most frequent context for North American studies was primary healthcare/community (61%). Participants were mainly minority groups (35%), and studies were more often published from 2011 to 2016. There were 21 published studies from the United States of America^{17,42,48,49,88-104} and 10 from Canada.^{35,64,105-112}

Using more precarious levels of participation (78.6%) and having an exclusive primary healthcare/community as settings, almost half (45.2%) of the North American studies were classified into the individual domain (Table 5). Seventy-four percent of these studies were carried out on minorities, such as

African Americans,^{90,101} Latins,^{49,96} Korean Americans,⁹⁵ and Indigenous/Aboriginals.^{97,109,110} The aim of these studies was to promote screening for cancer^{93,101} and vaccination,⁹⁵ and to change behavior/habits^{49,90,104,107,109,111} to promote health.

Likewise, organizational domain studies also involved less democratic levels of participation (72.7%). Most of the participants were healthcare stakeholders from healthcare services,^{48,64,102} hospitals,^{88,101,102} and primary healthcare/community level services.^{105,108} Studies in the hospital context had less democratic participation levels,^{88,100,102} as did other healthcare services studies,^{48,99,102} except for a study in a mental healthcare unit that employed collective action.⁶⁴ The collective domain showed a different scenario because co-operation⁹³ and co-learning^{20,91,92} levels of participation were mostly used. Participants were mainly minority groups (Sudanese refugees,⁹¹ African Americans,^{92,103} immigrants,⁹⁴ Indigenous people¹¹⁰), except for a study whose participants were healthcare stakeholders.³⁵ Two thirds of the total studies took place in primary healthcare/community level services,^{91,92,103,110} one study was conducted in a school,³⁵ and one in a restaurant⁹⁴ (work setting). As in Latin American studies, collective domain studies aimed to propose and/or establish policies and political debates and actions,^{35,94,110} and examine cultural and community resources^{91,92} to promote awareness among participants regarding their rights and history.

In contrast to the other continents, most studies in Europe were published from 2001 to 2005. Eighty-two percent of the studies focused on organizational

Table 5: Levels of participation in Organizational, Individual and Collective domains in North American publications

	Organizational	% Total	Individual	% Total	Collective	% Total
Co-option	1	9.1%	2	14.3%	0	0.0%
Compliance	4	36.4%	7	50.0%	1	16.7%
Consultation	3	27.3%	2	14.3%	1	16.7%
Co-operation	0	0.0%	1	7.1%	1	16.7%
Co-learning	2	18.2%	1	7.1%	3	50.0%
Collective action	1	9.1%	1	7.1%	0	0.0%
Total	11		14		6	
% Total	35.5%		45.2%		19.4%	

Table 6: Levels of participation in Organizational, Individual and Collective domains in European publications

	Organizational	% Total	Individual	% Total	Collective	% Total
Co-option	0	0.0%	0	0.0%	0	0.0%
Compliance	7	30.4%	1	25.0%	0	0.0%
Consultation	5	21.7%	1	25.0%	0	0.0%
Co-operation	5	21.7%	1	25.0%	0	0.0%
Co-learning	5	21.7%	1	25.0%	1	100.0%
Collective action	1	4.3%	0	0.0%	0	0.0%
Total	23		4		1	
% Total	82.1%		14.3%		3.6%	

demands, and hospitals were the most frequent setting for action research (43%). Two-thirds of the studies in Europe were carried out in the United Kingdom,^{16,38,39,47,54,57,109,111,114-124} followed by Denmark,^{50,125} Sweden,^{32,126} Finland,⁵⁸ Ireland,¹²⁷ Jordan,⁴⁰ Norway,¹²⁸ Spain,⁴⁰ and Switzerland.¹²⁹

A range of participation levels was used, despite compliance^{43,107,110,111,113,119} being used more frequently (30.4%) (Table 6). Participants of the organizational domain studies were mostly healthcare stakeholders,^{16,32,38,39,44,47,50,54,58,114-117,121-129} except for one study, which was conducted in a college¹²⁰: wherein the participants were students with anxiety disorder, and another study which was carried out in a Danish industrial setting⁴³ with workers; both studies had less democratic levels of participation. Hospitals were the most common setting,^{16,32,44,47,54,112-116,123,124,126,129} followed by other healthcare services, which used compliance^{117,128} and consultation^{39,121,127} levels of participations. Two studies were carried out in other healthcare services that were interested in evidence-based practice implementation^{99,122} and used co-learning as the participation level.

Four studies were categorized under the individual domain. Studies in the mental health area had more democratic participation levels (co-learning¹¹⁸ and co-operation⁵⁸), while the ones on primary healthcare⁵ and a children's center¹¹³ had healthcare stakeholders as participants and used compliance and consultation levels of participation, respectively. Therefore, unlike Latin and North America,

individual domain studies in Europe did not indicate a tendency to have poor levels of participation.

Only one study with residents from a local house state – a community aiming to ensure sustainability and provide a more flexible resource to meet their needs using co-learning level of participation – was classified categorized under the collective domain.

Asian countries that published action research studies were China,^{71,130} Thailand,^{57,131} India,¹³² Pakistan,¹³³ and Taiwan.¹³⁴ Prominent Asian research scholars of participatory research, such as Muhammad Rahman¹³⁵ and Rajesh Tandon,¹³⁶ were responsible for the conceptualization and dissemination of the southern tradition of action/participatory research. However, when the domain studies from Asian publications were compared with each other, no participation level tendency was found (e.g. in the individual domain, the participation levels in three studies were classified as co-operative and collective,^{51,131,133} and that in two studies were classified as co-option and compliance^{130,132}) (Table 7), reinforcing the results previously described.

The individual domain was predominant in the Asian studies (71%), and the most common setting was primary healthcare/community.^{51,133,134} Other settings were school,¹³⁰ wherein children and adolescents were participants, and textile production centers¹³¹ (work setting), with female weavers as participants; this was the only collective action level of participation in Asian studies. Low socioeconomic communities in Pakistan (minority group) were the participants of an individual domain study

Table 7: Levels of participation in Organizational, Individual and Collective domains in Asiatic publications

	Organizational	% Total	Individual	% Total	Collective	% Total
Co-option	0	0.0%	1	20.0%	0	0.0%
Compliance	1	100.0%	1	20.0%	0	0.0%
Consultation	0	0.0%	0	0.0%	0	0.0%
Co-operation	0	0.0%	2	40.0%	1	100.0%
Co-learning	0	0.0%	0	0.0%	0	0.0%
Collective action	0	0.0%	1	20.0%	0	0.0%
Total	1		5		1	
% Total	14.3%		71.4%		14.3%	

that used the co-operation level of participation,¹³³ and migrant women (minority group) engaged in a compliance level of participation.¹³⁴

In the exclusive organizational domain of an Asian study,¹³⁰ participants were healthcare stakeholders interested in making relevant changes in nursing practice through an educational program using the compliance level of participation.

There was one study based on the collective domain.³⁷ It was carried out on children and their families in a school setting, and used the co-operative level of participation to promote healthy eating and physical activities habits, apart from implementing school policies.

As aforementioned, Africa did not have a substantial number of publications (four). Studies from

South Africa,^{137,138} Rwanda,¹³⁹ and Uganda⁵⁶ were included. All studies predominantly fell under the organizational domain and had poor levels of participation (co-option,¹³⁹ compliance,⁵⁶ and consultation^{137,138}) (Table 8). Two studies, published from 2011 to 2016, were conducted in hospitals^{56,137} and two in other healthcare services (mental health service¹³⁹ and vocational rehabilitation service¹³⁸). Participants of all studies were healthcare stakeholders.

Eighty percent of the Australian studies were published from 2008 to 2015. The majority of the Australian studies included healthcare stakeholders as participants (67%),^{18,46,53,55,61,112,140-144} and more than half of the studies (53%) were in the organizational domain. These studies took place in

Table 8: Levels of participation in Organizational, Individual and Collective domains in African publications

	Organizational	% Total	Individual	% Total	Collective	% Total
Co-option	1	25.0%	0	0.0%	0	0.0%
Compliance	1	25.0%	0	0.0%	0	0.0%
Consultation	2	50.0%	0	0.0%	0	0.0%
Co-operation	0	0.0%	0	0.0%	0	0.0%
Co-learning	0	0.0%	0	0.0%	0	0.0%
Collective action	0	0.0%	0	0.0%	0	0.0%
Total	4		0		0	
% Total	100.0%		0.0%		0.0%	

Table 9: Levels of participation in Organizational, Individual and Collective domains in Australian publications

	Organizational	% Total	Individual	% Total	Collective	% Total
Co-option	0	0.0%	1	25.0%	0	0.0%
Compliance	1	12.5%	0	0.0%	0	0.0%
Consultation	3	37.5%	0	0.0%	0	0.0%
Co-operation	1	12.5%	1	25.0%	0	0.0%
Co-learning	3	37.5%	2	50.0%	3	100.0%
Collective action	0	0.0%	0	0.0%	0	0.0%
Total	8		4		3	
% Total	53.3%		26.7%		20.0%	

hospitals^{18,53,55,61,143} and nursing homes or services.^{140,141,145} All studies had healthcare stakeholders as participants, except for one study, which included older people in order to develop a framework to provide improved care.¹⁴⁵ Several levels of participation were used in these settings (compliance,¹⁴¹ consultation,^{55,112,145} co-option,⁵³ co-learning^{18,61,140}) (Table 9).

Four studies fell under the individual domain^{144,146-148} and healthcare services. The co-learning level of participation was used in studies wherein the participants were mentally¹⁴⁷ or physically¹⁴⁸ disabled people. A study on asthmatic people¹⁴² had the poorest level of participation, and the last one which included both nursing students and families at risk for illness as participants¹⁴⁴ used co-operation as the participation level.

Collective domain studies^{46,54,112} used co-learning as the participation level. Healthcare stakeholders participated in two studies (hospital¹¹² and primary healthcare setting⁴⁶), and Brazilians who immigrated to Australia participated in the last one⁶² (community level setting).

Discussion

This scoping review included 124 studies that used action research in the healthcare field. Publications have increased steadily since the 1990s, especially after 2000. All included studies were qualitative, although no study design limitation was stipulated in the search. Since this was a scoping review, no methodological appraisal was done. Only studies that used action research in healthcare and cited

prominent scholars and studies that detailed the entire action research process were considered.

The extracted data was relevant to the review question, considering the level of participation, knowledge building and social change during the action research process. This data showed how action research had been used in the healthcare setting, taking into consideration the aims and theoretical assumptions of the studies. Through data extraction, we categorized the studies into three domains: organizational, individual and collective.

In general, individual domain studies had more precarious levels of participation; collective domain ones had more democratic levels of participation; and organizational domain studies had both. Organizational action research was more prominent in Europe and Australia, which was influenced by the northern tradition of action research. Despite a few studies published in Africa, all of the studies fell under the organizational domain. In contrast, Loe-wenson *et al.*,¹⁴⁹ supported by WHO and other organizations, conducted a participatory action research, based on a Methods reader to inform, motivate and strengthen its practice and address inequities in health. Methods reader refers to some studies that have described primary research processes using action research in Africa and Asia aimed at social justice and equality in power relations. Despite developing an extensive search strategy and searching several databases, our search for this scoping review could not find collective domain studies in Africa, and only a few were found in Asia. Our results have therefore been presented with

caution, considering the chosen categories; in other words, we cannot make shallow assumptions about the presence or distribution of action research in these continents.

Individual and collective domain studies had a range of participants and aspects, such as minority groups (e.g. Latin Americans living in the USA, refugees, indigenous people), life stage populations (older people, children, young people, and women), and people with or at risk of developing acute or chronic diseases (such as diabetes and occupational diseases). In some cases, healthcare stakeholders were the participants of collective domain studies. In Latin America and North America, several studies concentrated on the individual domain. Latin America had more studies in terms of both percentage and absolute values regarding the collective domain due to the influence of the southern tradition of action research.

