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Voices from low-and-middle-income countries: a systematic review protocol of primary health care interventions within public health systems addressing intimate partner violence against women

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ABSTRACT

Introduction: Intimate partner violence (IPV) considerably harms the health, safety, and wellbeing of women. In response, public health systems around the globe have been gradually implementing strategies. In particular, low- and middle-income countries (LMIC) have been developing innovative interventions in primary health care (PHC) addressing the problem. This paper describes a protocol for a systematic review of studies addressing the impacts/outcomes of PHC centre interventions addressing IPV against women from LMIC.

Methods and analysis: A systematic search for studies will be conducted in African Index Medicus, Africa Portal Digital Library, CINAHL, Embase, Index Medicus for the South-East Asia Region, IndMed, LILACS, Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, SciELO, and Social Policy and Practice. Studies will be in English, Spanish, and Portuguese, published between 2007 and 2017, addressing IPV against women from LMIC, whose data quantitatively report on the impacts/outcomes for survivors and/or workers and/or public health systems pre- and post-intervention. Two trilingual reviewers will independently screen for study eligibility and data extraction, and a librarian will cross check for compliance. Risk of bias and quality assessment of studies will be measured according to: (1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials; and (2) the methodological index for non-randomised studies (MINORS). Data will be analysed and summarised using meta-analysis and narrative description of the evidence across studies. This systematic review will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) guidelines.

Ethics and dissemination: This systematic review will be based on published studies, thus not requiring ethical approval. Findings will be presented in conferences and published in a peer-reviewed journal.

Trial registration number: International Prospective Register for Systematic Reviews (PROSPERO) number CRD42017069261

Strengths and limitations of this study

- The comprehensive search strategy of this systematic review will allow identification of a range of interventions from different LMIC published in peer-reviewed journals in English, Spanish and Portuguese.

- This protocol is co-authored by researchers from LMIC, who are native-speakers of the languages included in this systematic review. This can strengthen the review process given linguistic and cultural aspects of the diverse studies will be recognised.

- The review intends to promote voices from LMIC, who otherwise may go unheard, given relative financial barriers of LMIC research institutions and the publication bias to English.

- It is expected that there will be some variability related to methodological diversity and outcomes of the reviewed studies, due to the broad scope of PHC interventions addressing IPV, making it challenging to compare outcomes across different scenarios.

INTRODUCTION

Intimate partner violence (IPV) is the most prevalent type of violence against women. The World Health Organization (WHO) estimates that one in three women experience physical or sexual IPV during their lifetime[1]. IPV against women is defined by the WHO as any behaviour within an intimate relationship that causes physical damage, psychological or sexual abuse to a woman in the

relationship, including physical assault, psychological abuse, forced intercourse, and other forms of sexual coercion and of controlling behaviours[2].

The consequences of IPV for women´s health have been extensively described, demonstrating that abused women have poorer health compared to women who have never been abused[3 4]. There are a wide range of impacts, including: a) physical health, such as injuries, traumas, cardiovascular effects[5]; b) mental health, including depression, anxiety, post-traumatic stress disorder (PTSD), alcohol and drug abuse and suicide[6]; c) sexual and reproductive health, including sexually transmitted diseases (STD), miscarriage, reduced contraception and sexual autonomy[7]. The impacts are not only for women, but also for their children, including increased risk for low birth weight, preterm delivery, and neonatal death[7].

IPV against women is a common problem all over the world, but multicountry studies reveal higher prevalence and the worst consequences for women from low-and-middle-income countries (LMIC)[3]. The World Bank classifies all countries by income, based on the gross national income (GNI) per capita[8]. It consists of four categories: 1) low-income (with a GNI per capita ≤US$1,025 in 2015); 2) lower middle-income (GNI per capita between US$1,026 and US$4,035); 3) upper middle-income (GNI per capita between US$4,036 and US$12,475); and 4) high-income countries (GNI per capita US$12,476). This classification is based on the gross national income (GNI) per capita of nations as of March, 2017. For the purpose of this review, we will include all categories, except the high-income, which is outside the scope of LMIC.

IPV has been recognized as a public health issue and included in the agendas of public health systems worldwide. The WHO Sustainable Development Goal number 5 aims to achieve gender equality and empower all women and girls. It includes two subitems targeting violence specifically: 5.1 ‘End all forms of discrimination against all women and girls everywhere’; and 5.2 ‘Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation’[9]. The World Health Assembly in 2016 recommended actions[10] under four strategic directions: 1) strengthening health system leadership and governance; 2) strengthening health service delivery and health workers'/providers' capacity to respond to violence, in particular against women and against children; 3) strengthen programming to prevent interpersonal violence, in particular against women and girls and against children; and 4) improve information and evidence. Each country responds differently to the problem in the health arena, and exchanging experiences can be a significant opportunity to foster local debate and action[11]. This systematic review focuses on experiences conducted within public health systems, and more specifically, in primary health care setting.

Primary health care (PHC) can be considered both a philosophy and a system response to reducing health inequities and ameliorating the effects of disadvantage[12]. PHC is the first level of contact individuals, families and communities have with the healthcare system. Ever since its definition was drawn up in 1978 by the WHO in the Alma-Ata deceleration,[13] there has been much debate about the scope of PHC. In this study, we adopt a more recent definition of PHC, consisting of ‘a socially appropriate, universally accessible, scientifically sound first level care provided by health services and systems with a suitably trained workforce comprised of multidisciplinary teams supported by integrated referral systems in a way that: gives priority to those most in need and addresses health inequalities; maximises community and individual self-reliance, participation and control; and involves collaboration and partnership with other sectors to promote public health’[14].

Globally, numerous LMIC are developing innovative interventions addressing IPV against women with a focus on PHC[15]. However, some of these interventions often go unnoticed by mainstream researchers from high-income countries. This can be related to different factors, such as: 1) the high costs for the development of complex interventions considered the gold standard of research (e.g.: randomised controlled trials); 2) high publication costs in prestigious academic journals, accompanied by high standards which are difficult to achieve by LMIC researchers given scarce resources, and; 3) linguistic barriers, as writing papers in English—the dominant language for publication in prestigious journals of high income countries—can be very expensive for non-English speaking researchers. However, such interventions developed in LMIC are not necessarily low quality studies. Indeed, they

can be scalable and generalisable, affording insights for public health systems in other contexts, including both high-income countries and LMIC.

While previous reviews have been published in this area, they are either not systematic reviews[16 17], or if systematic, did not focus solely on LMIC[18], or if focusing on LMIC, did not make reference to PHC[19]. Moreover, none of the extant systematic reviews include studies in Spanish or Portuguese, nor searched regional databases for literature. Thus, this will be the first systematic review addressing IPV interventions in PHC from LMIC to include studies in English, Spanish, and Portuguese, retrieved from, amongst others, regional databases.

REVIEW QUESTIONS

1) Do primary health care interventions within public health systems improve the health, safety and wellbeing of women survivors of IPV in LMIC?
2) What are the main impacts/outcomes of these interventions for PHC workers and their sustainability for public health systems?

OBJECTIVES

To conduct a systematic review of quantitative studies focusing on pre-and-post primary health care interventions conducted in LMIC, whose aim is the prevention/reduction of IPV and the improvement of survivors' health, safety and wellbeing.

METHODS

This systematic review will be conducted and reported according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P)[20 21], which includes the use of the PRISMA-P checklist (see appendix 1), following methodological approaches published in previous studies[22]. The review will be published according to the recommended items for systematic reviews based on the PRISMA statement[22]. This review will also be informed by the guidelines of the Cochrane Handbook[23] for systematic reviews of interventions to reinforce rigour along the process.

Study registration

This systematic review is registered in the PROSPERO International Prospective Register of Systematic Reviews with number CRD42017069261. (http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42017069261)

Types of studies

In this review we will include studies with quantitative pre-and-post evaluation concerning PHC interventions of IPV against women from LMIC developed within their respective public health systems. For the purposes of this review, we will consider interventions as proposed by Blankenship[24], consisting on actions generally taken by outsiders (often read experts), but including individuals and collectives who take actions on their own behalf, purposefully to address a particular risk or disease. This can include individual interventions (focused on individuals' knowledge, attitudes and behaviors) or structural interventions (aiming to change structural factors, such as economic, politico-legal, physical, and social environment). The interventions can include the following experimental approaches: randomised controlled trial, non-randomised controlled trial, quasi-experimental, and pre-post design. We will not include observational studies, qualitative methodologies, or prevalence studies.

We license the inclusion of a broad type of interventions by acknowledging the relatively poor funding allotted to research in LMIC. While cognisant that RCTs, for example, are the gold standard in research, and further, that the Cochrane Collaboration largely recommends methodologically-randomised studies to be the focus of review, we argue that filtering solely for such studies would miss many interventions employed in LMIC - the economic capital in LMIC simply does not allow for it. Given our aim is to "hear voices for the LMIC," and encouraged by the Cochrane's recognition that non-RCTs may be more appropriate at times[23], our approach is expansive.

Types of participants and settings

We recognise that the definition of PHC can be considered both a utopia and an aim. For the purpose of this review, we will include any healthcare facility considered as a Primary Healthcare Centre, but restricted to public health services from LMIC. The WHO[25] defines Primary Healthcare Centres as centres providing services which are usually the first point of contact with a health professional. They include services provided by general practitioners, dentists, community nurses, pharmacists and midwives, among others. It can include, for example, General Practice Clinics, Community Based Units, Basic Health Units, Family Health Strategy, Primary Care Home Visits, Day Care Centres, Multicentre Health Clinics and One Stop Crisis Center. This review will not include studies of interventions conducted outside of PHC centres and from the public health systems, such as media campaigns, interventions in schools or in hospitals, which are considered tertiary level of care.

Interventions in PHC for IPV usually focus on workers' strategies to improve survivors' health. This can include healthcare professionals, paraprofessionals, managers and other workers, like receptionists, for example. By 'survivors'[10] we mean any women older than 16 years-old affected by IPV and part of the population of an intervention of PHC centres from low- and middle-income countries.

Intervention(s), exposure

The types of interventions will include: studies about implementation of public policies to reduce/prevent IPV targeting PHC centres; education/training of PHC workers to manage IPV survivors; screening or case-finding IPV in PHC settings; strategies for organizational changes in PHC centres aiming to improve survivors' health, safety or wellbeing; therapeutic interventions for IPV focused in PHC centres.

Comparator(s)/control

Studies with all types of control conditions will also be included in this review, including no treatment group, treatment as usual, or comparison. We will not limit our review only to studies that compare active interventions with a control condition.

Types of outcomes measures

Primary outcomes

Primary outcomes will include the impacts/outcomes of the intervention for:
a) IPV, measured by validated instruments (such as the Composite Abuse Scale[26], Index of Spouse Abuse[27], etc.) or self-reported IPV (even if adopting unvalidated scale).
b) women´s perceived and diagnosed physical, psychological or sexual health and wellbeing, using validated instruments for each domain (such as General Health Questionnaire[28], Center for Epidemiologic Studies Depression Scale - CESD[29] - Post Traumatic Stress Disorder Checklist[30], the

Short-Form Health Survey - SF-36[31], etc.).
c) women´s safety, adopting validated or unvalidated measures (such as safety plans, danger assessment[32], etc.).
d) PHC workers, including (i.) identification of abuse by workers; (ii.) information-giving or safety planning and (iii) referral to other services within the public health system (such as hospitals, emergency settings, etc.) (iv.) referral to other services beyond the public health (such as family violence support agencies, police, justice, housing, etc.);

Other outcomes (secondary outcomes)

Secondary outcomes will include the impacts/outcomes of the intervention for:
a) children, considering intimate partner abuse also affects children, assessments through validated instruments regarding children´s health and wellbeing will also be reviewed (such as Child Health Questionnaire – CHQ[33], etc.).
b) public health systems, considering: (i.) policies about system and worker responses, (ii.) training programs in place, (iii.) routine data collection, (iv.) guidelines for workers, (v.) funding allocation and cost/benefit measures, and (vi.) sustainability, considering for this analysis only follow-up evaluations conducted no less than 12 months after the conclusion of the intervention.

Search strategy

A systematic search will be conducted for literature published between 1 January 2007 and 31 July 2017. We choose this time range given the first multi-country study addressing our question in the context of LMIC was published in 2006[3].

The following databases will be searched: African Index Medicus, Africa Portal Digital Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, Index Medicus for the South-East Asia Region, IndMed, Latin American and Caribbean Health Science Information Database (LILACS), Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, Scientific Electronic Library Online (SciELO), Social Policy and Practice.