Regardless of the population specificity (e.g. school children, breastfeeding women, people with acute or chronic disease), individual domain studies aimed to foster behavioral/habit change. Researchers based their action research process on the health promotion framework, which put individuals in charge of their own health¹⁵⁰ and considered the context/environment as one of the factors of illness acquisition. On the other hand, collective studies seemed to generate political discussions that made individuals aware of the needs and rights of the group they belonged to or were part of (e.g. *favela* residents, African American youth and Indigenous groups). This is the outcome of collective studies that incorporated a political tradition in the healthcare field in Brazil and also in every Latin American country.²⁰ In many instances, critical epistemology underpinnings seemed to support collective domain studies, which pointed out to embed political and economic issues in the illness process.

Authors of prominent action research studies were one of the data to be extracted in primary studies. We expected that studies with similar aims would cite studies by certain authors. For example, organizational domain studies would be guided by European, Nordic and American action research authors while collective domain ones would fall under the assumptions of action research authors from developing countries. Nevertheless, this was not necessarily true. Researchers often cited studies of their fellow compatriots, regardless of the

author's epistemology or theoretical affiliation. Hence, action research authors who affirmed it as an approach rather than a methodology tended to be cited more frequently because their assumptions of methods were not based on any specific theory. In general, the studies did not clearly demonstrate a perfect alignment of theoretical assumptions with the selected methodology; there was a tendency to refer to mixed action research orientations in a single study.^{17,42,49,92,129,131} There was no recognition of the epistemological differences between the action research traditions and often no clear disclosure of the key concepts in a context where it seemed to be enough to state the dominant theories and models. Researchers may use the action research *method* – as in the northern tradition – and the action research *methodology* – as in the southern tradition – interchangeably, integrating propositions with diverse aims and philosophical underpinnings.¹¹ In the case of not recognizing such misunderstanding, there is an imminent risk of employing co-optation action research methodology in healthcare, since the action research method tends to be oversimplified and substantiates pragmatic logic of the dominant science.

Limitations of the review

Although most of the included studies were in English; there might have been studies in European, Asian and African languages that we were not able to read. The collection of included studies might have been different if studies published in other languages had also been included, which could have provided more diverse results and conclusions.

Moreover, our results presented general tendencies out of a spectrum of ways to conduct action research. It is conceived to be tailored according to local reality and needs, and there are several assumptions influenced by different traditions. Therefore, a universal guidance for action research is impossible.

We opted to exclude unpublished studies (gray literature) due to the satisfying number of the existing published studies. However, we consider that this is a limitation of the review and a deviation from the protocol.¹¹

Conclusion

In this review, we sought to map action research in the healthcare field. Because of the influence of different traditions and rapid spread of action research all over the world in several knowledge fields, we found

different aims and procedures in action research studies in healthcare. Participation levels ranged from no real input or power in the research process to democratic knowledge sharing and development of collective understanding. Action research processes were carried out in diverse healthcare scenarios, which indicate that action research was useful in any context where there were organizational and/or political issues as well as to address the gaps in health education. Therefore, participants with different interests and demands were part of the research.

Based on the objectives of studies, knowledge building and social change data, we developed three domains to categorize the studies. In general, Europe and Australia published more organizational domain studies, with mainly healthcare stakeholders as participants. North America had more individual domain studies, and Latin America, the continent with a higher percentage of published studies, had studies that frequently focused on the collective domain. Asia and Africa did not have a consistent number of published studies, which can be attributed to the language inclusion criteria and other search strategies that made it difficult to retrieve articles.

The review addressed the initial questions regarding action research principles, such as participation, knowledge building and social change. The findings of this review raise questions for further qualitative systematic reviews and can help researchers to reflect on their own propositions and proceedings.

Recommendations for research and practice

Recommendations for research and practice are presented together in this review since the examined concept (action research) integrates research and practice.

The objective of this scoping review was to map published literature related to healthcare that used action research. While a substantial number of studies describing the action research process have been carried out, there is the need to clarify the researchers' aims when using action research by choosing a coherent theoretical guidance provided by scholars with more pragmatic views. Equally, if they use action research as a methodology, the process will be organic and coherent when the research aims to support social change that fosters practices and political transformation at the micro or macro levels. Thus, a lucid theoretical position is essential in action research processes.

Second, a wide scope of primary action research processes has already been elucidated as far as the lessons learned and personal reflections about them are concerned. In order to map the transformations and impact of action research on the participants and healthcare settings, a critical evaluation of the process is highly recommended. This might bring relevant contributions to improve action research in healthcare.

It should be kept in mind that democratic processes that engage participants from the beginning tend to result in more substantial changes and may improve the quality of the action research. Since the purpose of action research is to transform reality, regardless of the study domain (organizational, individual or collective), every participant should have control of the process as much as possible. Making collective decisions based on participants' intentions and needs will yield more effective and satisfying practical and significant results.

Qualitative systematic review questions may be derived from this scoping review. Building evidence on participants' behavioral changes through the action research process, with their experiences as part of the development, implementation of laws, or even the impressions of participants' realities before and after an action research takes place is recommended.

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Appendix I: Search strategies, study identification and selection

Database	Search strategy	Records	Date	Update	Number of selected articles
CINAHL	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” (Keyword/MH/Subject) AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method* - Research	264 + 14 - = 278	Mar. 17, 2015	June 08, 2016	38
MEDLINE	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” (Keyword/MH/Subject) AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method*	236 + 33 - = 269	Mar.17, 2015	May 30, 2016	10
Health Source	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method*	86 + 46 - = 132	Mar.17, 2015	June 08, 2016	9
PsycINFO	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method* AND “public health practice” OR “health promotion” OR “health planning” OR “health education”	26 + 8 = 34	Mar.17, 2015	June 17, 2016	2

(Continued)					
Database	Search strategy	Records	Date	Update	Number of selected articles
ERIC	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method* AND “public health practice” OR “health promotion” OR “health planning” OR “health education”	22 + 1 = 23	Feb. 27, 2015	May 30, 2016	5
Social Sciences	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method* AND “public health practice” OR “health promotion” OR “health planning” OR “health education”	5	Feb. 27, 2015	—————	0
ScienceDirect	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” (Keyword) AND “healthcare disparities” OR “social change” OR “social transformation” OR “capacity building” – Nursing and health profession	54 + 4 = 58	Mar. 04, 2015	June 02, 2016	8
Wiley	“action research” OR “community-based participatory research” OR “community-based action research” OR “participatory research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” (Keywords) AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality” OR inequality* OR “social participation” OR Collaboration OR “problem solving” OR “capacity building” AND Method* AND “public health practice” OR “health promotion” OR “health planning” OR “health education” JOURNALS	252 + 47 - = 299	Mar. 04, 2015	June 07, 2106	30

(Continued)					
Database	Search strategy	Records	Date	Update	Number of selected articles
Web of Science	“action research” OR “community-based participatory research” OR “community-based action research” OR “mutual inquiry” OR “feminist participatory research” OR “community-partnered participatory research” OR “collaborative research” OR “co-operative inquiry” OR “participatory rural appraisal” OR “participatory learning research” AND “healthcare disparities” OR “social change” OR “social justice” OR “social transformation” OR “health inequality*” OR inequality* OR “social participation” OR “ problem solving” OR “ capacity building” AND Method* AND “public health practice” OR “health promotion” OR “health planning” OR “health education”	90 + 9 = 99	Mar. 25, 2015	June 08, 2016	8
SciELO	“pesquisa-ação” OR “action research” - Área temática: ciências da saúde	306	June 08, 2016	—————	

Appendix II: Excluded studies and reasons for their exclusion

Reason	Study
The study does not describe the full process of action research or does not contain all needed information	<ul style="list-style-type: none"> • Aho AL <i>et al.</i> Development and implementation of a bereavement follow-up intervention for grieving fathers: an action research. <i>J Clin Nurs.</i> 2010; 20:408–419. • Bish M, Kenny A, Nay R. Using participatory action research to foster nurse leadership in Australian rural hospitals. <i>Nurs Health Science.</i> 2013; 15:286–291. • Brandão Neto W, <i>et al.</i> Violence in the eye of adolescents: education intervention with Culture Circles. <i>Rev Bras Enferm.</i> 2015;68(4):617–25 • Buranatreveth S, Sweatsriskul P. Model of development for health promotion and control of agricultural occupational health hazards and accidents in Pathumthani, Thailand. <i>Industrial Health.</i> 2005; 43:669–676. • Dowswell <i>et al.</i> The development of a collaborative stroke training programme for nurses. <i>J Clin Nurs.</i> 1999; 8:743–752. • Hoga LAK, Reberte LM. Action research as a strategy to develop pregnant woman group: the participants' perception. <i>Rev Esc Enferm USP.</i> 2007;41(4):559–566. • Laperriere H. Evaluation of STD/HIV/AIDS peer-education and danger: a local perspective. <i>Cienc Saúde Col.</i> 2008; 13(6):1816–1824. • Lorenzo IS <i>et al.</i> Community empowerment within health in three Cuban municipalities. <i>Rev Cubana Med General Integral.</i> 2013; 29(2):184–191 • Magalhães ZR <i>et al.</i> Some considerations concerning the human living process of recently hired nursing technicians in a university hospital. <i>Texto Contexto Enferm.</i> 2006; 15 (Esp): 39–47. • Mills J, Fitzgerald M. The changing role of practice nurses in Australia: an action research study. <i>Austr J Advanced Nurs.</i> 2008;26(1):16–20. • Monteiro MAA, Pinheiro AKB, Souza AMA. Support group: interpersonal relationships among puerpera with hospitalized newborn children. <i>Acta Paul Enferm</i> 2008;21(2):287–93. • Moyer <i>et al.</i> Identifying people in need using action research. <i>J Clin Nrs.</i> 1999; 8:103–111. • Oliveira A <i>et al.</i> Communication within the context of user welcoming into a family health unit in São Carlos, São Paulo. <i>Interface Comunic, Saúde, Educ.</i> 2008;12(27):749–62. • Sade PMC, Peres AM. Development of nursing management competencies: guidelines for continuous education services <i>Rev Esc Enferm USP</i> · 2015; 49(6):991–998. • Ramalho Neto JM, Fontes WD, Nóbrega MML. Instrument to collect nursing data in General Intensive Care Unit. <i>Rev Bras Enferm.</i> 2013; 66(4): 535–42. • Reid-Searl <i>et al.</i> Caring for children with complex emotional and psychological disorders: experiences of nurses in a rural paediatric unit. 2009 • Restrepo O. Immigration and etnosalud: Possibility of a differential model of health. <i>Rev Fac Nac Salud Pública</i> 2009; 27(1):10–15. • Silva KL <i>et al.</i> Reflections concerning the drug abuse and the violence in the adolescence. <i>Esc Anna Nery.</i> 2010; 14 (3):605–610. • Shulz <i>et al.</i> Conducting a Participatory Community-Based Survey for a Community Health Intervention on Detroit's East Side. <i>J Public Health Management Practice.</i> 1998, 4(2): 10–24 • Tsey K <i>et al.</i> Indigenous men taking their rightful place in society? A preliminary analysis of a PAR process with Yarrabah men's health group. <i>The Austr J Rural Health.</i> 2002; 10(6): 278–284. • Tsey K <i>et al.</i> Empowerment-based research methods: a 10-year approach to enhancing Indigenous social and emotional wellbeing. <i>Australasian Psychiatry.</i> 2007;15(suppl): 34–8. • Wilson <i>et al.</i> Getting to Social Action: The Youth Empowerment Strategies (YES!) Project. <i>Health Promotion Practice.</i> 2008; 9(4): 395–403.
It is not a primary study	<ul style="list-style-type: none"> • Kelly, Simpson. Action research in action: reflections on a project to introduce Clinical Practice Facilitators to an acute hospital setting. <i>J Adv Nurs.</i> 2001; 33:. 652–659
Case study overview	<ul style="list-style-type: none"> • Main <i>et al.</i> Taking Neighborhood Health to Heart (TNH2H): Building a Community-Based Participatory Data System. <i>Preventing Chronic Disease.</i> 2012;9: 1–8
Practice description	<ul style="list-style-type: none"> • Vasconcelos EM. Popular education as a tool for redirecting strategies to deal with infectious and parasitic diseases 1998; 14(Sup. 2):39–57. • Sousa EMS, Oliveira MCC. Live (and) to learn: an intervention for the active aging promotion. <i>Rev. Bras. Geriatr. Gerontol.</i> 2015; 18(2):405–15.

Appendix III: Included studies and data extraction

Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Alvarado, Moreno, Rodriguez	Social inclusion and community participation: an alternative work in front disability.	2009	Latin Am Hc Serv	minorities	To develop and evaluate the perception of a program funded on a socioecological model with the community aiming to promote social inclusion of disabled people and their families concerning personal, family and community development.	IAP	Pt SC	Freeman, 2007	Pl Act	consultation	The personal, family and community developmental gains were enabled due to the community effort to build an interdisciplinary model.	Recognition of the value and potentialities of the disabled people; recognition of the caregivers' needs; identification of the community possibilities to be responsible and to compromise with those who need developmental support.	collective
Arteaga, San Sebastian, Amores C	Participatory construction of indicators of an intercultural health model in Loreto county, Ecuador.	2012	Latin Am PHC	minorities	To develop indicators to measure the implementation of an intercultural health model.	IA	Pt SC	Creswel, 2007	Pl Act	co-learning	32 indicators to measure the implementation of an intercultural health model were identified and grouped in four domains.	Access barriers for the users/ indigenous and their possible solutions were unveiled.	collective
Baird MB <i>et al.</i>	Creating a Bridge of Understanding between Two Worlds: Community-Based Collaborative-Action Research with Sudanese Refugee Women.	2015	North Am PHC	minorities	To explore the process of partnership between university researchers, students, and South Sudanese refugee women to address the health challenges associated with their resettlement transition to the United States of America.	CCAR	Pt KB SC	Pavlish, Pharris, 2011; Wallerstein, Duran, 2010	Pl Act	co-learning	Women were given mammograms; list of suggestions to improve access to health care for their community; networking and support within the refugee community.	Information about childhood illnesses, women health and stress; understanding of American culture and cultural differences.	collective
Barbosa RS, Giffin K	Survey and action on gender, reproductive health and daily life with youngsters in Maré, Rio de Janeiro.	2007	Latin Am PHC	minorities	To promote sexual and reproductive health of youth that live in poverty contexts.	PA	Pt Cy SC KB	Hollanda, 1993; Reason, 1994	Pl Act Obs Ref	collective action	Collective engagement; elaboration of community projects.	Reflection on equality and social justice using gender as a trigger in order to promote sexual and reproductive health in youth of poverty contexts.	collective
Berger SMD, <i>et al.</i>	Educating Community Health Agents to face gender violence: contributions from Popular Education and feminist pedagogy.	2014	Latin Am PHC	Hc st	To build knowledge to cope with gender violence.	PA	Pct Cy KB SC	Thiollent, 1986	Pl Act Acy Ref	co-learning	To offer tools for the development of practices concerning violence; coordination of the different territory services.	Discussion about the gender concept; broadening of gender violence concept.	collective
Bharmal N <i>et al.</i>	Through Our Eyes: Exploring African-American Men's Perspective on Factors Affecting Transition to Manhood.	2011	North Am PHC	minorities	To identify, discuss, and develop strategies to address factors influential in African-American men's transition to manhood.	CBPR	none	Minkler Wallerstein, 2003	Pl Act	co-learning	A program that helps participants access and utilize community resources to build bridges to their futures was structured.	Young men were conscious that they continued to struggle with the challenges they described as they attempted to realize life goals.	collective
Borgia F <i>et al.</i>	From the invisibility of the situation of rural and community health services in Uruguay towards the prioritization of rural health as Public Policy.	2014	Latin Am Hc Serv	minorities	To establish an agenda of rural health.	IAP	Pt KB SC	Ctruo, 1987; Fals-Borda, Rahman, 1991	P Act Ref	co-learning	Provision of meetings between national sanitary authorities and residents/users of different territories; Health promotion projects were built and staff training was provided.	Reflection on the Uruguay health system and rural community health needs.	collective

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Borges MTT, Barbosa RHS	Converging gender and popular education through action research to address female smoking within contexts of social vulnerability.	2013	Latin Am PHC	Cycle	To develop a tobacco prevention program operationalized by community smokers.	PA	Pt Cy KB SC	Reason, 1994; Giffin, Simões-Barbosa, 2009	Pl Act Obs Ref	co-learning	Planning and execution of a tobacco prevention program with community women. Promotion of self-esteem and recovery of personal projects of the participants.	Strengthening of the critical capacity to understand contemporary society - the individual and collective search for overcoming the inequities and social injustice that women still go through in daily life .	collective
Brito JSS, Albuquerque PC, Silva EH	Popular health education with the Xukuru do Oorubá indigenous people.	2013	Latin Am PHC	Hc st	To train Indigenous Health Agents (IHA) and Indigenous Sanitation Agents (ISA) for the formation of groups of youth and young educators in health.	PA	Pt Cy KB SC	Thiollent, 1998	Pl Act Obs Ref	collective action	Integration of actions with teachers and Educational Board proposal; Formation of a working group to elaborate the training for IHA and ISA, integrated with the Funasa Education and Health calendar. Xukuru youth groups were constituted.	Xukuru youths exerted leadership and a political role in the discussions about health; strengthening of the Xukuru History and identity.	collective
Burgess, Purkis	The power and politics of collaboration in nurse practitioner role development.	2010	North Am School	Hc st	To investigate the research question 'How does collaboration advance NP role integration within PHC?'	PAR	Pt KB Cy	Burgess 2006; Reason 2006. Hall's 2001; Bradbury, Reason 2003; McTaggart 1991; Kemmis, McTaggart 2005	Pl Act Obs Refl	co-learning	NPs investigated their experiences and fostered more democratic relations.	Better understanding and development of (political) NP role integration. Collaborative efforts are needed to effectively prepare and support NPs and their collectives to manage the power relations inherent in health organizations and to engage in strategic political action for health-care improvement.	collective
Chang C <i>et al.</i>	Studying and Addressing Urban Immigrant Restaurant Worker Health and Safety in San Francisco's Chinatown District: A CBPR Case Study.	2013	North Am Occup Health	minorities	To influence a policy change, based on a process about workers' perceptions of working conditions and experiences with occupational injuries and other health conditions.	CBPR	Pt KB SC	Green LW <i>et al.</i> 199; Israel <i>et al.</i> 1998; Israel BA <i>et al.</i> 2005; Wal-lerstein N, Duran B, 2010; Minkler M, 2010; Cargo M, Mercer SL, 2008, O'Fallon LR 2001; Minkler M, 2005	Pl Act Obs	co-operation	Establishment of laws and policies to protect Chinese restaurant workers.	The researchers acquired knowledge about the Chinese working situation, but no collaborative knowledge building was described.	collective
Chotibang <i>et al.</i>	Development of a Family and School Collaborative (FASC) Program to Promote Healthy Eating and Physical Activity among School-age Children.	2009	Asia School	Cycle	To develop a family and school collaborative program to promote healthy eating and physical activities among school-age children.	PAR	Pt KB SC	Stringer, 1999.	Pl Act Obs Refl	co-operation	Implementation of practical activities for healthy eating and physical activity for schoolchildren. Creation and implementation of school policies.	Nutrition education for children. Health food preparation for cafeteria members. School personnel training on Nutritional Assessment System Program. Obesity prevention education for parents and school personnel implementation of practical activities for healthy eating and physical activity for schoolchildren. Creation and implementation of school policies.	collective

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Coscrato G, Bueno SMV	Concepts of health education by public health nurses.	2013	Latin Am Hc Serv	Hc st	To know the concepts of health education in 12 nurses' views and to develop an education action with them.	PA	Pt KB	Molina, 2007; Lewin, 1970; Corey, 1979,	Pl Act Ref	consultation	None.	Reflections intended to raise political consciousness on health promotion.	collective
Foster Jet al	A Community-Based Participatory Research approach to explore community perceptions of the quality of maternal-newborn health services in the Dominican Republic.	2010	Latin Am Hospital	Cycle	To understand community perceptions of maternity services.	CBPR	Pt SC	Viswanathan <i>et al.</i> 2004;	Plan Act Obs Refl	co-learning	Presentation of results for the community; regular meetings with hospital and community volunteers to coordinate how to implement improvements in the maternity setting.	Community dissatisfaction with health care became evident; this approach has empowered those involved to collaborate towards a common goal of improving health care.	collective
Galvin D, Wilding C, Whiteford G	Utopian visions/dystopian realities: Exploring practice and taking action to enable human rights and occupational justice in a hospital context.	2011	Australia Hospital	Hc st	To investigate and affect occupational therapists' understanding of human rights theory and occupational justice philosophy in everyday occupational therapy practice.	CAR	Pt KB SC Cy	Wilding 2008; Stringer, 2007; Kemmis, McTaggart, 1998	Pl Act	co-learning	None.	Participants developed an appreciation of how the aspirational nature of the WFOT Position Statement could help them to align their practices with a vision of occupation and justice; development of new and different ways of thinking about occupational therapy practice.	collective
Judd J, Keleher H	Reorienting health services in the Northern Territory of Australia: a conceptual model for building health promotion capacity in the workforce.	2015	Australia PHC	Hc st	To promote health and develop prevention practice.	PAR	Pt Cy KB SC	Greenwood, Harkary, 1993; Green <i>et al.</i> 2005; Minkler, Wallerstein, 2003; Cargo, Mercer, 2008; Willis, 2007	Pl Act Obs Ref	co-learning	Improvement of access for Aboriginal patients (workplace structure change); implementation of regular review and evaluation of activities and projects, through a formal process of business planning; implementation of health promotion activities.	Participants increased their skills and knowledge of health promotion practice.	collective
Lax W, Galvin K	Reflections on a community action research project: interprofessional issues and methodological problems.	2002	Europe School	Cycle	To explore local child care issues with the aim of developing initiatives for improved child care.	AR	Pt Cy SC KB	Morton-Coooper, 2000; Hart, Bond, 1995; Wallis, 1998; Reason, Bradbury, 2001; Greenwood, Levin, 1998; Reason, 1998; Meyer, 2000; McNiff, 1988; Whyte, 1991; Holter, Schwartz-Barcott, 1993; Greenwood, 1994	Pl Act Ref	co-learning	Provision of a local holiday play scheme and training to ensure sustainability and offer a more flexible resource to meet the community's needs; development of a community newsletter.	Residents started identifying and taking action to meet their needs; increased access to information through inter-professional development of a news-sheet.	collective