This review considers studies published in English, Spanish, and Portuguese, given these are the official languages of 69 of the 145 LMIC (World Bank). Earlier systematic reviews[19] concerning interventions to IPV in LMIC did not consider articles in languages other than English. This review team consists of authors native in the three languages included, minimizing bias related to language. Accordingly, keywords and MeSH will be translated from English by author 1 and reviewed by authors 3 (to Portuguese) and 4 (to Spanish).

Authors 1 and 2 independently considered keywords and MeSH headings. Any discrepancies were subjected to justification. The general search strategy is shown in appendix 2, and will be adapted and modified appropriately according to each database.

Data collection and analysis

Eligibility criteria of the studies:

The inclusion criteria will be:

1. Studies from the eligible bibliographic databases with selected (combination of) terms and keywords (appendix 2), published in English, Spanish or Portuguese, between 2007 and 2017.
2. Interventions addressed to IPV conducted in PHC centres within the public health systems from LMIC.
3. Quantitative pre-and-post studies assessing the impacts/outcomes for survivors and/or workers and/or public health systems.
4. Primary data collection or existing data set analysis.

The exclusion criteria will be:

1. Studies published in languages other than English, Spanish or Portuguese.
2. Interventions from non-LMIC or not-conducted in PHC centres or conducted only in the private health system.
3. Studies that did not quantitatively assess pre-and-post interventions or that did not describe the impacts/outcomes for survivors, workers or public health systems.
4. Studies not related to interventions for IPV against women (for example, studies that focus only in children abuse or studies that focus only in risk factors for IPV or association factors between clinical manifestations and IPV).
5. Grey literature, including any study protocols, theses, case reports, letters, opinions, editorials, weekly reports, policy documents, congress abstracts, theoretical papers, observational studies, qualitative studies or reviews.
6. Studies published in 2006 or earlier or with the full text not available in the eligible databases.
7. Duplicate studies that have used the same study population or data. In this case, it will be used only the most recent or relevant publication, for researches published in more than one journal.

Data management of the studies

COVIDENCE (www.covidence.org) will be employed to manage retrieved studies and to conduct the systematic review process. The bibliographic software platform Endnote (online version www.myendnoteweb.com) will also be used to manage and store relevant studies for this review. These softwares will remove duplicates thereby cleaning the sample. A checklist will be developed based on the eligibility criteria of this review. The flow diagram showing the main steps of this systematic review is available on Appendix 3, following the PRISMA statement[20 21].

Data selection of the studies

The first step consists of the screening of potential studies. This will be done independently and blinded by two investigators fluent in the three languages included in this review (Authors 1 and 3). They will analyse titles and abstracts, considering also full texts of all non-duplicate papers from the electronic search, assessing their eligibility. This process was previously described[34] for rigorous systematic reviews, considering it can be necessary to read and evaluate the studies in this initial step. Additionally, some papers may not describe precisely their abstracts, so this manual and detailed search is proposed to maximise the inclusion of studies. Following Ayala-Quintanilla and colleagues[34], if there is uncertainty about the inclusion of a certain study in this step, that study will be temporarily included and will proceed to the next step for more evaluation. Considering all the selected databases provide an English version of their titles and abstracts, a librarian (Author 2) will cross-check this first step, comparing the independent results obtained from each investigator and ensuring that all steps were conducted in compliance with the protocol. If there is any uncertainty between the resultant studies, the librarian will seek for an opinion from one of the advisors (Authors 5 and 6) that compose this review team.

The second step consists of examining the full version of all selected studies from the first step, concerning the selection criteria. Two investigators will analyse independently all the articles for each language. The librarian will double check it this process.

The final list of selected studies will be reviewed independently. For each exclusion, justification will be documented. The results will be compared by the librarian, and any disagreements will be discussed and if necessary, consultation with a third author will occur to reach the consensus.

Appraisal/assessment of the risk of bias of the included studies

It is expected that eligible studies will vary according to their methodological approach. There is a vast range of tools to assess the quality and bias of studies. Nevertheless, evaluating such biases and qualities is a challenging task and there is no consensus to conduct it.

Grading of Recommendations, Assessment, Development and Evaluation (GRADE)[35] and the EQUATOR (Enhancing the Quality and Transparency of health Research) Network[36] provide support with guidelines and tools to evaluate the studies, rating up according to the level of evidence.

In this review, to minimize the risk of bias and evaluate the quality of evidence of each article included, we will adopt: 1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials[37]; 2) the Methodological index for non-randomised studies (MINORS)[38] to assess non-randomised interventional studies. This process will be independently performed by different authors (two authors for articles written in English, two for studies written in Portuguese, and two for articles in Spanish) and any disagreement will be discussed and resolved by a third author, if needed.

Data extraction

For this third step, three investigators (Authors 1, 3 and 4) will independently and blindly extract all data items (see appendix 4) of each included study with a standardised data collection form. The first author will extract data from studies in English and Portuguese. The third author will extract data from studies in Portuguese and Spanish, while the fourth author will collect from Spanish and English. All extracted data will be converted into English by authors for articles in Spanish or Portuguese, to allow the analysis by all authors in a common language for all. To guarantee that no errors will be made, the librarian (Author 2) will randomly cross-check these data. Any disagreements will be resolved by consensus between the two authors collecting each language and a third author (Author 5 or 6) can be arbitrator if consensus is not reached, following other systematic review protocols[34].

Data items

The descriptive items that will be collected are (see appendix 4): (1) general information and characteristics of the study, including the country/place, type of service where it was conducted, target participants and their main sociodemographic characteristics; (2) methodological characteristics, including the type of method and how data/information were collected, components that were analysed/; (3) impacts/outcomes for survivors, including IPV rates, women's health, safety and wellbeing and also impacts for their children; (4) impacts/outcomes for PHC workers, including types of workers, their roles and concerning measures; (5) impacts/outcomes for the public health systems, including measures of articulation with other levels of care (for example, hospitals, emergency units, intensive care units, etc) and other sectors beyond the public health (for example, housing, financing, police, justice, social services, etc), and also evaluation of costs and sustainability of the intervention. For items 3, 4 and 5, we will also collect information about barriers and facilitators for each of the three components (survivors, workers and systems), if available.

Data synthesis and analysis

Data extracted will be analysed and summarised aiming to answer the research questions. Data will be summarised according to the outcomes: 1) for survivors, including their health, safety and wellbeing as well as impacts on IPV rates; 2) for PHC workers considering their role to improve survivors' health care, and 3) for public health systems, including evaluation of costs and sustainability.

When appropriate, a meta-analysis can be conducted, if a sufficient number of trials are identified with sufficient homogeneity. The meta-analysis will be conducted with aggregate data, rather than at the individual participant level. Continuous and categorical variables will be summarised according to

the presentation of data of each study. Dichotomous outcome data (yes/no experience of IPV) will be described as risk ratios with their 95% confidence intervals. It will also be indicated if those findings were adjusted for confounders. It is anticipated that there will be some variability of reporting impacts/outcomes of interventions across studies. In this case, a narrative description of the available evidence will be conducted instead. This will consider which results are significant and their association with the outcomes, based on data availability across studies.
This review will present the results reported in the original studies which implies that we will not reanalyse or recalculate the data if a study does not report appropriate results. However, as indicated previously, we will calculate data, where possible, using the original information from the study such as for IPV or women´s health, safety and wellbeing. In addition, quantitative data from figures can be utilised if there is sufficient information reported/explained in the study. Additional data analysis can be made in order to assess the comparisons between studies, if possible.

For duplicate studies that have used the same study population or data, the most recent or relevant publication will be utilised for studies published in more than one journal, if possible the data will be linked together.
In summary, data analysis will be performed according to the data availability of eligible studies, and statistical expertise will be consulted as needed. The software STATA (version 15) will be utilised for all the quantitative analyses.

Cochrane's recommendations for reviews in public health

This review will follow some of the Cochrane guidelines for reviews conducted in public health and health promotion scenarios. One of the key points is sustainability, referred by The Cochrane Collaboration Group[23] as an important aspect to be included in systematic reviews in public health contexts, because it is likely to increase the concern of policymakers, practitioners and funders. When sustainability was measured in eligible studies we will look for additional explanations about which outcomes were measured over what period. However, if it was not measured, but authors explore the potential for sustainability it will also be summarised.

Another Cochrane[23] recommendation for systematic reviews in public health is the consideration of applicability and transferability. Applicability refers to how the findings of a given study or review can be translated into specific population or settings. Transferability is also referred as the potential for this translation occurs. If the reviewed studies mention these aspects, they will also be included in the analysis.

Economic evidences

Cochrane[23] recommends the review of economic evidences, because it provides additional information for decision makers, considering not only if a strategy or intervention works, but also whether its adoption will improve the use of resources. The economic issues are not the main objective of this review, therefore, it will not be an inclusion or exclusion criteria, but will compose an additional source of information when mentioned in the studies. We believe this information will be particularly important for LMIC and summary will be presented when described in eligible studies.

PRESENTING AND REPORTING THE RESULTS

The process of selection of eligible studies for the systematic review will follow the flow diagram according to guidelines of the PRISMA-P (appendix 1). The main steps of the review will include: the identification of studies, screening, evaluation according to inclusion/exclusion criteria and analysis of eligible studies. Results will be presented according to the outcomes: for survivors; for PHC workers; and for public health systems. Data will be summarized in tables depending on data from each study, but presenting first author's name, country, year of publication, study design, aims and main

outcomes.

POTENTIAL AMENDMENTS

This protocol is designed to guide with rigour all the steps of this systematic review. Amendments are not expected, but if necessary, just in case of any unexpected event, they will be reported in a detailed and consistent way, followed by appropriate justification. The same will be applied to any differences between the protocol and the review. In case of differences, they will be fully described in a specific section of the final review, providing rationale for them.

CONCLUSION AND IMPLICATIONS

Intimate partner violence is one of the main public health problems for women's health, safety and wellbeing. It requires effective and sustainable actions to reduce harm and life-threatening, targeting comprehensive interventions, particularly in primary health care settings in low-and-middle income contexts. This challenge is more severe in developing countries and exchanging effective interventions can be a coordinated way to foster debate and action. This review will systematise the knowledge previously produced, identifying research gaps and opportunities on interventions conducted in LMIC.

IPV is a potentially preventable issue, but its complexity requires the articulation of different sectors (including health systems, education, justice, among others), in different levels (highlighting the key potential role of the primary care level, but connecting to other levels), with collaboration of different actors (such as health professionals, managers, police, etc.) and with different targets (survivors, perpetrators, families, communities, etc.).

Facing this complex scenario, it is significant to recognize the limitations of this review, such as the types of studies included, that do not include all possible methodological approaches conducted in LMIC. Another limitation is the possible diversity of interventions, that can be challenging to be compared and systematised. It could be possible that other relevant studies will be excluded, since this review includes only studies published in English, Portuguese and Spanish. It is important to mention that the findings of this systematic review will be cautiously interpreted and the conclusions will be presented with parsimony, considering such limitations. This review will only focus in a 'tip of the iceberg', but it can raise questions for future studies with focus, for example, in other levels of care or in other sectors rather than the public health or even including other methodological approaches, such as qualitative studies, which have been extensively reported in LMIC.

ETHICS AND DISSEMINATION

Ethical issues

This systematic review is based on studies previously published and does not include collection of new primary data. Consequently, it is not necessary to obtain ethical evaluation.

Publication Plan

This review will be publicized in conferences (preliminary results) and the final article will be published in a peer-reviewed journal. We intend to publish both the protocol and the systematic review in open access journals, aiming to be accessible to investigators currently engaged in interventions in low-and-middle-income countries. This review affords a voice to researchers in the field of IPV who would otherwise go unheard, and provide greater insights into the range of possible interventions for nations facing comparable issues. It is expected that the final publication can support public systems and policies worldwide.

Author's contributions

MS conceived the review. SH, BQ and AT assisted on the design of the study protocol. MS and SH drafted the protocol paper and all authors edited the subsequent versions. AT critically revised the methodology. All authors have reviewed and approved the final version of the text.