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Oliveira, Martins, Bracht	Projects and practices in health education on school physical education: possibilities!	2015	Latin Am School	Hc st	To investigate how the health theme is approached in pedagogic practices of physical education in public schools, and to investigate the possibilities of broadening the health concept and how physical education can contribute to health education.	PA	PS Cy	Thiollent, 1985; Elliot, 2000	PI Act Ref	co-learning	Development of collective projects concerning teachers' health promotion in daily issues; broadening of the possibilities to engage health in personal, social and ecological plans.	Development of a broader health conception instead of a restricted biological perspective.	collective
Peace DM, Myers E	Community-based Participatory Process Climate Change and Health Adaptation Program for Northern First Nations and Inuit in Canada.	2012	North Am PHC	minorities	To build capacity by funding communities to conduct their own research in co-operation with Aboriginal associations, academics, and governments.	CBPR	Pt KB	WHO	PI Act	consultation	Capacity-building workshops/program; staff have given numerous presentations to government policy and program staff on these understandings and challenges/ community representative participated in funding committee.	Enabled youth to re-connect with their Elders and gain climate change and health awareness.	collective
Penaran da FC .et al.	Praxis as a foundation for an alternative health education: an action research study in the Growth and Development Monitoring Program in Medellin, Colombia.	2011	Latin Am School	Hc st	To evidence how the traditional pedagogical practice in health care (based on the biological model) becomes inadequate when it focuses only on the disease and on the homogenization of the individuals using actions with children and their caregivers.	PA	Pt KB	Reason, Bradbury, 2011	PI Act Ref	collective action	Educational practice transformation due to the researchers' and students' transformation. Transformation of the learning environments and of the relations that were built.	Critical reflection about the pedagogy practice and the health concept.	collective
Pessoa VM et al.	Meanings and methods of territorialization in primary health care.	2012	Latin Am PHC	Hc st	To identify and analyze the process in the territory in the PHC related to the working environment and the consequences on the community's and workers' health in order to propose actions centered on health necessities.	PA	Pt KB	Thiollent, 2008	PI Act Obs Ref	co-learning	Proposition of a plan with different sectors for participative actions that go beyond the Brazilian PHC National policies.	Recognition of the territory health needs.	collective
Pessoa VM et al.	Action research: methodological proposal for action planning in primary care services in the context of environmental health and occupational health.	2013	Latin Am PHC	Hc st	To use action research in a methodological path that eases the investigation and comprehension of how health access in work, economic development and environment is built.	PA	Pt KB	Thiollent 2008; Haguette, 2001; Bosi, 2007	PI Act Obs Ref	co-learning	Seminars, creation of different sector groups and local committee; elaboration of the natural source regulation law.	Comprehension of the change process that is occurring in the region due to the production process transformation.	collective

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Pontes AGV, Rigotto RM.	Occupational Health and Environmental Health: potentials and challenges of the relationship between the university, the Brazilian Health System and social movements.	2014	Latin Am Occup Health	disease	To analyze the challenges and potentialities of coordination between university, Brazilian healthcare system and social movements to generate the incorporation of integrated approach between worker health and environmental health.	PA	Pt KB SC	Thiolent, 2008.	Pl Act Obs Ref	co-learning	Collective production of an action plan to intervene on the structured reality.	Reflections on scientific production and the interest it responds to; comprehension of the complexity and gravity of the social problems in health, work, environment, economics, politics and culture and how they interact in the context of the production relations, environment and health necessities.	collective
Silva AL	Participatory Action Research in the Empowering Process of Brazilian Women in the Context of International Migration I.	2008	Australia PHC	Minorities	To create a personal and political space to empower a group of Brazilian immigrant women in order to reflect about their lives, the causes and solutions for their problems and to stimulate collective actions.	PAP	Pt Cy SC	Hall, 2001; Petras, Popora, 1993; Martin, 1996.	Pl Act Refl Obs	co-learning	Creation of a Brazilian community association.	Identification and reflection about the problems concerning living in Australia as an immigrant: health, socialization and adaptation. Recognition of the lack of belonging as a health factor in immigrants.	collective
Soratto J, Witt RR, Faria EM	Citizen participation and social control in health: challenges of the family health team.	2010	Latin Am PHC	Minorities	To build a participatory process and social control in health.	PA	Pt Ciy KB SC	Tobar, Yalour, 2011; Deslandes, Gomes, 2004	Pl Act Ref	co-learning	Higher popular participation in public health.	Knowledge about the organizational structure of the Brazilian health system; recognition of the territory; enhancement in the communication between workers and service users.	collective
Toledo RF, Giatti LL, Pelicioni MCF	Social Mobilization in Health and Sanitation in an Action Research Process in an Indigenous Community in North-western Amazon.	2011	Latin Am PHC	Minorities	To report and discuss the facts during and after health and sanitation training for <i>Iauareté</i> indigenous people.	PA	Pt Cy KB SC	Barbier, 2002; Morin, 2004; Thiollent, 2011; Pimenta 2005	Pl Act Obs Ref	co-learning	Proactive politicization concerning local problems aiming at better insertion of the indigenous people in the process of implementation of sanitary enhancement; elaboration of reclamation documents.	Interdisciplinary knowledge (traditional and technical) was built considering the problems in their integrality, favoring critical reflection and better comprehension of the reality. Awareness about the socioenvironmental and health problems; dissemination of the will to change of the community.	collective
Wynn TA	Using Community-Based Participatory Approaches to Mobilize Communities for Policy Change.	2011	North Am PHC	minorities	To effect tobacco-related policies to prevent cancer and other health disparities in African American communities.	CBPR	Pt Cy KB SC	Israel <i>et al.</i> 1998; Viswanathan <i>et al.</i> 2004; Minkler, Wallerstein, 2002	Pl Act Obs	compliance	Smoking campaign was implemented; establishment of a model as a grassroots community mobilization tool for policy change; Dissemination of the manual and fact sheets to partners.	None.	collective