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Appendix 1 - PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item	Page number
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not an update
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	PROSPERO CRD42017069261
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	10
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	11
Sponsor	5b	Provide name for the review funder and/or sponsor	11
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	11
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	3,4
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	4, 5, 6, 7
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	6
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Detailed on Appendix 2
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	7

Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	7
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	8
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	8 and Appendix 4
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	5, 6
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	7, 8
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	8,9
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	8, 9
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8, 9
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	8

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

Appendix 2 - General Search Strategy

1. ('primary health care*' or 'primary care*' or 'primary health*' or 'primary health care interven*' or 'health* manag*' or 'care manag*' or 'primary health interven*' or 'prevent* program*' or 'prevent* interven*' or 'early interven*' or 'primary health*' or strateg* or 'health promot*' or 'comprehensive health*' or 'community health*' or 'famil* health*' or 'public health*' or 'health* system*' or 'health* worker*' or 'health* profession*' or 'health* polic*' or 'antenatal car*' or 'antenatal clinic*' or 'basic health*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

2. Primary Health Care/ or Public Health/ or Health Policy/ or Health Promotion/ or Health Personnel/ or Developing Countries/

3. 1 {or/and} 2

4. ('partner violen*' or 'partner abus*' or 'spouse violen*' or 'spouse abus*' or 'partner harm*' or 'violen* against wom*' or 'battered women' or 'dating violen*' or 'dating abus*' or 'gender based violen*' or 'gender based abus*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms

5. Intimate Partner Violence/ or Battered Women/

6. 4 {or/and} 5

7. (‘low* middle* incom* countr*’ OR ‘low* incom* countr*’ OR ‘middle* incom* countr*’ OR ‘underdevelop* countr*’ OR ‘developing countr*’ OR ‘third* world countr*’ OR ‘low* middle* income* nation*’ OR ‘third*world* nation*’ OR ‘underdevelop* nation*’ OR ‘less* developed nation*’ OR ‘low* income nation*’ OR ‘developing nation*’ OR ‘least* developed countr*’ OR ‘emerg* countr*’ OR ‘less-developed countr*’ OR ‘developing world*’ OR ‘undeveloped world*’ OR ‘emerg* world’ OR ‘Latin* America*’ OR ‘Central* America*’ OR ‘Caribbean’ OR ‘South* America*’ OR ‘Africa*’ OR ‘Asia*’ OR ‘Pacific’ OR ‘Middle* East*’ OR ‘Latin* America*’ OR ‘Central America*’ OR ‘South America*’ OR ‘Africa*’ OR ‘Asia*’ OR ‘Pacific*’ OR ‘Middle East*’ OR ‘Afghanistan’ OR ‘Albania’ OR ‘Algeria’ OR ‘American Samoa’ OR ‘Angola’ OR ‘Argentina’ OR ‘Armenia’ OR ‘Azerbaijan’ OR ‘Bangladesh’ OR ‘Belarus’ OR ‘Belize’ OR ‘Benin’ OR ‘Bhutan’ OR ‘Bolivia’ OR ‘Bosnia*Herzegovina’ OR ‘Botswana’ OR ‘Brazil’ OR ‘Bulgaria’ OR ‘Burkina Faso’ OR ‘Burundi’ OR ‘Cabo Verde’ OR ‘Cambodia’ OR ‘Cameroon’ OR ‘Central African Republic’ OR ‘Chad’ OR ‘China’ OR ‘Colombia’ OR ‘Comoros’ OR ‘Congo, Dem* Rep*’ OR ‘Congo, Rep*’ OR ‘Costa Rica’ OR ‘Cote d'Ivoire’ OR ‘Cuba’ OR ‘Djibouti’ OR ‘Dominica’ OR ‘Dominican Republic’ OR ‘Ecuador’ OR ‘Egypt’ OR ‘El Salvador’ OR ‘Equatorial Guinea’ OR ‘Eritrea’ OR ‘Ethiopia’ OR ‘Fiji’ OR ‘Gabon’ OR ‘Gambia’ OR ‘Georgia’ OR ‘Ghana’ OR ‘Grenada’ OR ‘Guatemala’ OR ‘Guinea’ OR ‘Guinea-Bissau’ OR ‘Guyana’ OR ‘Haiti’ OR ‘Honduras’ OR ‘India’ OR ‘Indonesia’ OR ‘Iran’ OR ‘Iraq’ OR ‘Jamaica’ OR ‘Jordan’ OR ‘Kazakhstan’ OR ‘Kenya’ OR ‘Kiribati’ OR ‘Korea, Dem* People's Rep*’ OR ‘North Korea’ OR ‘Kosovo’ OR ‘Kyrgyz’ OR ‘Lao’ OR ‘Lebanon’ OR ‘Lesotho’ OR ‘Liberia’ OR ‘Libya’ OR ‘Macedonia’ OR ‘Madagascar’ OR ‘Malawi’ OR ‘Malaysia’ OR ‘Maldives’ OR ‘Mali’ OR ‘Marshall Islands’ OR ‘Mauritania’ OR ‘Mauritius’ OR Mexico’ OR ‘Micronesia’ OR ‘Moldova’ OR ‘Mongolia’ OR ‘Montenegro’ OR ‘Morocco’ OR ‘Mozambique’ OR ‘Myanmar’ OR ‘Namibia’ OR ‘Nepal’ OR ‘Nicaragua’ OR Niger’ OR ‘Nigeria’ OR ‘Pakistan’ OR ‘Palau’ OR ‘Palestine’ OR ‘Panama’ OR ‘Papua New Guinea’ OR ‘Paraguay’ OR ‘Peru’ OR ‘Philippines’ OR ‘Romania’ OR ‘Russian Federation’ OR ‘Russia’ OR ‘Rwanda’ OR ‘Samoa’ OR ‘Sao Tome and Principe’ OR ‘Senegal’ OR ‘Serbia’ OR ‘Sierra Leone’ OR ‘Solomon Islands’OR ‘Somalia’ OR ‘South Africa’ OR ‘South Sudan’ OR ‘Sri Lanka’ OR ‘St. Lucia’ OR ‘St. Vincent and the Grenadines’ OR ‘Sudan’ OR ‘Suriname’ OR ‘Swaziland’ OR ‘Syrian Arab Republic’ OR ‘Syria’ OR ‘Tajikistan’ OR ‘Tanzania’OR ‘Thailand’ OR ‘Timor-Leste’ OR ‘East Timor’ OR ‘Togo’ OR ‘Tonga’ OR ‘Tunisia’ OR ‘Turkey’ OR ‘Turkmenistan’ OR ‘Tuvalu’ OR ‘Uganda’OR ‘Ukraine’ OR ‘Uzbekistan’ OR ‘Vanuatu’ OR ‘Venezuela’ OR ‘Vietnam’ OR ‘West Bank* Gaza’ OR ‘Yemen’ OR ‘Zambia’ OR ‘Zimbabwe’).mp. [mp=title, abstract, original title, name

of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

8. Developing countries/ OR Argentina/ OR Bolivia/ OR Brazil/ OR Colombia/ OR Ecuador/ OR Guyana/ OR Paraguay/ OR Peru/ OR Suriname/ OR Venezuela/ OR exp Latin America/ OR exp Caribbean Region/ OR exp Central America/ OR exp Africa/ OR esp Central Asia/ OR exp Northern Asia/ OR Cambodia/ OR Timor-Leste/ OR Indonesia/ OR Laos/ OR Malaysia/ OR Myanmar/ OR Philippines/ OR Thailand/ OR Vietnan/ OR Bangladesh/ OR Buthan/ OR exp India/ OR Nepal/ OR Pakistan/ OR Sri Lanka/ OR Afghanistan/ OR Iran/ OR Iraq/ OR Jordan/ OR Lebanon/ OR Syria/ OR Turkey/ OR Yemen/ OR exp China/ OR Mongolia/ OR Democratic People´s Republic of Korea/ OR Balkan Peninsula/ OR Albania/ OR Bosnia and Herzegovina/ OR Bulgaria/ OR Kosovo/ OR Macedonia/ OR Moldova/ OR Montenegro/ OR exp Republic of Belarus OR Romania/ OR exp Russia/ OR Serbia/ OR Ukraine/ OR exp Transcaucasia/ OR Comoros/ OR Madagascar/ OR Mauritius/ OR Indonesia/ OR Fiji/ OR Papua New Guinea/ OR Vanuatu/ OR Palau/ OR exp Samoa/ OR Tonga/ OR Cuba/ OR Dominica/ OR Dominican Republic/ OR Grenada/ OR Haiti/ OR Jamaica/ OR St. Lucia/ OR St. Vincent and the Grenadines/

9. 7 {or/and} 8

10. 3 and 6 and 9

11. Limit 10 to (full text and yr="2007 -Current" and (English or Portuguese or Spanish))

Search	Free text words - Portuguese (MeSH terms only available in English)
#1	“atenção primár* saúde” OR “cuidado* primár*” OR “saúde primár*” OR “gestão* saúde” OR “manej* saúde” OR “interven* saúde* primár*” OR “program* preven*” OR “interven* preven*” OR “interven* precoce*” OR “estratégi* saúde primár*” OR “promoç* d* saúde” OR “saúde integral*” OR “saúde* comuni*” OR “saúde* família*” OR “saúde públic*” OR “sistema* saúde*” OR “trabalhador* saúde” OR “agente* saúde” OR “profissiona* saúde” OR “polític* saúde” OR “cuidado* pré-nata*” OR “ambulatór* pré-nata*” OR “saúde básic*” OR “atenç* básic*” OR “centro* saúde” OR “posto* saúde” OR “unidade* saúde”
#2	“violen* parceir*” OR “abus* parceir*” OR “violen* conjug*” OR “abus* conjug*” OR “agress* parceir*” OR “violen* contra* mulher*” OR “mulher* espancada*” OR “violen* namor*” OR “abus* namor*” OR “violen* gênero” OR “abus* gênero”
#3	“país* renda baixa* média*” OR “país* baixa* média* renda*” OR “país* baixa* renda*” OR “país* renda* média” OR “país* subdesenvolv*” OR “país* em desenvolvimento” OR “país* terceiro mundo” OR “naç* renda baixa* média*” OR “naç* terceiro mundo” OR “naç* subdesenvolv*” OR “naç* menos desenvolvid*” OR “naç* baix* desenvolv*” OR “naç* em desenvolvimento” OR “país* menos desenvolvid*” OR “país* emergente*” OR “país* pobre*” OR “naç* pobre*” OR “mundo em desenvolvimento” OR “mundo subdesenvolvido” OR “mundo emergente” OR “naç* emergente* OR “América Latin*” OR "América Central" OR "América do Sul" OR “Carib*” OR "África*" OR "Ásia*" OR "Pacífico*" OR “Oceania” OR "Oriente Médio" OR "Afeganistão" OR "Albânia" OR "Argélia" OR "Samoa Americana" OR "Angola" OR "Argentina" OR "Armênia" OR "Azerbaijão" OR "Bangladesh" OR "Bielorrússia" OR "Belize" OR "Benin" OR "Butão" OR "Bolívia" OR "Bósnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgária" OR “Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Camboja" OR "Camarões" OR "República Centro-Africana" OR "Chade" OR "China" OR "Colômbia" OR "Comores" OR "Congo, Dem* Rep*" OR "Congo,

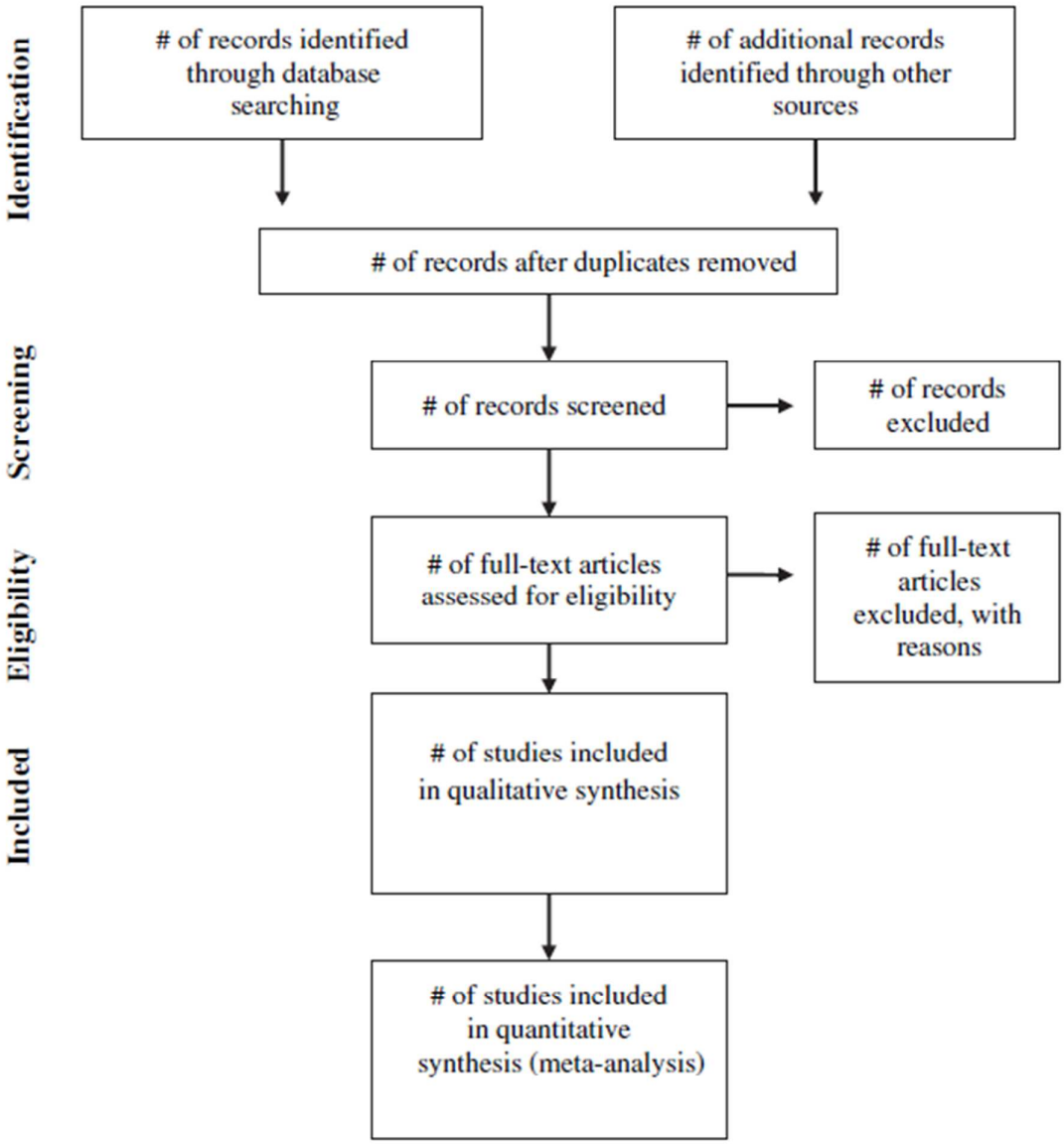
	Rep*" OR "Costa Rica" OR "Costa do Marfim" OR "Cuba" OR "DjiboutI" OR "Dominica" OR "República Dominicana" OR "Equador" OR "Egito" OR "El Salvador" OR "Guiné Equatorial" OR "Eritreia" OR "Etiópia" OR "Fiji" OR "Gabão" OR "Gâmbia" OR "Geórgia" OR "Gana" OR "Granada" OR "Guatemala" OR "Guiné" OR "Guiné-Bissau" OR "Guiana" OR "Haiti" OR "Honduras" OR "Índia" OR "Indonésia" OR "Irã" OR "Iraque" OR "Jamaica" OR "Jordânia" OR "Cazaquistão" OR "Quênia" OR "Kiribati" OR "Coréia, Rep* Dem*" OR "Coréia do Norte" OR "Kosovo" OR "Quirguistão" OR "Laos" OR "Líbano" OR "Lesoto" OR "Libéria" OR "Líbia" OR "Macedônia" OR "Madagascar" OR "Malawi" OR "Malásia" OR "Maldivas" OR "Mali" OR "Ilhas Marshall" OR "Mauritânia" OR "Maurící*" OR "México" OR "Micronésia" OR "Moldávia" OR "Mongólia" OR "Montenegro" OR "Marrocos" OR "Moçambique" OR "Mianmar" OR "Namíbia" OR "Nepal" OR "Nicarágua" OR Níger " OR "Nigéria" OR "Paquistão" OR "Palau" OR "Panamá" OR "Papua Nova Guiné" OR "Paraguai" OR "Peru" OR "Filipinas" OR "Romênia" OR "Federação Russa" OR "Rússia" OR "Ruanda" OR "Samoa" OR "São Tomé e Príncipe" OR "Senegal" OR "Sérvia" OR "Serra Leoa" OR "Ilhas Salomão" OR "Somália" OR"África do Sul" OR "Sudão do Sul" OR "Sri Lanka" OR "St. Lucia" OR "São. Vincente e Granadinas" OR "Sudão" OR "Suriname" OR "Suazilândia" OR "República Árabe da Síria" OR "Síria" OR "Tajiquistão" OR "Tanzânia" OR "Tailândia" OR "Timor-Leste" OR "Timor* Leste" OR "Togo" OR "Tonga" OR "Tunísia" OR "Turquia" OR "Turcomenistão" OR "Tuvalu" OR "Uganda" OR "Ucrânia" OR "Uzbequistão" OR "Vanuatu" OR "Venezuela" OR "Vietn*" OR "Cisjordânia" OR "Gaza" OR "Palestina" OR "Iêmen" OR "Zâmbia" OR "Zimbábue"

Search	Free text words - Spanish (MeSH terms only available in English)
#1	"atenci* primar* salud" OR "atenci* primar*" OR "cuidado* primar*" OR "salud primar*" OR "gestion* salud" OR "manej* salud" OR "interven* primar* salud*" OR "program* OR interven*" OR "interven* tempran*" OR "estrateg* salud primar*" OR "promoc* salud" OR "salud integral*" OR "salud* comuni*" OR "salud* famili*" OR "salud public*" OR "sistema* salud" OR "trabajad* salud" OR "agente* salud" OR "profession* salud" OR "politic* salud" OR "cuidado prenatal*" OR "clínica* prenatal*" OR "salud basic*" OR "atenci* basic*" OR "primer nivel de atención" OR "centro* de salud" OR "puesto* de salud" OR "posta* médica*"
#2	"violen* pareja*" OR "abuso* pareja*" OR "violencia conyug*" OR "abuso conyug*" OR "daño* pareja*" OR "violen* contra la* mujer*" OR "abus* contra la* mujer*" OR "mujer* golpeada*" OR "mujer* maltratada*" OR "violen* contra la* enamora*" OR "abus* contra la* enamora*" OR "violencia de género" OR "abuso de género" OR "violencia de* compañer* íntim*" OR "mujer* violentada*"
#3	"país* con ingreso mediano* bajo*" OR "país* con ingreso bajo* OR "país* subdesarrollado*" OR "país* en desarrollo*" OR "país* tercer mundo" OR "nacion* con ingreso mediano* bajo*" OR "nacion* del tercer mundo" OR "nacion* subdesarrollada*" OR "nacion* menos desarroll*" OR "nacion* con bajo desarroll*" OR "nacion* en desarrollo" OR "país* menos desaroll*" OR "país* menos desarroll*" OR "país* emergente*" OR "nacion* emergente*" OR "mundo emergente" OR "mundo subdesarrollado" OR" país* en vías de desarrollo" OR "Caribe" OR "América Latina*" OR "América del Sur" OR "Sudamérica" "África*" OR "Asia*" OR "Pacífico" OR "Oriente Medio" OR "Afganistán" OR "Albania" OR "Argelia" OR "Angola" OR "Argentina" OR "Samoa Americana" OR "Armenia" OR "Azerbaiyán" OR "Bangladesh" OR "Bielorrusia" OR "Belice" OR "Benin" OR "Bolivia" OR "Bosnia* Herzegovina" OR

	"Botswana" OR "Brasil" OR "Bulgaria" OR "Burkina Faso" OR "Burundi" OR "Bhutan" OR "Cabo Verde" OR "Camboya" OR "Camerún" OR "República Centroafricana" OR"Chad" OR "China" OR "Costa Rica" OR "Costa de Marfil" OR "Cuba" OR "Djibouti" OR "Dominica" OR "Costa Rica" OR "Colombia" OR "Comoras" OR "Congo, Rep*" OR "República Dominicana" OR "Ecuador" OR "Egipto" OR "El Salvador" OR "Guinea Ecuatorial" OR "Eritrea" OR "Etiopía" OR "Fiji" OR "Gabón" OR "Georgia" OR "Gambia" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guinea-Bissau" OR "Guyana" OR "Haití" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Irak" OR "Jamaica" OR "Jordania" OR "Kazajstán" OR "Kenia" OR "Kiribati" OR "Corea, República Democrática" OR "Corea del Norte" OR "Kosovo" OR "Laos" OR "Líbano" OR "Lesotho" OR "Liberia" OR "Libia" OR "Macedonia" OR "Madagascar" OR "Malawi" OR "Malasia" OR "Maldivas" OR "Mali" OR "Islas Marshall" OR "Mauritania" OR "Maurící*" OR "México" OR "Micronesia" OR "Moldavia" OR "Mongolia" OR "Montenegro" OR "Marruecos" OR "Mozambique" OR "Myanmar" OR "Namibia" OR "Nepal" OR "Nicaragua" OR "Níger" OR "Nigeria" OR "Pakistán" OR "Palau" OR "Panamá" OR "Papúa Nueva Guinea" OR "Paraguay" OR "Perú" OR "Filipinas" OR "Rumania" OR "Rusia" OR "Rwanda" OR "Samoa" OR "Santo Tomé y Príncipe" OR "Senegal" OR "Serbia" OR "Sierra Leona" OR "Somalia" OR "Sudáfrica" OR "Sudán del Sur" OR "Sri Lanka" OR "St. Lucia" OR "Siria" OR "Tayikistán" OR "Tanzania" OR "Tailandia" OR "Timor Oriental" OR "República Democrática del Congo" OR "Tonga" OR "Túnez" OR "Turquía" OR "Turkmenistán" OR "Tuvalu" OR "Uganda" OR "Ucrania" OR "Uzbekistán" OR "Vanuatu" OR "Venezuela" OR "Vietnam" OR "Cisjordania*" OR "Gaza" OR "Palestina" OR "Yemen" OR "Zambia" OR "Zimbabwe"

This search strategy can be adapted and modified according to each electronic database.

Appendix 3 -PRISMA Flow Diagram: flow of information through different phases of a systematic review



Source: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med 2009;6:e1000097 doi:10.1371/journal.pmed.1000097 [published Online: 21 July 2009].

Appendix 4 - Data Items

1. General Information and characteristics of the studies

a. Author´s name
b. Journal
c. Year of publication
d. Country of the intervention
e. Context (urban/rural)
f. Type of service/setting
g. Participants (e.g. workers, users - victims, family members, perpetrators)

2. Methodology

a. Study design
b. Type of intervention
c. Sample/number of participants
d. Year(s) when intervention was conducted
e. Data collection
f. Measures
g. Analysis
h. Ethics clearance

3. Impacts/outcomes of the intervention for survivors:

a. IPV rates
b. health (e.g. physical, mental)
c. safety (e.g. safety plans)
d. wellbeing (e.g. quality of life)
e. children (e.g. children´s health and wellbeing)
f. Other Impacts/outcomes (if described)
g. Barriers and facilitators for survivors (if investigated)

4. Impacts/outcomes of the intervention for PHC workers:

a. Types of workers (e.g. nurses, community health workers, receptionists)
b. Worker's' role in the intervention
c. Measures of impacts/outcomes concerned to workers
d. Barriers and facilitators for workers (if described)

5. Role of the PHC services and public health systems to improve survivors' healthcare:

a. Measures of impacts/outcomes of the intervention for services/systems
b. Impacts/outcomes of the intervention for policies and organizational structure
c. Articulation with other levels of care in the healthcare system (e.g. hospital, emergency, etc.)
d. Articulation with other sectors beyond public health (e.g. police, justice, housing, etc.)
e. Costs
f. Sustainability
g. Barriers and facilitators for services/systems (if described)

6. Other relevant information

Appendix 1 - PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item	Page number
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not an update
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	PROSPERO CRD42017069261
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	10
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	11
Sponsor	5b	Provide name for the review funder and/or sponsor	11
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	11
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	3,4
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	4, 5, 6, 7
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	6
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Detailed on Appendix 2
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	7

Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	7
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	8
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	8 and Appendix 4
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	5, 6
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	7, 8
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	8,9
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	8, 9
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8, 9
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	8

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

Appendix 2 - General Search Strategy

1. ('primary health care*' or 'primary care*' or 'primary health*' or 'primary health care interven*' or 'health* manag*' or 'care manag*' or 'primary health interven*' or 'prevent* program*' or 'prevent* interven*' or 'early interven*' or 'primary health*' or strateg* or 'health promot*' or 'comprehensive health*' or 'community health*' or 'famil* health*' or 'public health*' or 'health* system*' or 'health* worker*' or 'health* profession*' or 'health* polic*' or 'antenatal car*' or 'antenatal clinic*' or 'basic health*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

2. Primary Health Care/ or Public Health/ or Health Policy/ or Health Promotion/ or Health Personnel/ or Developing Countries/