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Zancan L <i>et al.</i>	Communication devices for health promotion: methodological reflections from the process of sharing of Work Case "Recognizing Manguinhos".	2014	Latin Am PHC	minorities	To share material of several languages about health, environment and citizenship of Manguinhos, making the critical analyses of these materials.	PA	Pt KB	Mori, Silva, Beck, 2009	Pl Act Ref	consultation	New communication cycles, training and transformation happened, beyond economic, urban, social and health policies that do not consider the Manguinhos residents as subjects.	Participants had contact with Manguinhos' productions and reflected whether these materials represent the community.	collective
Albuquerque OMR <i>et al.</i>	Public school students' perceptions of the environment and food available at the school: an emancipatory approach.		Latin Am School	Cycle	To analyze the perception of students of public schools about the school environment and feeding habits.	PA	Pt KB SC	Dione, 2007; Franco, 2005	Pl Act Obs Ref	consultation	Promise of feeding habits transformation.	Children's awareness about the importance of healthy eating habits at school was raised.	individual
Alexander IM	Emancipatory Actions Displayed by Multi-Ethnic Women: "Regaining Control of My Health Care".	2010	North Am PHC	Cycle	To evaluate the characteristics of community interaction with a PCNP as described by women and to identify any emancipatory interests that surfaced when women examined their interactions with PCNPs.	PAR	Pt Cy	Miskovic, Hoop, 2006; Stanley, Wise, 1983; Freire, 1999; Harding, 1987	Pl Act	co-learning	Recognition of the right to "talk back" to clinicians and make active decisions about their own health.	Participants learned how to speak/stand up for themselves; self-esteem development and behavior change; self-knowledge.	individual
Austin SA, Claiborne N	Faith Well-ness Collaboration: A Community-Based Approach to Address Type II Diabetes Disparities in an African-American Community.	2011	North Am PHC	disease	To implement a culturally congruent Type II Diabetes education program that improved participants' evidenced-based self-care practices and self-efficacy.	CBPR	Pt KB SC	Israel <i>et al.</i> , 2003	Pl Act Obs	compliance	Changes in church meals; sense of diabetes control; habits and behavior change.	Information about diabetes and heart disease and healthy habits (diet, exercising) to prevent those diseases and change lifestyle.	individual
Baldissera VDA, Bueno SMV	Leisure and mental health in people with hypertension: convergence in health education.	2011	Latin Am PHC	disease	To develop educational activities related to leisure.	PA	Pt Cy SC KB	Thiollent, 2007	Pl Act Ref	compliance	Behavior change and autonomy stimulation; impact on mental health and quality of life.	Reflection on the existent barrier for leisure activities due to hypertension; socialization through leisure as a strategy to cope with loneliness; leisure was understood as a right and a human need.	individual
Braun KL <i>et al.</i>	Building Native Hawaiian Capacity in Cancer Research and Programming.	2006	North Am School	disease	To address cancer health disparities by engaging more Native Hawaiians in research, programming, and health seeking.	CBPR	KB PS	Minkler and Wallerstein, 2003; Israel <i>et al.</i> 1998	Pl Act Obs	compliance	Increased number of cancer screenings in both men and women.	Increased individual competence in research and cancer knowledge.	individual
Carvalho CMRG, Fonseca CCC, Pedrosa JI	Health education on osteoporosis for elder university students.	2004	Latin Am School	Cycle	To prevent osteoporosis through educational activities.	PA	Pt SC	Thiollent, 1988	Pl Act Obs	consultation	Habit change concerning eating and physical activities.	Older adults were informed about osteoporosis and its prevention.	individual
Cesarino CB, Casagrande LDR	Chronic renal patients in hemodialytic treatment: nurse educational action.	1998	Latin Am Hospital	disease	To elaborate an educational plan about renal disease and hemodialytic treatment concerning the educational needs and previous knowledge of patients.	PA	Pt KB SC	Thiollent, 1988	Pt Act Obs Ref	consultation	Habit change; social engagement to struggle for chronic renal patients' interests concerning kidney transplant.	Patients had a better understanding of their hemodialytic state and started questioning nurses of the treatment unit.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Condon L, Ingram J	Increasing support for breastfeeding: what can Children's Centres do?	2011	Europe school	Hc st	To stimulate promotion and support for breastfeeding within Children's Centers.	AR	KB SC	Lingard <i>et al.</i> 2008	Pl Act Obs	consultation	Centers increased breastfeeding promotion and support. Relationships with health professionals improved, leading to better provision of health services. New links with health professionals were established.	Stakeholders of children's center and parents became aware of the importance of breastfeeding and developed practices addressing this issue.	individual
Evans PH <i>et al.</i>	Clinical Practice The WAKE UP study P. H. Evans <i>et al.</i> Development of an educational 'toolkit' for health professionals and their patients with prediabetes: The WAKE UP study.	2007	Europe PHC	Hc st	To develop an educational toolkit to address the information needs of primary health-care professionals and their patients regarding the management of prediabetes.	AR	Pt	Waterman H <i>et al.</i> 2001; Hampshire AJ, 2000.	Pl Ac r Refl Obs	compliance	Development of materials to address patient and health professional information needs; patients' behavior change; practitioners' practice towards prediabetes improved	Information about diabetes and prediabetes was delivered to patients and practitioners.	individual
Flicker S <i>et al.</i>	Survey Design From the Ground Up: Collaboratively Creating the Toronto Teen Survey.	2010	North Am PHC	Cycle	To develop a community-based, youth-friendly survey and study protocol with youth, academics, and community stakeholders.	CBPR	Pt	Israel <i>et al.</i> 1998; Minkler, Wallerstein, 2003	Pl Ac	consultation	A survey tool was developed to conduct further research.	Collaboration with youth improved and challenged the research team's understanding of youth sexual health issues. The youth learned about sexual health and gained valuable experience applying survey design principles.	individual
Frøta MA, Albuquerque CM, Linarra AG	Popular health education in caring for the undernourished child.	2007	Latin Am Hc Serv	Cycle	To identify parents' perception about health education and to propose actions of popular health education in the assistance of the undernourished child.	PA	KB	Barbier; 2002	Pl Act Ref	co-learning	None.	New awareness about the undernourished child in the community.	individual
Giachello <i>et al.</i>	Reducing Diabetes Health Disparities through Community-Based Participatory Action Research: The Chicago Southeast Diabetes Community Action Coalition.	2003	North Am PHC	minorities	To reduce diabetes disparity in Latin African American community.	PAR	Pt SC KB	Stringer, 1999; Fals-Borda, Raha-man, 1991.	Pl Act Obs Ref	consultation	Educational programs centers were installed in different facilities of Chicago. Further assistance for risk patients was provided.	Awareness of the community about diabetes morbidity and mortality and how to prevent/control it.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Goddard I, Mackey S, Davidson PM	Functional clinical placements: A driver for change.	2010	Australia Hc Serv	Hc st	To create a supervised professional experience placement model to develop a family health promotion intervention to improve the health and well-being of the family members and reduce risk for illness.	AR	Pt KB SC Cy	McMurray, 2003; McNiff <i>et al.</i> , 2003; Meyer, 2000; Waterman <i>et al.</i> 2001; Brown <i>et al.</i> 2004; Karim, 2001; Oliver, Peersman, 2001; Hart, Bond, 1995; Bryer, 1999	Pl Act Refl	co-operation	Extended role of the nurse for families of children with intellectual disabilities was promoted. The student nurses developed themselves as professionals, gaining confidence and experience in teaching and promoting social change. Development of an intervention model.	Awareness of the health needs of the families within an environment where rapport was developed. Project promoted stronger collaborative relationships between the project facilitators and the early intervention agencies.	individual
Heffernan C <i>et al.</i>	The Haida Gwaii Diabetes Project: planned response activity outcomes.	1999	North Am PHC	disease	To develop, implement and monitor a community directed approach to managing diabetes.	PAR	none	Hall 1982, Green <i>et al.</i> 1995, Herbert, 1996	Pl Act Obs	compliance	Change in diet and physical activity increase. There was a decrease in total cholesterol and a rise in HDL.	Diabetics were informed about diabetes and healthy habits.	individual
Hutchinson A, Lovell A	Participatory action research: moving beyond the mental health 'service user' identity.	2013	Europe Hc Serv	disease	To help people with mental health disease move beyond the illness identity.	AR	Pt SC	Reason, Bradbury 2008	Pl Act Refl	co-learning	'Transformation of participants' identities. Recovery of self-awareness and confidence in participants' own intellectual abilities.	Participants had the chance to learn more about themselves and tell their mental health story in a different manner.	individual
Karmaliani R <i>et al.</i>	Applying community-based participatory research methods to improve maternal and child health in Karachi, Pakistan.	2009	Asia PHC	minorities	To enhance the health of women and children in multilingual, multiethnic, low socioeconomic communities in Karachi, Pakistan.	CBPR	Pt KB SC	Israel <i>et al.</i> 1998; Minkler, Wallerstein, 2003	Pl Act	co-operation	None.	Literacy classes and economic skills.	individual
Kidd S, Kenny A, McKinstry C	Exploring the meaning of recovery-oriented care: An action-research study.	2015	Australia Hc Serv	disease	To inform the development of recovery-oriented services for people with psychosocial disability associated with mental illness.	cooperative inquiry	Pt KB PT	Townsend 2012; Schwartz <i>et al.</i> 2013; Kristiansen, Bloch-Poulsen, 2011; Heron, Reason, 2006; Reason, Bradbury 2008; Bradbury, Bergman, Lichtenstein, 2000	Pl Act Refl	co-learning	Mapping consumer participation within the organization; development of a workshop and resources that disseminated the group's discussion to the wider psychiatric service; an action plan was developed to address the issues identified from the research.	Development of workshops to promote change.	individual
Kim S <i>et al.</i>	Using Community-Partnered Participatory Research to Address Health Disparities in a Latino Community	2005	North Am PHC	minorities	To develop training with the community to transform members into health promoters to encourage a healthier lifestyle.	CPPR	Pt KB PT	Flaskerud, Nyamathi, 2000	Pl Act Refl Obs	compliance	Development of practices that encouraged the community to change their lifestyle and habits.	Health promoters training. Technical health knowledge was disseminated to the community.	individual
Koch T, Jenkin P, Kralic D	Chronic illness self-management: locating the 'self'.	2004	Australia Hc Serv	disease	To explore asthma self-management models in collaboration with the participant.	PAR	Pt Cy KB	Koch, Kralik 2001, Koch <i>et al.</i> 2002	Pl Act	co-option	Identification of three models of asthma management.	Participants realized they could take control of their own lives, and that it was crucial in managing the self.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Koch T, Kelly S	Identifying strategies for managing urinary incontinence with women who have multiple sclerosis.	1999	Australia Hc Serv	disease	To identify strategies for managing incontinence in women with multiple sclerosis (MS).	PAR	Pt Cy SC	Knight <i>et al.</i> 1997; Nichols <i>et al.</i> 1997; Reason <i>et al.</i> , 1994; Street, Robinson, 1995	Pl Act Ref	co-learning	Coping strategies were developed to manage the condition by those with Multiple Sclerosis themselves.	Participants shared experience about urinary incontinence and other problems caused by multiple sclerosis.	individual
Levinson KL <i>et al.</i>	The Peru Cervical Cancer Prevention Study (PERCAPS): Community Based Participatory Research in Manchay, Peru.	2013	Latin Am PHC	Cycle	To test HPV in female persons and treat positive cases.	CBPR	Pt	Minkler, Wallerstein, 2008	Pl Act	co-option	Large-scale delivery of preventive health care, with cervical cancer screening and vaccination as the target interventions.	CHW were taught how to collect data.	individual
Liu J <i>et al.</i>	Community-based participatory research (CBPR) approach to study children's health in China: Experiences and reflections.	2011	Asia School	Cycle	To examine the long term impacts of early exposure to environmental toxins (mainly lead) and malnutrition on the development of children's and adolescents' neurocognitive and neurobehavioral outcomes.	CBPR	Pt KB SC	Israel <i>et al.</i> 203; 20015; Ali <i>et al.</i> 2008	Pl Act	co-option	The dissemination of the research results led to further research; free measurements of blood pressure and body mass index as well as simple physical exams were offered	School nurses were trained on exposure prevention and standard height/weight measurement.	individual
Lui, Gao Pussari	Using Participatory Action Research to Provide Health Promotion for Disadvantaged Elders in Shaanxi Province, China.	2006	Asia PHC	Cycle	To enable various stakeholders working within a coordinated framework to address the social, economic, and environmental factors that adversely influence elders' health in an effort to promote healthy lifestyles among elders.	PAR	Pt KB SC	Zoucha <i>et al.</i> 2003; Naylor <i>et al.</i> 2003	Pl Act Ref Obs	co-operation	The community was given land to generate funding by planting and selling plants and herbs.	Older adults had the chance to be heard. Numerous changes occurred regarding the elders' self-awareness, attitudes toward health promotion, and health behaviors and skills.	individual
Ma GX <i>et al.</i>	A CBPR to a Hepatitis B intervention for Korean Americans.	2012	North Am PHC	minorities	Developing, implementing, and evaluating a culturally appropriate church-based HBV screening and vaccination intervention program.	CBPR	Pt KB SC	Israel <i>et al.</i> 2001; Israel <i>et al.</i> 1998, Wallerstein, Duran, 2001; Tandon, Kwon, 2009; Viswanathan <i>et al.</i> , 2004	Pl Act Ref	compliance	Significant increases in screening and vaccination rates in the intervention group compared with the control group.	Community partners training about research design and implementation procedures; clinical partners gained knowledge of research and expanded their service.	individual
McQuiston C <i>et al.</i>	Community-Based Participatory Research with Latino Community Members: Horizonte Latino.	2005	North Am PHC	minorities	To demonstrate how academicians and community members came together as researchers to generate the preliminary data that were used to write the background and significance section and portions of the preliminary studies section of a grant proposal.	CBPR	Pt Cy SC	Chisolm, Elden, 1993; Flakerud, Nyamathi, 2000; Fals Borda, 2001; McQuiston, Choi-Hevel, Clawson, 2001; Reason, 1988; Stringer, 1996	Pl Act Ref	co-operation	The researchers were given a road map for granting the development of "Gender, Migration, and HIV Risks Among Mexicans" proposals.	Development of a local theory of HIV risk in their community.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Mendenhall T <i>et al.</i>	The Family Education Diabetes Series (FEDS): community-based participatory research with a midwestern American Indian community.	2010	North Am PHC	minorities	To describe and report pilot data from the FEDS (The Family Education Diabetes Series) project.	CBPR	Cy Pt KB SC	Lewin 1946; Minkler, Wallerstein 2003; Rahman, Fals-Borda 1991; Kemmis, McTaggart 2000; Heron, Reason 2001; Kelly, Mock, Tandon 2001; Ludema, Cooperrider, Barrett 2001; Pyrch, Castillo 2001; Bell <i>et al.</i> 2004; Torre, Fine 2005; Baum, MacDougall, Smith 2006; Byrne, Sahay 2006; Braithwaite <i>et al.</i> 2007; Pyrch 2007; Wilson, Ho, Walsh 2007; Cammarota, Fine 2008; Classen <i>et al.</i> 2008	Pl Act Obs	collective action	Participants' average blood pressure was significantly reduced; metabolic control was significantly improved; participants' average weight loss had significantly improved; construction of FEDS field manual.	Knowledge/education about health, targeting the most vulnerable facets.	individual
Naidu A <i>et al.</i>	Exploring oral health and hygiene practices in the Algonquin community of Rapid Lake, Quebec.	2014	North Am PHC	minorities	To create a culturally adapted activity to promote children's oral health and hygiene practices.	CBPR	KB	Harrison, White, 1997	Pl Act Ref	compliance	Development of activities designed to increase children's oral health knowledge and behaviors both at school and at home where parents were directly implicated.	Increased capacity in oral health promotion in local youth, community research partners and the student researcher.	individual
Nilvarangkul K <i>et al.</i>	Action Research to Strengthen Women Weavers' Self-Care in North-East Thailand.	2012	Asia Occup Health	disease	To improve self-care and work safety practices among women weavers.	AR	Cy	Nilvarangkul <i>et al.</i> , 2006	Pl Act Ref	collective action	Implementation of individual health-care changes and increase of group leadership capacity for promoting general health and work safety practices among the groups.	Identification of personal and work-related health issues, environmental contamination concerns, and lack of social and community support systems.	individual
Onella AM <i>et al.</i>	Mental health promotion in comprehensive schools.	2014	Europe School	Hc st	To develop a professional practice model of mental health promotion in a comprehensive school.	AR	Pt Cy SC KB	Genat, 2009; Levin, 2012; Carr 2011; O'Brien 2001, Potvin <i>et al.</i> 2010	Pl Act Obs Ref	co-operation	Mental health promotion interventions were delivered, with increasing experiences of positive mental health.	Participants in the workshops produced knowledge on workable mental health promotion according to their perceptions, professional experience and needs.	individual
Ramsden VR, McKay S, Crowe J	The pursuit of excellence: engaging the community in participatory health research.	2010	North Am PHC	disease	To engage the communities being served by PHC in the development of programs to enhance health and well-being with a special interest in metabolic syndrome.	CBPR	Pt KB SC	Minkler, Wallerstein, 2003; Israel <i>et al.</i> 1998, 2003; Macaulay, 1999.	Pl Act	co-option	None.	Integration of elements from primary health care and social responsibility in such a way that capacity was increased, expertise of each person was valued and communities felt empowered.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Rios-Cortázar V. <i>et al.</i>	Child narrative in school settings. A strategy for health promotion.	2014	Latin Am school	Cycle	To describe the process of development of the capacities of a school population concerning eating habits, physical activities and obesity prevention.	IAP	SC KB	Viswanathan <i>et al.</i> 2004; Vaughn L, Wagner E, Jacquez F, 2013	PI Act Ref	compliance	Development of individual school performance.	Recognition of the promotion of relations and action that promote a violence-free environment.	individual
Reberte LM, Hoga LAK, Gomes ALZ.	Process of construction of an educational booklet for health promotion of pregnant women.	2012	Latin Am PHC	Cycle	To design a booklet for pregnant women, providing them with accessible information about pregnancy.	PA	Pt Cy KB	Thiollent, 2005	PI Act Ref	consultation	Educational material for pregnant women was designed.	Systematization of previous knowledge in a didactic material format.	individual
Rebert LM, Hoga LAK	The development of pregnant women using the body approach.	2005	Latin Am hospital	Cycle	To identify the physical and emotional discomfort of pregnant participants; to describe the resources of the body approach used to relieve discomfort informed by pregnant women.	PA	Pt Cy KB SC	Thiollent, 2005	PI Act Obs Ref	co-learning	Well-being promotion.	Participants learned body techniques to promote well-being.	individual
Smith <i>et al.</i>	Translation to Practice of an Intervention to Promote Colorectal Cancer Screening Among African Americans.	2012	North Am PHC	disease	To promote colorectal cancer screening among African Americans.	CBPR	Pt	Israel, 1998	PI Act	co-option	Participants were screened for colorectal cancer.	Staff were trained to collect data.	individual
Uribe BPM <i>et al.</i>	Health education on: an experience with indigenous population from the department of Chocó.	2013	Latin Am PHC	minorities	To improve the health conditions and eating habits of the indigenous community.	IAP	none	Goyette, Lessard-Hébert, Susman, Evered, 2010 Bosco Pinto, 1987	PI Act Ref	co-learning	Development of a booklet about nutritional aspects. Subject participation enabled the acceptance of the material produced.	Educational actions using games, texts and discussions as tools.	individual
Vasconcelos VM <i>et al.</i>	Child care in nursing and health education: mother's perception in family health strategy.	2012	Latin Am PHC	Cycle	To describe the experience of mothers about their children's care and their perception about child care in nursing.	PA	Pt	Thiollent, 2003.	PI Act	consultation	Participants changed care practices with their children.	Participants acquired technical knowledge about child care.	individual
Vinholes ER, Alano GM, Galato D	Community's Perception Towards the Performance of Pharmaceutical Service Care in the Health Education Actions Related to Rational Medicine Use.	2009	Latin Am PHC	disease	To present the experience of Pharmaceutical attention service in community actions to promote the rational use of medical drugs.	PA	none	Minayo, 2004	PI Act	compliance	Behavior change regarding the use of medical drugs (observed after educational action through patients' reports).	Knowledge about rational medical drugs use (self-medication, use and right time to use and treatment adherence).	individual
Yang YM <i>et al.</i>	Health Empowerment Among Immigrant Women in Transnational Marriages in Taiwan.	2015	Asia PHC	minorities	To develop, implement, and evaluate a theory-based intervention designed to promote increased health empowerment for married migrant women.	PAR	Pt Cy SC KB	McNiff, 2013; Reason, Bradbury, 2008; Tapp, Dulin, 2010; Koshy, 2005	PI Act Ref	compliance	Development of psychological resilience, increase of health literacy, capacity of building social networks, enhancement of sense of self-worth.	Development of psychological resilience, increase of health literacy, capacity of building social networks, enhancement of sense of self-worth.	individual