3. 1 {or/and} 2

4. ('partner violen*' or 'partner abus*' or 'spouse violen*' or 'spouse abus*' or 'partner harm*' or 'violen* against wom*' or 'battered women' or 'dating violen*' or 'dating abus*' or 'gender based violen*' or 'gender based abus*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms

5. Intimate Partner Violence/ or Battered Women/

6. 4 {or/and} 5

7. ('low* middle* incom* countr*' OR 'low* incom* countr*' OR 'middle* incom* countr*' OR 'underdevelop* countr*' OR 'developing countr*' OR 'third* world countr*' OR 'low* middle* income* nation*' OR 'third*world* nation*' OR 'underdevelop* nation*' OR 'less* developed nation*' OR 'low* income nation*' OR 'developing nation*' OR 'least* developed countr*' OR 'emerg* countr*' OR 'less-developed countr*' OR 'developing world*' OR 'undeveloped world*' OR 'emerg* world' OR 'Latin* America*' OR 'Central* America*' OR 'Caribbean' OR 'South* America*' OR 'Africa*' OR 'Asia*' OR 'Pacific' OR 'Middle* East*' OR 'Latin* America*' OR 'Central America*' OR 'South America*' OR 'Africa*' OR 'Asia*' OR 'Pacific*' OR 'Middle East*' OR 'Afghanistan' OR 'Albania' OR 'Algeria' OR 'American Samoa' OR 'Angola' OR 'Argentina' OR 'Armenia' OR 'Azerbaijan' OR 'Bangladesh' OR 'Belarus' OR 'Belize' OR 'Benin' OR 'Bhutan' OR 'Bolivia' OR 'Bosnia*Herzegovina' OR 'Botswana' OR 'Brazil' OR 'Bulgaria' OR 'Burkina Faso' OR 'Burundi' OR 'Cabo Verde' OR 'Cambodia' OR 'Cameroon' OR 'Central African Republic' OR 'Chad' OR 'China' OR 'Colombia' OR 'Comoros' OR 'Congo, Dem* Rep*' OR 'Congo, Rep*' OR 'Costa Rica' OR 'Cote d'Ivoire' OR 'Cuba' OR 'Djibouti' OR 'Dominica' OR 'Dominican Republic' OR 'Ecuador' OR 'Egypt' OR 'El Salvador' OR 'Equatorial Guinea' OR 'Eritrea' OR 'Ethiopia' OR 'Fiji' OR 'Gabon' OR 'Gambia' OR 'Georgia' OR 'Ghana' OR 'Grenada' OR 'Guatemala' OR 'Guinea' OR 'Guinea-Bissau' OR 'Guyana' OR 'Haiti' OR 'Honduras' OR 'India' OR 'Indonesia' OR 'Iran' OR 'Iraq' OR 'Jamaica' OR 'Jordan' OR 'Kazakhstan' OR 'Kenya' OR 'Kiribati' OR 'Korea, Dem* People's Rep*' OR 'North Korea' OR 'Kosovo' OR 'Kyrgyz' OR 'Lao' OR 'Lebanon' OR 'Lesotho' OR 'Liberia' OR 'Libya' OR 'Macedonia' OR 'Madagascar' OR 'Malawi' OR 'Malaysia' OR 'Maldives' OR 'Mali' OR 'Marshall Islands' OR 'Mauritania' OR 'Mauritius' OR Mexico' OR 'Micronesia' OR 'Moldova' OR 'Mongolia' OR 'Montenegro' OR 'Morocco' OR 'Mozambique' OR 'Myanmar' OR 'Namibia' OR 'Nepal' OR 'Nicaragua' OR Niger' OR 'Nigeria' OR 'Pakistan' OR 'Palau' OR 'Palestine' OR 'Panama' OR 'Papua New Guinea' OR 'Paraguay' OR 'Peru' OR 'Philippines' OR 'Romania' OR 'Russian Federation' OR 'Russia' OR 'Rwanda' OR 'Samoa' OR 'Sao Tome and Principe' OR 'Senegal' OR 'Serbia' OR 'Sierra Leone' OR 'Solomon Islands'OR 'Somalia' OR 'South Africa' OR 'South Sudan' OR 'Sri Lanka' OR 'St. Lucia' OR 'St. Vincent and the Grenadines' OR 'Sudan' OR 'Suriname' OR 'Swaziland' OR 'Syrian Arab Republic' OR 'Syria' OR 'Tajikistan' OR 'Tanzania'OR 'Thailand' OR 'Timor-Leste' OR 'East Timor' OR 'Togo' OR 'Tonga' OR 'Tunisia' OR 'Turkey' OR 'Turkmenistan' OR 'Tuvalu' OR 'Uganda'OR 'Ukraine' OR 'Uzbekistan' OR 'Vanuatu' OR 'Venezuela' OR 'Vietnam' OR 'West Bank* Gaza' OR 'Yemen' OR 'Zambia' OR 'Zimbabwe').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word,

rare disease supplementary concept word, unique identifier, synonyms]

8. Developing countries/ OR Argentina/ OR Bolivia/ OR Brazil/ OR Colombia/ OR Ecuador/ OR Guyana/ OR Paraguay/ OR Peru/ OR Suriname/ OR Venezuela/ OR exp Latin America/ OR exp Caribbean Region/ OR exp Central America/ OR exp Africa/ OR esp Central Asia/ OR exp Northern Asia/ OR Cambodia/ OR Timor-Leste/ OR Indonesia/ OR Laos/ OR Malaysia/ OR Myanmar/ OR Philippines/ OR Thailand/ OR Vietnan/ OR Bangladesh/ OR Buthan/ OR exp India/ OR Nepal/ OR Pakistan/ OR Sri Lanka/ OR Afghanistan/ OR Iran/ OR Iraq/ OR Jordan/ OR Lebanon/ OR Syria/ OR Turkey/ OR Yemen/ OR exp China/ OR Mongolia/ OR Democratic People´s Republic of Korea/ OR Balkan Peninsula/ OR Albania/ OR Bosnia and Herzegovina/ OR Bulgaria/ OR Kosovo/ OR Macedonia/ OR Moldova/ OR Montenegro/ OR exp Republic of Belarus OR Romania/ OR exp Russia/ OR Serbia/ OR Ukraine/ OR exp Transcaucasia/ OR Comoros/ OR Madagascar/ OR Mauritius/ OR Indonesia/ OR Fiji/ OR Papua New Guinea/ OR Vanuatu/ OR Palau/ OR exp Samoa/ OR Tonga/ OR Cuba/ OR Dominica/ OR Dominican Republic/ OR Grenada/ OR Haiti/ OR Jamaica/ OR St. Lucia/ OR St. Vincent and the Grenadines/

9. 7 {or/and} 8

10. 3 and 6 and 9

11. Limit 10 to (full text and yr="2007 -Current" and (English or Portuguese or Spanish))

Search	Free text words - Portuguese (MeSH terms only available in English)
#1	“atenção primár* saúde” OR “cuidado* primár*” OR “saúde primár*” OR “gestão* saúde” OR “manej* saúde” OR “interven* saúde* primár*” OR “program* preven*” OR “interven* preven*” OR “interven* precoce*” OR “estratégi* saúde primár*” OR “promoç* d* saúde” OR “saúde integral*” OR “saúde* comuni*” OR “saúde* família*” OR “saúde públic*” OR “sistema* saúde*” OR “trabalhador* saúde” OR “agente* saúde” OR “profissiona* saúde” OR “polític* saúde” OR “cuidado* pré-nata*” OR “ambulatór* pré-nata*” OR “saúde básic*” OR “atenç* básic*” OR “centro* saúde” OR “posto* saúde” OR “unidade* saúde”
#2	“violen* parceir*” OR “abus* parceir*” OR “violen* conjug*” OR “abus* conjug*” OR “agress* parceir*” OR “violen* contra* mulher*” OR “mulher* espancada*” OR “violen* namor*” OR “abus* namor*” OR “violen* gênero” OR “abus* gênero”
#3	“país* renda baixa* média*” OR “país* baixa* média* renda*” OR “país* baixa* renda*” OR “país* renda* média” OR “país* subdesenvolv*” OR “país* em desenvolvimento” OR “país* terceiro mundo” OR “naç* renda baixa* média*” OR “naç* terceiro mundo” OR “naç* subdesenvolv*” OR “naç* menos desenvolvid*” OR “naç* baix* desenvolv*” OR “naç* em desenvolvimento” OR “país* menos desenvolvid*” OR “país* emergente*” OR “país* pobre*” OR “naç* pobre*” OR “mundo em desenvolvimento” OR “mundo subdesenvolvido” OR “mundo emergente” OR “naç* emergente* OR “América Latin*” OR "América Central" OR "América do Sul" OR “Carib*” OR "África*" OR "Ásia*" OR "Pacífico*" OR “Oceania” OR "Oriente Médio" OR "Afeganistão" OR "Albânia" OR "Argélia" OR "Samoa Americana" OR "Angola" OR "Argentina" OR "Armênia" OR "Azerbaijão" OR "Bangladesh" OR "Bielorrússia" OR "Belize" OR "Benin" OR "Butão" OR "Bolívia" OR "Bósnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgária" OR “Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Camboja" OR "Camarões" OR "República Centro-Africana" OR "Chade" OR "China" OR "Colômbia" OR "Comores" OR "Congo, Dem* Rep*" OR "Congo, Rep*" OR "Costa Rica" OR "Costa do Marfim" OR "Cuba" OR "DjiboutI" OR

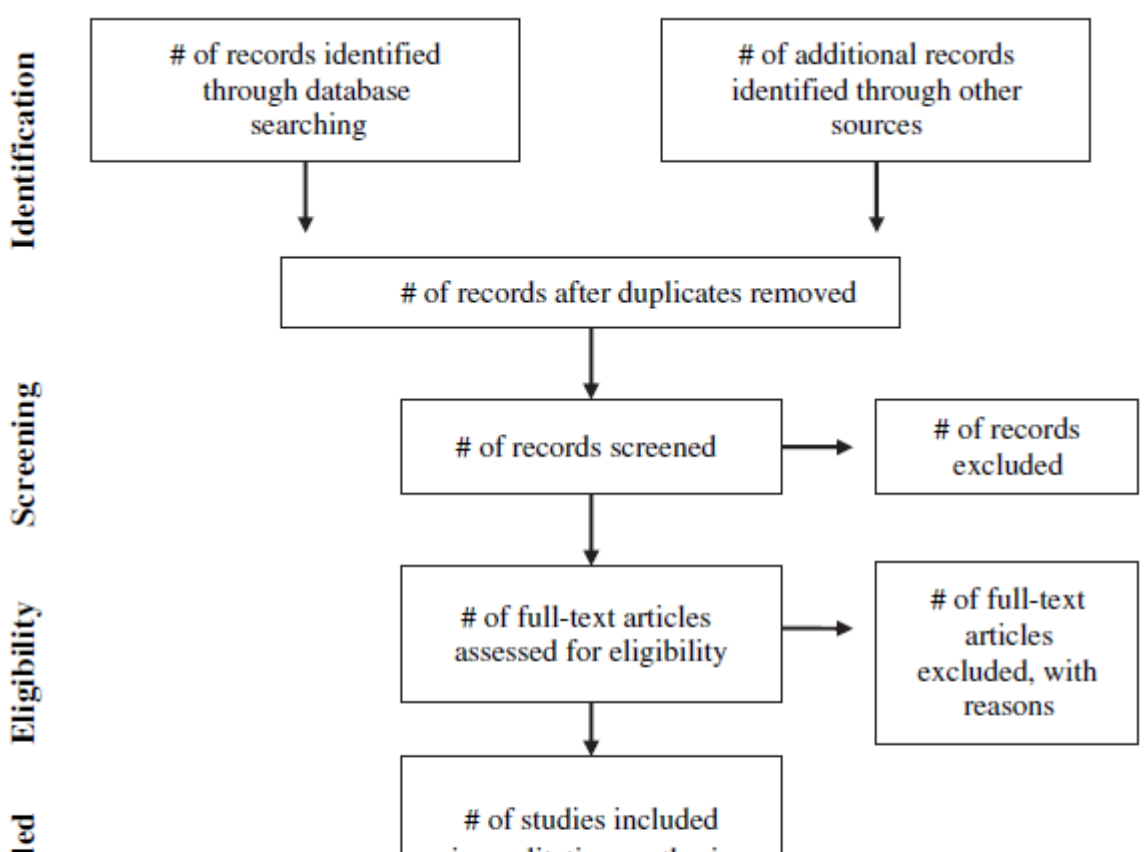
	"Dominica" OR "República Dominicana" OR "Equador" OR "Egito" OR "El Salvador" OR "Guiné Equatorial" OR "Eritreia" OR "Etiópia" OR "Fiji" OR "Gabão" OR "Gâmbia" OR "Geórgia" OR "Gana" OR "Granada" OR "Guatemala" OR "Guiné" OR "Guiné-Bissau" OR "Guiana" OR "Haiti" OR "Honduras" OR "Índia" OR "Indonésia" OR "Irã" OR "Iraque" OR "Jamaica" OR "Jordânia" OR "Cazaquistão" OR "Quênia" OR "Kiribati" OR "Coréia, Rep* Dem*" OR "Coréia do Norte" OR "Kosovo" OR "Quirguistão" OR "Laos" OR "Líbano" OR "Lesoto" OR "Libéria" OR "Líbia" OR "Macedônia" OR "Madagascar" OR "Malawi" OR "Malásia" OR "Maldivas" OR "Mali" OR "Ilhas Marshall" OR "Mauritânia" OR "Maurící*" OR "México" OR "Micronésia" OR "Moldávia" OR "Mongólia" OR "Montenegro" OR "Marrocos" OR "Moçambique" OR "Mianmar" OR "Namíbia" OR "Nepal" OR "Nicarágua" OR Níger " OR "Nigéria" OR "Paquistão" OR "Palau" OR "Panamá" OR "Papua Nova Guiné" OR "Paraguai" OR "Peru" OR "Filipinas" OR "Romênia" OR "Federação Russa" OR "Rússia" OR "Ruanda" OR "Samoa" OR "São Tomé e Príncipe" OR "Senegal" OR "Sérvia" OR "Serra Leoa" OR "Ilhas Salomão" OR "Somália" OR"África do Sul" OR "Sudão do Sul" OR "Sri Lanka" OR "St. Lucia" OR "São. Vincente e Granadinas" OR "Sudão" OR “Suriname" OR "Suazilândia" OR "República Árabe da Síria" OR "Síria" OR "Tajiquistão" OR "Tanzânia" OR "Tailândia" OR "Timor-Leste" OR "Timor* Leste" OR "Togo" OR "Tonga" OR "Tunísia" OR "Turquia" OR "Turcomenistão" OR "Tuvalu" OR "Uganda" OR "Ucrânia" OR "Uzbequistão" OR "Vanuatu" OR "Venezuela" OR "Vietn*" OR "Cisjordânia” OR “Gaza" OR “Palestina” OR "Iêmen" OR "Zâmbia" OR "Zimbábue"

Search	Free text words - Spanish (MeSH terms only available in English)
#1	“atenci* primar* salud” OR “atenci* primar*” OR “cuidado* primar*” OR “salud primar*” OR “gestion* salud” OR “manej* salud” OR “interven* primar* salud*” OR “program* OR interven*” OR “interven* tempran*” OR “estrateg* salud primar*” OR “promoc* salud” OR “salud integral*” OR “salud* comuni*” OR “salud* famili*” OR “salud public*” OR “sistema* salud” OR “trabajad* salud” OR “agente* salud” OR “profession* salud” OR “politic* salud” OR “cuidado prenatal*” OR “clínica* prenatal*” OR “salud basic*” OR “atenci* basic*” OR “primer nivel de atención” OR “centro* de salud” OR “puesto* de salud” OR “posta* médica*”
#2	“violen* pareja*” OR “abuso* pareja*” OR “violencia conyug*” OR “abuso conyug*” OR “daño* pareja*” OR “violen* contra la* mujer*” OR “abus* contra la* mujer*” OR “mujer* golpeada*” OR “mujer* maltratada*” OR “violen* contra la* enamora*” OR “abus* contra la* enamora*” OR “violencia de género” OR “abuso de género” OR “violencia de* compañer* íntim*” OR “mujer* violentada*”
#3	“país* con ingreso mediano* bajo*” OR “país* con ingreso bajo* OR “país* subdesarrollado*” OR “país* en desarrollo*” OR “país* tercer mundo” OR “nacion* con ingreso mediano* bajo*” OR “nacion* del tercer mundo” OR “nacion* subdesarrollada*” OR “nacion* menos desarroll*” OR “nacion* con bajo desarroll*” OR “nacion* en desarrollo” OR “país* menos desaroll*” OR “país* menos desarroll*” OR “país* emergente*” OR “nacion* emergente*” OR “mundo emergente” OR “mundo subdesarrollado” OR” país* en vías de desarrollo” OR “Caribe” OR "América Latina*” OR "América del Sur" OR “Sudamérica” "África*" OR "Asia*" OR "Pacífico" OR "Oriente Medio" OR "Afganistán" OR "Albania" OR "Argelia" OR "Angola" OR "Argentina" OR “Samoa Americana” OR "Armenia" OR "Azerbaiyán" OR “Bangladesh” OR "Bielorrusia" OR "Belice" OR "Benin” OR "Bolivia" OR "Bosnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgaria" OR "Burkina Faso" OR "Burundi" OR “Bhutan”

	OR "Cabo Verde" OR "Camboya" OR "Camerún" OR "República Centroafricana" OR"Chad" OR "China" OR "Costa Rica" OR "Costa de Marfil" OR "Cuba" OR "Djibouti" OR "Dominica" OR "Costa Rica" OR "Colombia" OR "Comoras" OR "Congo, Rep*" OR "República Dominicana" OR "Ecuador" OR "Egipto" OR "El Salvador" OR "Guinea Ecuatorial" OR "Eritrea" OR "Etiopía" OR "Fiji" OR "Gabón" OR "Georgia" OR "Gambia" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guinea-Bissau" OR "Guyana" OR "Haití" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Irak" OR "Jamaica" OR "Jordania" OR "Kazajstán" OR "Kenia" OR "Kiribati" OR "Corea, República Democrática" OR "Corea del Norte" OR "Kosovo" OR "Laos" OR "Líbano" OR "Lesotho" OR "Liberia" OR "Libia" OR "Macedonia" OR "Madagascar" OR "Malawi" OR "Malasia" OR "Maldivas" OR "Mali" OR "Islas Marshall" OR "Mauritania" OR "Mauríci*" OR "México" OR "Micronesia" OR "Moldavia" OR "Mongolia" OR "Montenegro" OR "Marruecos" OR "Mozambique" OR "Myanmar" OR "Namibia" OR "Nepal" OR "Nicaragua" OR "Níger" OR "Nigeria" OR "Pakistán" OR "Palau" OR "Panamá" OR "Papúa Nueva Guinea" OR "Paraguay" OR "Perú" OR "Filipinas" OR "Rumania" OR "Rusia" OR "Rwanda" OR "Samoa" OR "Santo Tomé y Príncipe" OR "Senegal" OR "Serbia" OR "Sierra Leona" OR "Somalia" OR "Sudáfrica" OR "Sudán del Sur" OR "Sri Lanka" OR "St. Lucia" OR "Siria" OR "Tayikistán" OR "Tanzania" OR "Tailandia" OR "Timor Oriental" OR "República Democrática del Congo" OR "Tonga" OR "Túnez" OR "Turquía" OR "Turkmenistán" OR "Tuvalu" OR "Uganda" OR "Ucrania" OR "Uzbekistán" OR "Vanuatu" OR "Venezuela" OR "Vietnam" OR "Cisjordania*" OR "Gaza" OR "Palestina" OR "Yemen" OR "Zambia" OR "Zimbabwe"

This search strategy can be adapted and modified according to each electronic database.

Appendix 3 -PRISMA Flow Diagram: flow of information through different phases of a systematic review



Source: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med 2009;6:e1000097 doi:10.1371/journal.pmed.1000097 [published Online: 21 July 2009].

Appendix 4 - Data Items

1. General Information and characteristics of the studies

a. Author´s name
b. Journal
c. Year of publication
d. Country of the intervention
e. Context (urban/rural)
f. Type of service/setting
g. Participants (e.g. workers, users - victims, family members, perpetrators)

2. Methodology

a. Study design
b. Type of intervention
c. Sample/number of participants
d. Year(s) when intervention was conducted
e. Data collection
f. Measures
g. Analysis
h. Ethics clearance

3. Impacts/outcomes of the intervention for survivors:

a. IPV rates
b. health (e.g. physical, mental)
c. safety (e.g. safety plans)
d. wellbeing (e.g. quality of life)
e. children (e.g. children´s health and wellbeing)
f. Other Impacts/outcomes (if described)
g. Barriers and facilitators for survivors (if investigated)

4. Impacts/outcomes of the intervention for PHC workers:

a. Types of workers (e.g. nurses, community health workers, receptionists)
b. Worker's' role in the intervention
c. Measures of impacts/outcomes concerned to workers
d. Barriers and facilitators for workers (if described)

5. Role of the PHC services and public health systems to improve survivors' healthcare:

a. Measures of impacts/outcomes of the intervention for services/systems
b. Impacts/outcomes of the intervention for policies and organizational structure
c. Articulation with other levels of care in the healthcare system (e.g. hospital, emergency, etc.)
d. Articulation with other sectors beyond public health (e.g. police, justice, housing, etc.)
e. Costs
f. Sustainability
g. Barriers and facilitators for services/systems (if described)

6. Other relevant information

BMJ Open

Voices from low-and-middle-income countries: a systematic review protocol of primary health care interventions within public health systems addressing intimate partner violence against women

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2017-019266.R1
Article Type:	Protocol
Date Submitted by the Author:	21-Nov-2017
Complete List of Authors:	Signorelli, Marcos; Universidade Federal do Parana, Collective Health Hillel, Stav; La Trobe University - Melbourne Campus, Library de Oliveira, Daniel; Universidade Federal do Rio Grande do Sul, Collective Health Ayala Quintanilla, Beatriz; La Trobe University College of Science Health and Engineering, Judith Lumley Centre; Peruvian National Institute of Health, Lima Hegarty, Kelsey; University of Melbourne, Dept of General Practice; The Royal Women's Hospital Taft, Angela; La Trobe University, Mother and Child Health Research
Primary Subject Heading:	Public health
Secondary Subject Heading:	Health services research, General practice / Family practice
Keywords:	PUBLIC HEALTH, INTIMATE PARTNER VIOLENCE, LOW-AND-MIDDLE-INCOME COUNTRIES, PRIMARY CARE, SYSTEMATIC REVIEW

Title: Voices from low-and-middle-income countries: a systematic review protocol of primary health care interventions within public health systems addressing intimate partner violence against women

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ABSTRACT

Introduction: Intimate partner violence (IPV) considerably harms the health, safety, and wellbeing of women. In response, public health systems around the globe have been gradually implementing strategies. In particular, low- and middle-income countries (LMIC) have been developing innovative interventions in primary health care (PHC) addressing the problem. This paper describes a protocol for a systematic review of studies addressing the impacts and outcomes of PHC centre interventions addressing IPV against women from LMIC.

Methods and analysis: A systematic search for studies will be conducted in African Index Medicus, Africa Portal Digital Library, CINAHL, Embase, Index Medicus for the South-East Asia Region, IndMed, LILACS, Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, SciELO, and Social Policy and Practice. Studies will be in English, Spanish, and Portuguese, published between 2007 and 2017, addressing IPV against women from LMIC, whose data quantitatively report on the impacts and outcomes for survivors and/or workers and/or public health systems pre- and post-intervention. Two trilingual reviewers will independently screen for study eligibility and data extraction, and a librarian will cross check for compliance. Risk of bias and quality assessment of studies will be measured according to: (1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials; and (2) the methodological index for non-randomised studies (MINORS). Data will be analysed and summarised using meta-analysis and narrative description of the evidence across studies. This systematic review will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) guidelines.

Ethics and dissemination: This systematic review will be based on published studies, thus not requiring ethical approval. Findings will be presented in conferences and published in a peer-reviewed journal.

Trial registration number: International Prospective Register for Systematic Reviews (PROSPERO) number CRD42017069261

Strengths and limitations of this study

- The comprehensive search strategy of this systematic review will allow identification of a range of interventions from different LMIC published in peer-reviewed journals in English, Spanish and Portuguese.

- This protocol is co-authored by researchers from LMIC, who are native-speakers of the languages included in this systematic review. This can strengthen the review process given linguistic and cultural aspects of the diverse studies will be recognised.

- The review intends to promote voices from LMIC, who otherwise may go unheard, given relative financial barriers of LMIC research institutions and the publication bias to English.