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Zoellner <i>et al.</i>	H.U.B city steps: methods and early findings from a community-based participatory research trial to reduce blood pressure among African Americans.	2011	North Am PHC	disease	To address a lack of physical activity and a high prevalence of cardiovascular disease.	CBPR	Pt	Wallestein, Duran, 2003; Viswanathan <i>et al.</i> 2004	Pl Act Obs	compliance	Significant decreases in primary blood pressure outcomes; adherence to pedometer diary self-monitoring was better than education session participation.	Technical knowledge about prevention of cardiovascular disease.	individual
Ainsworth D, Diaz H, Schmidlein MC	Getting More for Your Money: Designing Community Needs Assessments to Build Collaboration and Capacity in Hospital System Community Benefit Work.	2013	North Am hospital	Hc st	To establish a community health needs assessment (CHNA) conducted by four nonprofit hospital systems to build sustained collaborative practices among the hospitals.	CBPR	Pt KB SC	Minkler, Wallerstein, 2008; Robson, 2002.	Pl Act	compliance	Development of external and internal collaborative practices; meetings were monthly set; fewer hierarchic decisions in the hospital and more community level perceptions were taken into account; relationship between hospital stakeholders improved = expanded peer networks.	Understanding of potential community partners.	organizational
Bergdahl E <i>et al.</i>	Development of nurses' abilities to reflect on how to create good caring relationships with patients in palliative care: an action research approach.	2011	Europe hospital	Hc st	To enhance nurses' abilities to reflect on how to create good caring relationships with patients in advanced home care.	AR	Pt KB Cy	Waterman <i>et al.</i> 2001	Pl Act Obs Ref	co-learning	Each case was treated differently and more accurately than before the AR process. Clinical reasoning and new practices were developed.	The participants increased their ability to reflect on how to create caring relationships and were helped to understand clinical and ethical problems.	organizational
Bucchi SM, Mira VL	Redesigning the nurse admission training process at the intensive care unit.	2010	Latin Am hospital	Hc st	To analyze the redesign of the admission training process (ATP) of intensive care nurses.	PA	Pt Cy KB SC	Thiollent, 2008	Pl Act Ref	co-operation	Redesign of the admission training process (ATP) of intensive care nurses.	The complexity of the admission training was exposed.	organizational
Clancy A	Practice model for a dementia outreach service in rural Australia.	2015	Australia Hc Serv	Hc st	To investigate the nature and delivery of a service model in a rural dementia outreach service.	PAR	Pt	Koshy, Waterman, 2011; Morton-Coooper, 2000	Pl Act Refl	compliance	A Practice Model of Dementia Outreach Service was established as a result of the focus groups (data extraction).	Participants shared points of views.	organizational
Cook NF, Deeny PD, Thompson K	Management of fluid and hydration in patients with acute subarachnoid haemorrhage – an action research project.	2004	Europe Hospital	Hc st	To determine how nurses presently see their role in relation to fluid management in patients with subarachnoid haemorrhage, to determine the cues to guide their practice, and how this role corresponds to current patient care. A final objective was to identify how the nurses' role can be maximized to provide optimal patient care.	AR	Pt KB SC	Parahoo, 1997	Pl Act	compliance	None	Nurses became more aware of their roles in the unit concerning hydration and fluid management. Nurses became more knowledgeable about these issues too. The focus group led to clarification of their roles.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Crozier K, Moore J, Kite K	Innovations and action research to develop research skills for nursing and midwifery practice: the Innovations in Nursing and Midwifery Practice Project study.	2012	Europe hospital	Hc st	To develop sustainable resources in the hospital to encourage, support and develop research activity and innovation among nurses and midwives.	AR	Cy Pt SC	Coghlan, Casey, 2001; Elliott, 1991; Kemmis, McTaggart, 2000; Morrison, Lilford, 2001; Heikkinen <i>et al.</i> 2007	Pl Act Obs Ref	co-operation	Changes in clinical areas; development of individual nursing and midwifery innovation projects; improvement of patient care and reduced length of stay in hospital and more efficient management of patient care.	Development of research awareness and skills among the nursing staff; opportunities to develop their own evidence base and to use their clinical expertise to inform innovation were provided.	organizational
Daltuva JA <i>et al.</i>	Building a Strong Foundation for Occupational Health and Safety: Action Research in the Workplace.	2009	North Am Occup Health	disease	To address occupational health and safety issues in an organized workplace.	AR	Pt KB SC Cy	Elden, 1981; Whyte, 1991; Israel <i>et al.</i> , 1992; Bradbury <i>et al.</i> , 2008; Reason, Bradbury, 2001; Gaventa, Cornwall, 2008; Gardell, 1982; Laurell <i>et al.</i> , 1992; Schulz <i>et al.</i> 2003	Pl Act Obs Refl	co-learning	Recognition of the need for data collection and analysis, so that informed decisions could be made; development of communication and facilitation skills of group members.	Communication training; recommendations for necessary ergonomic improvements, and ergonomics awareness training for the AR group; power sharing.	organizational
Day J, Higgins I, Koch T	The process of practice redesign in delirium care for hospitalised older people: A participatory action research study.	2009	Australia hospital	Hc st	To improve clinical practice in a hospital ward for older adults.	PAR	Pt Cy	Koch, Kralik, 2001, 2006; Koch <i>et al.</i> , 2002	Pl Act Obs Refl	co-learning	Changes in clinical areas; development of individual nursing and midwifery innovation projects; improvement of patient care and reduced length of stay in hospital and more efficient management of patient care.	Raising awareness about delirium and its prevention.	organizational
Deery R	An action-research study exploring midwives' support needs and the effect of group clinical supervision.	2005	Europe hospital	Hc st	To explore community midwives' views and experiences of their support needs in clinical practice, and then to identify how they would wish to receive such support.	AR	Pt KB SC	Meyer, Bateup, 1997; Waterman <i>et al.</i> , 2001; Winter, Munn-Giddings, 2001; Deery, Kirkham, 2000; Hart, Bond, 1995; Morrison, Lilford, 2001; Maguire, 2001	Pl Act	compliance	None.	Midwives learned to value what they can measure. Understanding that midwifery needs a different way of thinking. However, the midwives worked in a bureaucratic, hierarchical NHS system, in which a technocratic paradigm of healthcare existed, and this has been shown to be intolerant of different ways of thinking.	organizational
Deery R, Hughes D	Supporting midwife-led care through AR: a tale of mess, muddle and birth balls.	2004	Europe hospital	Hc st	To support midwives in changing their practice.	AR	Pt Cy SC	McNiff, 2002; Schön, 1983; Edwards, Ribbon, 1998; W; Stringer, 1996; Waterman <i>et al.</i> 2001; Elliott, 1991; Atkinson, 1994; Winter, Munn-Giddings, 2001	Pl Act Rfel	co-learning	Development of an active physiological birth. Enrichment of midwives' partnership with their clients.	Development of a common philosophy by recognizing the difficulty of the unit and the staff.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Delva D <i>et al.</i>	A new model for collaborative continuing professional development.	2008	North Am PHC	Hc st	To develop a model of Continuing Professional Development using a case-based approach that would allow the exchange of information between primary health care providers in the community.	PAR	collaboration	Macaulay <i>et al.</i> , 1998	PI Act	compliance	Personal interaction and communication in the meetings, reducing power hierarchies.	Information technology was promoted as a tool for effective knowledge sharing and communication.	organizational
Dewing J, Traynor V	Admiral nursing competency project: practice development and action research.	2005	Europe Hc Serv	Hc st	To work collaboratively with the practitioners to develop a competency framework.	AR	collaboration	Holter, Schwartz-Barcott, 1993; Carr, Kemmis, 1986; Webb, 1989; Kelly, Simpson, 2001; Greenwood 1994; Hart 1996; Le Gris <i>et al.</i> 2000; Coghlan, Casey 2001; Kelly, Simpson 2001; Williams, Prosser, 2002	PI Act Refl	compliance	Development of a specialist nursing competency framework.	Practitioners engaged in and experienced learning about how to research their own practice and the consequences of doing this; increase in awareness about the culture within their teams and organizations.	organizational
Finley GA, Foregon PF, Arnaout M	Action Research: Developing a Pediatric Cancer Pain Program in Jordan.	2008	Europe Hc Serv	Hc st	To develop, implement, and evaluate a pediatric pain management program at a Children Cancer Center.	AR	SC KB Cy	Dick B, 2002;	PI Act Ref Obs	consultation	Evidence-based pain evaluation and prescriptions were established. Creation of family education material and a pediatric pain management curriculum for health professionals.	Staff education/training.	organizational
Galvin K <i>et al.</i>	Investigating and implementing change within primary health care nursing team.	1999	Europe PHC	Hc st	To understand the health service and propose changes.	AR	KB SC Cy	Waterman, 1994; Hart, Bond, 1995; Role, 1995	PI Act Obs Ref	co-operation	Implementation of new practices (there were problems during the implementation).	Researchers and stakeholders were aware of the service problems (practical and communication).	organizational
Gonçalves CA <i>et al.</i>	Strategies for tackling absenteeism in dental appointments in the Family Health Units of a large municipality: action research.	2015	Latin Am PHC	Hc st	To analyze the reasons of absence in dental appointments in a health care unit and to implement strategies for its reduction.	PA	Pt KB SC	Franco, 2005; Adelman, 1993	PI Act Obs Ref	co-learning	Development of a protocol and creation of awareness practices and team involvement. A single patients' record was adopted. Reduction of 66% in absences.	Reflection about the reasons of absences in the PHC.	organizational
Hills M, Mullet J, Carroll F	Community-based participatory action research: transforming multidisciplinary practice in primary health care.	2007	North Am PHC	Hc st	To develop a model that uses multidisciplinary practice teams to provide a range of coordinated, integrated services and put it into practice.	CBPAR	Pt Cy KB SC	Israel <i>et al.</i> 1998	PI Act Rfl	co-learning	Development of a framework for multidisciplinary team practice and integrated client care.	Consensus that there is a discrepancy between the ideal way to practice and real-life examples. The authors conclude that the objective can only be achieved once there is a change in the underlying structures, values, power relations, and roles defined by the health care system and the community at large, where physicians are traditionally ranked above other care providers.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Hito PD <i>et al.</i>	Modification of nursing practice through reflection: participatory action research.	2001	Europe Hospital	Hc st	To promote reflection about nursing care using a participative process to change nursing practice.	PAR	Cy	Kemmis, McTaggart, 1988	Pl Act Ref Obs	collective action	Elaboration of nursing practice change strategies.	The participants developed self knowledge and critical and holistic	organizational
Hummel-voll JK, Severinscon E	Researchers' experience of co-operative inquiry in acute mental health care.	2005	Europe Hc Serv	Hc st	To further the nursing staff's professional competence, and to create a fruitful learning environment for mental health care students, as well as for staff.	AR/co-operative inquiry	KB Pt SC	Reason 1994; Coghlan, Brannick 2001; Reason, Bradbury, 2001; Morton-Cooper, 2000	Pl Act Ref	compliance	None.	Increase in participants' collective knowledge through shared insights about clinical experience.	organizational
Iyamuremye, Brys-wicz	The development of a model for dealing with secondary traumatic stress in mental health workers in Rwanda.	2015	Africa Hc Serv	Hc st	To develop a comprehensive model to manage the effects of Second Trauma Stress in mental health workers.	AR	Pt Cy	Koshy, 2010	Pl Ac Ref	co-option	A model to manage the effects of Second Trauma Stress in mental health workers was built and tested.	None.	organizational
Jesus MCP <i>et al.</i>	Permanent education in nursing in a university hospital.	2011	Latin Am Hospital	Hc st	To identify demands and expectations, factors that interfere in the qualification of nursing workers of a university hospital and to propose permanent education training.	PA	Pt Cy KB SC	Thiollet, 2009 Morin, 2004	Pl Act Obs Ref	consultation	A proposal for the creation of a Nursing Permanent Education Center was developed.	Reflections about nursing work reality, enabling mobilization of workers, perception of problems according to the participants.	organizational
Kelleher J, Mc Auliffe E	Developing clinical governance in a service for people with intellectual disabilities: An action research approach.	2012	Europe Hc Serv	Hc st	To explore the issues in implementing a comprehensive clinical governance framework in an organization.	AR/co-operative inquiry	Pt SC KB	Greenwood, Levin, 2007; Coghlan, Brannick, 2010; Meyer, 2001	Pl Act Ref	consultation	Staff at all levels began to take ownership of the clinical governance agenda; promotion of collaboration across clinical and non-clinical disciplines; it is anticipated that it will result in new approaches to service quality in the organization in the future.	Knowledge about formal and informal practices at the frontline, identifying strengths in the system, provided building blocks for further improvement.	organizational
Kelly D, Simpson S, Brown P	An action research project to evaluate the clinical practice facilitator role for junior nurses in an acute hospital setting.	2002	Europe hospital	Hc st	To establish clinical practice facilitators (CPFs) to support both healthcare assistants and newly qualified registered nurses to enhance their competence and clinical skills.	AR	Pt Cy KB SC	Meyer, 1993; Levin, 1946; McNiff, 1991	Pl Act Ref Ob	compliance	Development of a program for newly qualified nurses that covers a number of skills; establishment of the CPF role and proving the evidence of its effectiveness.	None.	organizational
Kennedy M	Improving pressure ulcer prevention in a nursing home: an action research.	2005	North Am Hc Serv	Hc st	To implement best practice in pressure ulcer prevention.	AR	Cy	Hart, Bonde, 1995; Morton-Cooper, 2000	Pl Act Ref Obs	compliance	Improvement in the practice of pressure ulcer prevention; improvements in communication, outcome measures, documentation and increase in individual accountability.	None.	organizational
Kristensen HK, Borg T, Hounsgaard L	Facilitation of research-based evidence within occupation therapy with stroke rehabilitation.	2011	Europe Hc Serv	Hc st	To investigate aspects that facilitate occupational therapists' reasoning when implementing evidence-based practice within stroke rehabilitation.	PAR	Pt	Kemmis, McTaggart, 2005; Stringer, 2007	Pl Act Ref Obs	co-learning	Clinical practice transformation through implementation of evidence-based practice.	Therapists were able to analyze, reflect and change their own attitudes and ways of working.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Manenti SA <i>et al.</i>	The construction process of managerial profile competencies for nurse coordinators in the hospital field.	2012	Latin Am Hospital	Hc st	To build the management competencies profile for nurse coordinators.	PA	Pt KB SC	Thiollent, 1992	Pl Act Obs Ref	co-learning	A professional development plan was built based on competencies that respond to the technical, ethical-political, communicative and citizenship development domains.	Understanding of the constitutive elements of the management work process and its competencies.	organizational
McKellar L, Picombe JL, Henderson AN	Action research: a process to facilitate collaboration and change in clinical midwifery practice.	2010	Australia Hospital	Hc st	To enable midwives to engage in collaborative research and enhance their practice.	AR	Pt Cy KB SC	Lewin, 1946; Kemmis, McTaggart, 1982; Greenwood, 1994; Owens <i>et al.</i> 1999; Wilkinson, Ehrich, 2000; Waterman <i>et al.</i> 2001; Hart, Bond, 1995; Meyer, 2000; Closs, Cheater, 1999; Winter and Munn-Giddings, 2001	Pl Act Ref Obs	co-operation	Actions to improve the provision of postnatal education and support were proposed (brochure and booklet).	Midwives realized parents' needs.	organizational
Mello ALSF, Moyses SM	Best practices in local health systems: focusing on the elderly's oral health.	2010	Latin Am PHC	Hc st	To use best practices in the elderly's oral health.	PA	SC KB	Barbier, 2007	Pl Act	consultation	A list of best practices in the elderly's oral health was built concerning administration, work process and education.	Discussion about the foundation, practices and elements of the environment that influence in the project and organization of the health system.	organizational
Minkler M <i>et al.</i>	Using Community-Based Participatory Research to Design and Initiate a Study on Immigrant Worker Health and Safety in San Francisco's Chinatown Restaurants.	2010	North Am Occup Health	Disease	To study restaurant working conditions and worker health in San Francisco's Chinatown and the restaurant-level determinants of workers' health and occupational injuries and illnesses.	CBPR	Pt KB SC	Green <i>et al.</i> , 1995; Israel <i>et al.</i> , 1998; Minkler, 2005; Minkler, Wallerstein, 2008	Pl Act	consultation	A worker survey instrument and a restaurant observational checklist were collaboratively developed and applied.	Training of Chinatown restaurant workers about worker health and safety, workers' rights, the differences between direct service, advocacy and organizing, and about community involvement in scientific research.	organizational
Mitchell EA <i>et al.</i>	Towards rehabilitative handling in caring for patients following stroke: a participatory action research project.	2005	Europe hospital	Hc st	To help nurses take ownership of their moving and handling practice.	PAR	Cy Pt KB SC	Holter, Schwartz-Barcott, 1993; East, Robinson, 1994; Cochlan, Casey, 2001	Pl Act Obs Ref	consultation	There were changes in nurses' and physiotherapists' practices.	Nurses identified that equipment, environment, communication and teamwork strategies would help them in rehabilitative moving and handling practice.	organizational
Monteiro EMLM; Vieira NFC	Health education based on culture circles.	2010	Latin Am PHC	Hc st	To propose the (re)construction of Health Education actions that address the necessary competencies of PHC nurses for an educational practice.	PA	none	Peruzzo CMK, 2005	Pl Act	co-learning	Proposal of (re)construction of actions in the Health Education.	Discussion on the performance of PHC nurses for an education praxis in reflective and critical health.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Moxham L <i>et al.</i>	Recognising our role: improved confidence of general nurses providing care to young people with a mental illness in a rural paediatric unit.	2010	Australia hospital	Hc st	To implement and evaluate strategies suggested by general nurses to improve management of children and adolescents with mental health problems admitted to a pediatric unit of a general hospital.	PAR	Pt Cy KB SC	Stringer 2007; Holter, Schwartz-Barcott 1993; Hart, Bond 1995; Rolfe 1996; Coghlan, Casey, 2001	Pl Act Ref Obs	consultation	Implementation of education sessions and organizational tools. Changes in the unit organization were effected. Two additional policies were introduced.	Nurses understood their strengths and weaknesses and acknowledged and challenged the assumptions on which their ideas, feelings and actions about patients with mental health issues are based. Participants also recognized the existing skills and expertise they possess.	organizational
Nicoll L	The study of biology as a cause of anxiety in student nurses undertaking the common foundation programme.	1996	Europe school	Disease	To identify the major causes of anxiety and identify methods of reducing this anxiety in present students, as well as minimizing anxiety in those students commencing their nurse education.	AR	Cy	Nolan, Grant, 1993	Pl Act Ref	co-operation	Implementation of changes concerning the biology course.	Identification of the major causes of anxiety in students when studying biology.	organizational
Oikasu EM <i>et al.</i>	Improving the quality of nursing documentation: An action research project.	2014	Africa Hospital	Hc st	To improve nurses' documentation of their patient assessments in order to enhance the quality of nursing practice.	AR	Pt Cy Sc KB	Dick, 2002	Pl act Obs Refl	compliance	Culture change by implementing organizational instruments.	Proper documentation training.	organizational
Oldman C, Broadi D, Nmatsakana N	Community health equipment loans: developing a clinical prioritization system.	2003	Europe PHC	Hc st	To develop an objective method for making equipment loans to home-based patients.	AR	Pt	Holter, Schwartz-Barcott, 1993; Hart, Bond, 1995; Le May, Lathlean, 2001	Pl Act Obs Ref	consultation	Development and implementation of a clinical referral form.	Identification of patients' needs.	organizational
Pratt RJ <i>et al.</i>	Kaleidoscope: a 5-year action research project to develop nursing confidence in caring for patients with HIV disease in west India.	2001	Asia Hc Serv	Hc st	To build clinical confidence and facilitate relevant changes in nursing practice.	AR	Cy SC	Elliott 1991; Lewin 1946; 1952; Carr, Kemmis 1986; Hart, Bond, 1995; Lathean, 1994	Pl Act Obs	compliance	Application of a 10-day educational program, a change intervention; development and application of individual and partnership action plans focused on bringing about changes in nursing practice within well-defined fields of action. The process inspired professionals to greater personal and professional commitments.	Increased their confidence and knowledge and decreased their fear of contagion.	organizational
Queiroz DM, Silva MRF, Oliveira LC	Continuing Education for Community Health Agents: potentialities of an education guided by the framework of Health and Popular Education.	2013	Latin Am PHC	Hc st	To show the knowledge building and coping actions by community health agents.	PA	Pt Cy SC	Barbier, 2007	PL Act Ref	co-learning	Health promotion proposals were designed.	Community health agents attributed new meaning to their work process; new comprehensions about ways to produce healthy; technical knowledge was built by community health agents.	organizational