- It is expected that there will be some variability related to methodological diversity and outcomes of the reviewed studies, due to the broad scope of PHC interventions addressing IPV, making it challenging to compare outcomes across different scenarios.

INTRODUCTION

Intimate partner violence (IPV) is the most prevalent type of violence against women[1,2]. The World Health Organization (WHO) estimates that one in three women experience physical or sexual IPV during their lifetime[1]. IPV against women is defined by the WHO as any behaviour within an intimate relationship that causes physical damage, psychological or sexual abuse to a woman in the

relationship, including physical assault, psychological abuse, forced intercourse, and other forms of sexual coercion and of controlling behaviours[2].

The consequences of IPV for women´s health have been extensively described, demonstrating that abused women have poorer health compared to women who have never been abused[3 4]. There are a wide range of consequences including: a) physical health, such as injuries, traumas, cardiovascular effects[5]; b) mental health, including depression, anxiety, post-traumatic stress disorder (PTSD), alcohol and drug abuse and suicide[6]; c) sexual and reproductive health, including sexually transmitted diseases (STD), miscarriage, reduced contraception and sexual autonomy[7]. The consequences are not only for women, but also for their children, including increased risk for low birth weight, preterm delivery, and neonatal death[7].

IPV against women is a common problem all over the world, but multicountry studies, such as the one developed by the WHO[3], which compared ten different income range countries, reveal higher prevalence and the worst consequences for women from low-and-middle-income countries (LMIC)[3]. The World Bank classifies all countries by income, based on the gross national income (GNI) per capita per year[8]. This review comprises the LMIC, which are the countries with a GNI per capita ≤ US$12,475 per year, as of March, 2017.

IPV has been recognized as a public health issue and included in the agendas of public health systems worldwide[2]. The WHO Sustainable Development Goal number 5 aims to achieve gender equality and empower all women and girls. It includes two subitems targeting violence specifically: 5.1 ‘End all forms of discrimination against all women and girls everywhere’; and 5.2 ‘Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation’[9]. The World Health Assembly in 2016 recommended actions[10], such as: strengthening health system leadership to prevent interpersonal violenceand improving health workers'/providers' capacity to respond to violence, in particular against women and children .

Each country responds differently to the problem in the health arena, and exchanging experiences can be a significant opportunity to foster local debate and action[11]. This systematic review focuses on experiences conducted within public health systems, and more specifically, in primary health care setting. Public health systems consist of systems provided and/or funded by governments aiming to promote the health of their citizens, considering health as a human right[12 13]. Public health systems intend to ensure that everyone has access to appropriate, efficient and quality health services, aiming for equity of access to health services for all populations[14]. Public health systems can have a crucial role in a multisector response to IPV, but it requires changes in the systems, coordinated planning and actions, for example, targeting different levels of care, such as primary health care (PHC)[15].

Primary health care can be considered both a philosophy and a system response to reducing health inequities and ameliorating the effects of disadvantage[16]. PHC is the first level of contact individuals, families and communities have with the healthcare system[17]. As it has a broad scope, in this study we adopt a more recent definition of PHC, consisting of ‘a socially appropriate, universally accessible, scientifically sound first level care provided by health services and systems with a suitably trained workforce comprised of multidisciplinary teams supported by integrated referral systems in a way that: gives priority to those most in need and addresses health inequalities; maximises community and individual self-reliance, participation and control; and involves collaboration and partnership with other sectors to promote public health’[18].

Globally, numerous LMIC are developing innovative interventions addressing IPV against women with a focus on PHC[19]. However, some of these interventions may go unnoticed by mainstream researchers from high-income countries. Our hypothesis is that this could be related to different factors, such as: 1) the high costs for the development of complex interventions considered the gold standard of research (e.g.: randomised controlled trials); 2) high publication costs in prestigious academic journals, accompanied by high standards which are difficult to achieve by LMIC researchers given scarce resources, and; 3) linguistic barriers, as writing papers in English—the dominant language for publication in prestigious journals of high income countries—can be very expensive for non-English speaking researchers. However, such interventions developed in LMIC are

not necessarily low quality studies. Indeed, they can be scalable and generalisable, affording insights for public health systems in other contexts, including both high-income countries and LMIC.

While previous reviews have been published in this area, they are either not systematic reviews[20 21], or if systematic, did not focus solely on LMIC[22]. Or if focusing on LMIC, did not target specifically health systems nor PHC[23]. Moreover, none of the extant systematic reviews include studies in Spanish or Portuguese, nor searched regional databases for literature. Thus, this will be the first systematic review addressing IPV interventions in PHC from LMIC to include studies in English, Spanish, and Portuguese, retrieved from, amongst others, regional databases.

The focus of this systematic review on PHC rather than the whole health system, because PHC is usually the first point of entrance for women in the health system, especially in LMIC. From our previous studies[24-26] and the literature[22], we noticed that PHC approaches to deal with IPV have some particularities, which are different from other levels of care, such as hospital settings, for example. The routines, professional training and strategies to prevent or reduce IPV can be very different across different levels of care, especially regarding low-and-middle-income contexts[21 23]. Consequently, the target of this review on PHC is to bring visibility to strategies conducted in this specific level of care, which is the least expensive and with greatest coverage[27-29]. We consider that this is of particular interest for LMIC, that could have an opportunity to manage the problem in the PHC system, with fewer resources and covering more people, compared to other levels of care. We believe that evidence from interventions developed within primary health systems from certain LMIC could provide reflections to support public health policy makers and managers to implement feasible interventions in greater scale and/or other countries.

REVIEW QUESTIONS

1) To what extent do primary health care interventions within public health systems improve the health, safety and wellbeing of women survivors of IPV in LMIC?
2) What are the main impacts and outcomes of these interventions for PHC workers' practices and the sustainability of these practices for public health systems?

OBJECTIVES

To conduct a systematic review of quantitative studies focusing on primary health care interventions in LMIC, with the aim of prevention or reduction of IPV alongside the improvement of survivors' health, safety and wellbeing.

METHODS

This systematic review will be conducted and reported according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P)[30 31], which includes the use of the PRISMA-P checklist (see appendix 1), following methodological approaches published in previous studies[32]. The review will be published according to the recommended items for systematic reviews based on the PRISMA statement[32]. This review will also be informed by the guidelines of the Cochrane Handbook[33] for systematic reviews of interventions to reinforce rigour along the process.

Study registration

This systematic review is registered in the PROSPERO International Prospective Register of Systematic Reviews with number CRD42017069261.
(http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42017069261)

Types of studies

In this review we will include studies with quantitative pre-and-post evaluation concerning PHC interventions of IPV against women from LMIC developed within their respective public health systems. For the purposes of this review, we will consider interventions as proposed by Blankenship[34], consisting on actions generally taken by outsiders (often read experts), but including individuals and collectives who take actions on their own behalf, purposefully to address a particular risk or disease. This can include individual interventions (focused on individuals' knowledge, attitudes and behaviors) or structural interventions (aiming to change structural factors, such as economic, politico-legal, physical, and social environment). The interventions can include the following experimental and quasi-experimental approaches: randomised controlled trial, non-randomised controlled trial, and quasi-experimental, but also include pre-post designs. We will not include observational studies, qualitative methodologies, or prevalence studies.

We license the inclusion of a broad type of interventions by acknowledging the relatively poor funding allotted to research in LMIC. While cognisant that RCTs, for example, are the gold standard in research, and further, that the Cochrane Collaboration largely recommends methodologically-randomised studies to be the focus of review, we argue that filtering solely for such studies would miss many interventions employed in LMIC - the economic capital in LMIC simply does not allow for it. Given our aim is to "hear voices for the LMIC," and encouraged by the Cochrane's recognition that non-RCTs may be more appropriate at times[33], our approach is expansive.

Types of participants and settings

We recognise that the definition of PHC can be very complex, and subject to conceptual debate. For the purpose of this review, we will include any healthcare facility considered as a Primary Healthcare Centre, but restricted to public health services from LMIC. The WHO[35] defines Primary Healthcare Centres as centres providing services which are usually the first point of contact with a health professional. They include services provided by general practitioners, dentists, community nurses, pharmacists and midwives, among others. It can include, for example, General Practice Clinics, Community Based Units, Basic Health Units, Family Health Strategy, Primary Care Home Visits, Day Care Centres, Multicentre Health Clinics and One Stop Crisis Center. This review will not include studies of interventions conducted outside of PHC centres and from the public health systems, such as media campaigns, interventions in schools or in hospitals, which are considered tertiary level of care.

Interventions in PHC for IPV usually focus on workers' strategies to improve survivors' health. This can include healthcare professionals, paraprofessionals, managers and other workers, like receptionists, for example. By 'survivors'[10] we mean any adult women older than 16 years-old affected by IPV and part of the population of an intervention of PHC centres from low- and middle-income countries. This review will target interventions addressed to adult women, because of their particularities, approaches and outcomes, which may be different from those targeting children. The impacts of interventions for children will not be excluded, but they can provide additional information. Consequently, the impact on children will be included in secondary outcomes.

Intervention(s), exposure

The types of interventions may include: studies about implementation of public policies to reduce/prevent IPV targeting PHC centres; education/training of PHC workers to manage IPV survivors; screening or case-finding IPV in PHC settings; strategies for organizational changes in PHC centres aiming to improve survivors' health, safety or wellbeing; therapeutic interventions for IPV focused in PHC centres.

Comparator(s)/control

Studies with all types of control conditions will also be included in this review, including no treatment group, treatment as usual, or comparison. We will not limit our review only to studies that compare active interventions with a control condition.

Types of outcomes measures

Primary outcomes

Primary outcomes will include the impacts and outcomes of the intervention for:
a) IPV, measured by validated instruments (such as the Composite Abuse Scale[36], Index of Spouse Abuse[37], etc.) or self-reported IPV (even if adopting unvalidated scale).
b) women´s perceived and diagnosed physical, psychological or sexual health and wellbeing, using validated instruments for each domain (such as General Health Questionnaire[38], Center for Epidemiologic Studies Depression Scale - CESD[39] - Post Traumatic Stress Disorder Checklist[40], the Short-Form Health Survey - SF-36[41], etc.).
c) women´s safety, adopting validated or unvalidated measures (such as safety plans, danger assessment[42], etc.).
d) PHC workers' practices, that may include identification of abuse by workers; information-giving or safety planning and referral to other services within the public health system (such as hospitals, emergency settings, etc.) or to other services beyond the public health (such as family violence support agencies, police, justice, housing, etc.);

Other outcomes (secondary outcomes)

Secondary outcomes will include the impacts and outcomes of the intervention for:
a) children's health and wellbeing, considering intimate partner abuse also affects children, assessments through validated instruments regarding children´s health and wellbeing will also be reviewed (such as Child Health Questionnaire – CHQ[43], etc.).
b) changes in public health systems' policies and practices, considering policies about system and worker responses; training programs in place; routine data collection; guidelines for workers; funding allocation and cost/benefit measures; and sustainability, considering for this analysis only follow-up evaluations conducted no less than 12 months after the conclusion of the intervention.

Search strategy

A systematic search will be conducted for literature published between 1 January 2007 and 31 July 2017. We choose this time range given the first multi-country study addressing our question in the context of LMIC was published in 2006[3].

The following databases will be searched: African Index Medicus, Africa Portal Digital Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, Index Medicus for the South-East Asia Region, IndMed, Latin American and Caribbean Health Science Information Database (LILACS), Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, Scientific Electronic Library Online (SciELO), Social Policy and Practice.

This review considers studies published in English, Spanish, and Portuguese, given these are the official languages of 69 of the 145 LMIC (World Bank). Earlier systematic reviews[23] concerning interventions to IPV in LMIC did not consider articles in languages other than English. This review team consists of authors native in the three languages included, minimizing bias related to language. Accordingly, keywords and MeSH will be translated from English by author 1 and reviewed by authors 3 (to Portuguese) and 4 (to Spanish).

Authors 1 and 2 independently consider keywords and MeSH headings. Any discrepancies are subjected to justification. The general search strategy is shown in appendix 2, and will be adapted and modified appropriately according to each database.

Data collection and analysis

Eligibility criteria of the studies:

The inclusion criteria will be:

1. Studies from the eligible bibliographic databases with selected (combination of) terms and keywords (appendix 2).
2. Peer reviewed articles published in English, Spanish or Portuguese
3. Studies published between 2007 and 2017.
4. Interventions related to IPV conducted in PHC centres within the public health systems from LMIC.
5. Quantitative pre-and-post studies assessing the impacts and outcomes for survivors (adult women) and/or workers and/or public health systems.
6. Primary data collection or existing data set analysis.