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Ramos CCS <i>et al.</i>	Invasive hemodynamic monitoring at bedside: nursing evaluation and nursing care protocol.	2007	Latin Am hospital	Hc st	To establish parameters used by nurses in the intensive care unit when caring for hemodynamic monitored patients and to propose a nursing care protocol.	PA	Pt	Polir, Beck, Hungler, 2004	PI Act Ref	compliance	Development of a protocol for decision making for nursing proceedings.	Better technical comprehension of the catheter to enhance nursing care.	organizational
Rasmussen K <i>et al.</i>	Worker Participation in Change Processes in a Danish Industrial Setting.	2006	Europe Occup Health	disease	To study the development and implementation of intervention directed at the work environment.	PAR	Pt SC KB	Schurman, Israel, 1995; Doos, Backström, 2000	PI Act Obs	compliance	The role of employee elected safety representatives was changed from one of controlling and "policing" to that of safety advisors: less hierarchical management system. Improvements in the psychosocial work environment and safety climate, reduction in the incidence of eczema, and reduction in the incidence of occupational accidents.	More collective understanding of safety as everyone's shared responsibility.	organizational
Robinson A, Street A	Improving networks between acute care nurses and an aged care assessment team.	2004	Australia Hospital	Hc st	To investigate the possibilities for facilitating the transition of older adults from hospital to home through improving the working relationship between nurses and members of a multidisciplinary aged care assessment team (ACAT).	AR	Cy Pt SC KB	Street, 2002; Kemmis, 2001; Simon, 1988; Kinchloe, McLaren, 1994; Street, Robinson, 1995	PI Act Ref Obs	co-learning	Nurses became more involved in discharge planning. Establishment of collaborative partnerships between nurses and ACAT, which enhanced effective discharge planning.	Nurses developed knowledge of services available to support older adults following discharge.	organizational
Rolfe G, Phillips LS	The development and evaluation of the role of Advanced Nurse Practitioner in Dementia – an action research project.	1997	Europe Hc serv	Hc st	To develop and evaluate the role of a nurse practitioner in dementia inductively from first principles.	AR	Pt SC KB	Ebbutt, 1985; Usher, Bryant, 1989; Schon, 1983	PI Act Obs	consultation	Development of a new role of Advanced Nurse Practitioner (ANP) in dementia; improvement in the service for people with dementia.	Understanding of specific needs of the service, patients and caregivers	organizational
Rowe M <i>et al.</i>	Going to the source: creating a citizenship outcome measure by CBPR methods.	2012	North Am Hc serv	disease	To develop a greater understanding of the construct of citizenship and an instrument to assess the degree to which individuals, particularly those with psychiatric disorders, perceive themselves to be citizens in a multifaceted sense.	CBPR	Pt	Viswanathan <i>et al.</i> 2004; Wallerstein, Duran, 2006; Fine <i>et al.</i> 2003	PI Act Ref	consultation	Development of an instrument to help practitioners and researchers develop more targeted and effective citizenship interventions and approaches for persons with mental illnesses and to identify areas of desired change and action to fully achieve specified aspects of citizenship.	Discussion about citizenship meaning.	organizational

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Author	Title	Year	Country/city of origin/context	Population	Aim/purpose	Approach	Cited principles	Cited authors	Action research cycle	Type of participation	Social change	Knowledge building	Domain
Rowley J, Taylor B	Dying in a rural residential aged care facility: an action research and reflection project to improve end-of-life care to residents with a non-malignant disease.	2011	Australia Hc serv	Hc st	To examine ways in which nursing care could be provided to maximize the likelihood of a good death, to identify barriers nurses perceived to prevent optimal end-of-life care to dying residents and to explore the relationships between nurses and relatives of the dying resident, with the intention of improving care.	AR	Cy SC	Taylor 2006	PI Act	co-learning	Development of strategies for sharing the issues with their colleagues and raising staff awareness.	Participants understood that they could be proactive in improving the care they give to people dying from a non-malignant disease. Understanding of the need to improve various aspects of end-of-life care.	organizational
Sanarers D, Heliker D	Implementation of an Evidence-Based Nursing Practice Model: Disciplined Clinical Inquiry.	2002	North Am hospital	Hc st	To describe the implementation of a nursing process change model, Disciplined Clinical Inquiry (DCI).	AR	Pt KB SC	Greenwood, Levin, 1998; Stringer, 1996	PI Act Refl	compliance	Nurses were empowered to become reflective practitioners, competent in problem solving and evidence-based practices, collaborators, change agents, and patient advocates.	Training of skills like flexibility, practicality, and partnerships between academia and clinicians.	organizational
Spirig <i>et al.</i>	The Advanced Nursing Practice Team as a Model for HIV/AIDS Care-giving in Switzerland	2010	Europe Hospital	Hc st	To enhance nursing care at the HIV clinic.	PAR	Pt Cy KB SC	Lewin, 1946; Titchen, Binnie, 1994	PI Act Obs	co-learning	Specialization of each nurse in a self-selected topic within HIV/AIDS care.	Nurses on the team became more educated and refined their clinical expertise because they were offered a coordinated range of skills, expertise, and clinical experience in a setting of interdisciplinary support.	organizational
Strandmark M, Rahm G	Development, implementation and evaluation of a process to prevent and combat workplace bullying.	2014	Europe Hospital	Hc st	To develop and implement an intervention program in collaboration with workplace personnel, to evaluate the process as a vehicle to prevent and combat bullying.	CBPR	none	Minkler, Wallerstein, 2008	PI Act	co-operation	The atmosphere at the workplace improved; collaboration between and within the group was stronger; and the supervisor worked continuously to prevent and combat bullying, using the humanistic values suggested.	Employees were more aware of bullying problems.	organizational
Thach SB, Eng E, Thomas C	Defining and Assessing Organizational Competence in Serving Communities at Risk for Sexually Transmitted Diseases.	2002	North Am Hc Serv	Hc st	To develop an assessment tool to help health agencies enhance their capacity to provide sexually transmitted disease (STD) care to communities at risk and close the gap of racial disparities in health.	AR	Cy KB	Denzin, Lincoln, 1994	PI Act	co-option	A method to assess an agency's organizational competence was developed; the organizational competence of agencies serving communities at risk for STDs was defined.	None.	organizational
Tolson D <i>et al.</i>	Constructing a New Approach to Developing Evidence-Based Practice with Nurses and Older People.	2006	Europe Hc Serv	Hc st	To develop approaches to promote the attainment of evidence-based nursing care.	AR	Pt Cy	Reason, Bradbury 2008	PI Act	co-learning	Construction of an internet-based, practice-development college. A procedural model for developing and demonstrating care guidance was piloted.	Researchers understood practice development and ways to work with nurses and older people.	organizational

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Ullrich S, McCutcheon H, Parker B	Reclaiming time for nursing practice in nutritional care: outcomes of implementing Protected Mealtimes in a residential aged care setting.	2011	Australia Hc Serv	Hc st	To improve nursing practice in nutritional care.	AR	Pt Cy KB SC	2001, Reason, Bradbury 2006; Stringer, 2007	Pl Act Obs	consultation	Protected Mealtimes was tailored for the residential aged care unit by changing nurses' schedules.	Understanding and extension of nurses' roles in nutritional care.	organizational
Van Heerden C, Marren C, van Rensburg ESJ	Strategies to sustain a quality improvement initiative in neonatal resuscitation.	2016	Africa Hospital	Hc st	To explore and describe the existing situation in the specific district hospital in order to develop strategies to sustain the quality improvement initiative implemented in neonatal resuscitation for decreasing neonatal mortality.	PRAR	Cy SC	Piggot-Irvine E, 2009	Pl Act	consultation	Staff attitude changed towards neonatal resuscitation.	Improvements in the nurses' knowledge regarding neonatal resuscitation.	organizational
Van Biljon H <i>et al.</i>	An Action Research Approach to Profile an Occupational Therapy Vocational Rehabilitation Service in Public Healthcare.	2015	Africa Hc Serv	Hc st	To design, develop, refine, validate and disseminate a tool that occupational therapists working in public health care can use to profile their vocational rehabilitation services.	AR	Pt SC KB	Koshy, Kosy, Waterman, 2011; White-law <i>et al.</i> 2003; McNiff, 2010; McNiff, Whitehead, 2006; Zuber-Skerritt, 2009; Reason, Bradbury, 2008	Pl Ac Ref	consultation	Vocational rehabilitation tool was created.	Reflection on the tool.	organizational
Vanderzalm J <i>et al.</i>	Fostering Interprofessional Learning in a Rehabilitation Setting: Development of an Interprofessional Clinical Learning Unit.	2013	North Am hospital	Hc st	To enhance interprofessional (IP) clinical education and improve patient care in a rehabilitation setting.	CBPR	Pt	Shalowitz <i>et al.</i> , 2009	Pl Act	consultation	Creation of an IP Learning Environment, Enhanced IP Communication.	Increased Awareness of IP Practice, Role Clarification.	organizational
Vidal DAV <i>et al.</i>	Nursing process towards the prevention of falls in the institutionalized elderly: action research	2013	Latin Am Hc Serv	Hc st	To propose interaction between elements of nursing process in institutionalized elderly patients' records to prevent falls.	IA	Pt Cy KB SC	Thiollent, 2008; Grittem, Meier, Zagone; 2008	Pl Act Ref	compliance	Elements oriented to prevent falls were included in nursing process and in patients' records.	Knowledge about legislation of elderly rights.	organizational
Wagner LM <i>et al.</i>	Implementation of Mental Health Huddles on Dementia Care Units	2015	North America Hc Serv	Hc st	To support staff in discussing and managing client responsive behaviors in long-term care by using huddles.	PAR	Pt SC	Huijbregts <i>et al.</i> , 2012; Sidani, Epstein, 2003; Minkler, Wallerstein, 2008; Chapman, 2009; Sidani, Braden, 1998	Pl Act Obs Ref	collective action	Improved staff collaboration, teamwork, support, and communication when discussing specific responsive behaviors.	Not mentioned.	organizational
Walsgrove H, Fulbrook P	Advancing the clinical perspective: a practice development project to develop the nurse practitioner role in an acute hospital trust.	2005	Europe hospital	Hc st	To investigate awareness and foster understanding of the concept of the nurse practitioner and to facilitate and support the development of nurse practitioner roles within an acute hospital trust.	AR	Cy Pt SC KB	Meyer 2000, Gray 2004; Pope, Mays 2000; McNiff <i>et al.</i> 1996; Reason, Bradbury 2001; Manley, McCormack, 2003; Hart, Bond 1995; Denscombe 1998	Pl Act Obs	compliance	A Nurse Practitioner Development Group (NPDG) was established, which helped to facilitate the development of NP posts.	A better understanding of the concept and support for NP posts were enhanced across the trust.	organizational

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Wilks L, Boniface G	A study of occupational therapist's perceptions of clinical governance.	2004	Europe hospital	Hc st	To understand the perceptions of occupational therapists regarding clinical governance and continuing professional development (CPD) and implement changes.	AR	Pt SC Cy	Grundy, 1982; Carr, Kemmis, 1986; Robson, 1997; Greenwood, Levin, 1998; O'Brien, 1998; Hart, Bond, 1995; Pasmore, 2001	Pl Act Refl	co-operation	Prioritization of time for CPD.	Reflection about CPD.	organizational
Zeitz K <i>et al.</i>	Working together to improve the care of older people: a new framework for collaboration	2010	Australia hospital	Cycle	To identify the care issues experienced by older people in the acute setting that could be improved through a collaborative approach to action.	cooperative inquiry	Pt Cy SC KB	Reason, Heron 2008; Reason 2003, Tee <i>et al.</i> 2007	Pl Act	consultation	An emerging conceptual framework was constructed to base improvements to the basic elements of care.	Comprehension that traditional consumer engagement falls well short of participation and empowerment.	organizational

Act, Action; AR, Action research; CAR, Collaborative action research; CBPR, Community-based participatory research; CCAR, Community-based collaborative action research; CPPR, Community-partnered participatory research; Cy, Cycle of planning, action, observing, reflection; Cycle, Cycle of life populations; Hc Serv, Health-care service; Hc St, Health-care stakeholders; IA, Investigación acción; IAP, Investigación acción participatoria; KB, knowledge building; Latin Am, Latin America; North Am, North America; Obs, Observing; PA, Pesquisa ação; PAP, Pesquisa ação participante; PAR, Participatory action research; PHC, Primary health care; Pl, Planning; Pt, Participation; Ref, Reflection; SC/PS, Social change/problem solving.