The exclusion criteria will be:

1. Studies published in languages other than English, Spanish or Portuguese.
2. Interventions from non-LMIC or not-conducted in PHC centres or conducted only in the private health system.
3. Studies that did not quantitatively assess pre-and-post interventions or that did not describe the impacts and outcomes for survivors (adult women), workers or public health systems.
4. Studies that do not include a primary or secondary outcome related to interventions for IPV against adult women.
5. Grey literature, including any study protocols, theses, case reports, letters, opinions, editorials, weekly reports, policy documents, congress abstracts, theoretical papers, observational studies, qualitative studies or reviews.
6. Studies published in 2006 or earlier or with the full text not available in the eligible databases.
7. Duplicate studies that have used the same study population or data. In this case, it will be used only the most recent or relevant publication, for researches published in more than one journal.

Data management of the studies

COVIDENCE (www.covidence.org) will be employed to manage retrieved studies and to conduct the systematic review process. The bibliographic software platform Endnote (online version www.myendnoteweb.com) will also be used to manage and store relevant studies for this review. These softwares will remove duplicates thereby cleaning the sample. A checklist will be developed based on the eligibility criteria of this review. The flow diagram showing the main steps of this systematic review is available on Appendix 3, following the PRISMA statement[30 31].

Data selection of the studies

The first step consists of the screening of potential studies. This will be done independently and blinded by two investigators fluent in the three languages included in this review (Authors 1 and 3). They will analyse titles and abstracts of all non-duplicate papers from the electronic search, assessing their eligibility. This process of double blinded screening was previously described[44] for rigorous systematic reviews. Some papers may not describe precisely their abstracts, so a careful search is

proposed to maximise the inclusion of studies. Following Ayala-Quintanilla and colleagues[44], if there is uncertainty about the inclusion of a certain study in this step, that study will be temporarily included and will proceed to the next step for more evaluation. Considering all the selected databases provide an English version of their titles and abstracts, a librarian (Author 2) will cross-check this first step, comparing the independent results obtained from each investigator and ensuring that all steps were conducted in compliance with the protocol. If there is any uncertainty between the resultant studies, the librarian will seek for an opinion from one of the advisors (Authors 5 and 6) that compose this review team.

The second step consists of examining the full version of all selected studies from the first step, concerning the selection criteria. Two investigators will analyse independently all the articles for each language. The librarian will double check it this process.

The final list of selected studies will be reviewed independently. For each exclusion, justification will be documented. The results will be compared by the librarian, and any disagreements will be discussed and if necessary, consultation with a third author will occur to reach the consensus.

Appraisal/assessment of the risk of bias of the included studies

It is expected that eligible studies will vary according to their methodological approach. There is a vast range of tools to assess the quality and bias of studies. Nevertheless, evaluating such biases and qualities is a challenging task and there is no consensus to conduct it.

Grading of Recommendations, Assessment, Development and Evaluation (GRADE)[45] and the EQUATOR (Enhancing the Quality and Transparency of health Research) Network[46] provide support with guidelines and tools to evaluate the studies, rating up according to the level of evidence.

In this review, to minimize the risk of bias and evaluate the quality of evidence of each article included, we will adopt: 1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials[47]; 2) the Methodological index for non-randomised studies (MINORS)[48] to assess non-randomised interventional studies. This process will be independently performed by different authors (two authors for articles written in English, two for studies written in Portuguese, and two for articles in Spanish) and any disagreement will be discussed and resolved by a third author, if needed.

Data extraction

For this third step, three investigators (Authors 1, 3 and 4) will independently and blindly extract all data items (see appendix 4) of each included study with a standardised data collection form. The first author will extract data from studies in English and Portuguese. The third author will extract data from studies in Portuguese and Spanish, while the fourth author will collect from Spanish and English. All extracted data will be converted into English by authors for articles in Spanish or Portuguese, to allow the analysis by all authors in a common language for all. To guarantee that no errors will be made, the librarian (Author 2) will randomly cross-check these data. Any disagreements will be resolved by consensus between the two authors collecting each language and a third author (Author 5 or 6) can be arbitrator if consensus is not reached, following other systematic review protocols[44].

Data items

The descriptive items that will be collected are (see appendix 4): (1) general information and characteristics of the study, including the country/place, type of service where it was conducted, target participants and their main sociodemographic characteristics; (2) methodological characteristics, including the type of method and how data/information were collected, components that were analysed/; (3) impacts and outcomes for survivors, including IPV rates, women's health, safety and wellbeing and also impacts for their children; (4) impacts and outcomes for PHC workers, including

types of workers, their roles and concerning measures; (5) impacts and outcomes for the public health systems, including measures of articulation with other levels of care (for example, hospitals, emergency units, intensive care units, etc) and other sectors beyond the public health (for example, housing, financing, police, justice, social services, etc), and also evaluation of costs and sustainability of the intervention. For items 3, 4 and 5, we will also collect information about barriers and facilitators for each of the three components (survivors, workers and systems), if available.

Data synthesis and analysis

Data extracted will be analysed and summarised aiming to answer the research questions. Data will be summarised according to the outcomes: 1) for survivors, including their health, safety and wellbeing as well as impacts on IPV rates; 2) for PHC workers' practices considering their role to improve survivors' health care, and 3) for public health systems, including evaluation of costs and sustainability.

When appropriate, a meta-analysis can be conducted, if a sufficient number of trials are identified with sufficient homogeneity. The meta-analysis will be conducted with aggregate data, rather than at the individual participant level. Continuous and categorical variables will be summarised according to the presentation of data of each study. Dichotomous outcome data (yes/no experience of IPV) will be described as risk ratios with their 95% confidence intervals. It will also be indicated if those findings were adjusted for confounders. It is anticipated that there will be some variability of reporting impacts and outcomes of interventions across studies. In this case, a narrative description of the available evidence will be conducted instead. This will consider which results are significant and their association with the outcomes, based on data availability across studies.
This review will present the results reported in the original studies, however authors may be contacted for relevant primary source of data. As indicated previously, we will calculate data, where possible, using the original information from the study such as for IPV or women´s health, safety and wellbeing. In addition, quantitative data from figures can be utilised if there is sufficient information reported/explained in the study.

Additional data analysis can be made in order to assess the comparisons between studies, if possible. Qualitative synthesis of relevant process evaluations of included studies will be reported descriptively, restricting to qualitative components from eligible quantitative studies.

For duplicate studies that have used the same study population or data, the most recent or relevant publication will be utilised for studies published in more than one journal, if possible the data will be linked together.

In summary, data analysis will be performed according to the data availability of eligible studies, and statistical expertise will be consulted as needed. The software STATA (version 15) will be utilised for all the quantitative analyses. We will relatively give more weight in the synthesis to results from studies with stronger design.

Cochrane's recommendations for reviews in public health

This review will follow some of the Cochrane guidelines for reviews conducted in public health and health promotion scenarios. One of the key points is sustainability, referred by The Cochrane Collaboration Group[33] as an important aspect to be included in systematic reviews in public health contexts, because it is likely to increase the concern of policymakers, practitioners and funders. When sustainability was measured in eligible studies we will look for additional explanations about which outcomes were measured over what period. However, if it was not measured, but authors explore the

potential for sustainability it will also be summarised.

Another Cochrane[33] recommendation for systematic reviews in public health is the consideration of applicability and transferability. Applicability refers to how the findings of a given study or review can be translated into specific population or settings. Transferability is also referred as the potential for this translation occurs. If the reviewed studies mention these aspects, they will also be included in the analysis.

Economic evidence

Cochrane[33] recommends the review of economic evidence, because it provides additional information for decision makers, considering not only if a strategy or intervention works, but also whether its adoption will improve the use of resources. The economic issues are not the main objective of this review, therefore, it will not be an inclusion or exclusion criteria, but will compose an additional source of information when mentioned in the studies. We believe this information will be particularly important for LMIC and summary will be presented when described in eligible studies.

PRESENTING AND REPORTING THE RESULTS

The process of selection of eligible studies for the systematic review will follow the flow diagram according to guidelines of the PRISMA-P (appendix 1). The main steps of the review will include: the identification of studies, screening, evaluation according to inclusion/exclusion criteria and analysis of eligible studies. Results will be presented according to the outcomes: for survivors; for PHC workers; and for public health systems. Data will be summarized in tables depending on data from each study, but presenting first author's name, country, year of publication, study design, aims and main outcomes.

POTENTIAL AMENDMENTS

This protocol is designed to guide with rigour all the steps of this systematic review. Amendments are not expected, but if necessary, just in case of any unexpected event, they will be reported in a detailed and consistent way, followed by appropriate justification. The same will be applied to any differences between the protocol and the review. In case of differences, they will be fully described in a specific section of the final review, providing rationale for them.

CONCLUSION AND IMPLICATIONS

Intimate partner violence is one of the main public health problems for women's health, safety and wellbeing. It requires effective and sustainable actions to reduce harm and life-threatening, targeting comprehensive interventions, particularly in primary health care settings in low-and-middle income contexts. This challenge is more severe in developing countries and exchanging effective interventions can be a coordinated way to foster debate and action. This review will systematise the knowledge previously produced, identifying research gaps and opportunities on interventions conducted in LMIC.

IPV is a potentially preventable issue, but its complexity requires the articulation of different sectors (including health systems, education, justice, among others), in different levels (highlighting the key potential role of the primary care level, but connecting to other levels), with collaboration of different actors (such as health professionals, managers, police, etc.) and with different targets (survivors, perpetrators, families, communities, etc.).

Facing this complex scenario, it is significant to recognize the limitations of this review, such as the types of studies included, that do not include all possible methodological approaches conducted in LMIC. Another limitation is the possible diversity of interventions, that can be challenging to be compared and systematised. It could be possible that other relevant studies will be excluded, since this

review includes only studies published in English, Portuguese and Spanish. Another potential limitation may be that funding for rigorous studies of IPV interventions has only been fostered in the past few years, potentially limiting the ability to identify relevant studies in the review time period. In a systematic review, this limitation may also become a study finding, since a dearth of evidence is, in itself, useful to inform the field.

It is important to mention that the findings of this systematic review will be cautiously interpreted and the conclusions will be presented with parsimony, considering such limitations. This review will only focus in a 'tip of the iceberg', but it can raise questions for future studies with focus, for example, in other levels of care or in other sectors rather than the public health or even including other methodological approaches, such as qualitative studies, which have been extensively reported in LMIC.

ETHICS AND DISSEMINATION

Ethical issues

This systematic review is based on studies previously published and does not include collection of new primary data. Consequently, the host university has stated that is not necessary to obtain ethical clearance.

Publication Plan

This review will be publicized in conferences (preliminary results) and the final article will be published in a peer-reviewed journal. We intend to publish both the protocol and the systematic review in open access journals, aiming to be accessible to investigators currently engaged in interventions in low-and-middle-income countries. This review affords a voice to researchers in the field of IPV who would otherwise go unheard, and provide greater insights into the range of possible interventions for nations facing comparable issues. It is expected that the final publication can support public systems and policies worldwide.

Author's contributions

MS conceived the review. SH, BQ, DO and AT assisted on the design of the study protocol. MS and SH drafted the protocol paper and all authors edited the subsequent versions. AT and KH critically revised the methodology. All authors have reviewed and approved the final version of the text.

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Appendix 1 - PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item	Page number
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not an update
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	~~PROSPERO CRD420170692613~~
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	12~~0~~
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	12~~1~~
Sponsor	5b	Provide name for the review funder and/or sponsor	12~~1~~
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	12~~1~~
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	3, 4, 5
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	~~4~~5
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	~~4,~~ 5, 6, 7
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	~~6~~7
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Detailed on Appendix 2
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	~~7~~8

Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	~~7~~8
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	~~8~~9
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	~~8~~ 9 and Appendix 4
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	~~5,~~ 6, 7
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	~~7,~~ 8, 9
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	~~8,~~9, 10
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	~~8,~~ 9, 10
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	~~8,~~ 9, 10
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	8, 9

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

Appendix 2 - General Search Strategy

1. ('primary health care*' or 'primary care*' or 'primary health*' or 'primary health care interven*' or 'health* manag*' or 'care manag*' or 'primary health interven*' or 'prevent* program*' or 'prevent* interven*' or 'early interven*' or 'primary health*' or strateg* or 'health promot*' or 'comprehensive health*' or 'community health*' or 'famil* health*' or 'public health*' or 'health* system*' or 'health* worker*' or 'health* profession*' or 'health* polic*' or 'antenatal car*' or 'antenatal clinic*' or 'basic health*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

2. Primary Health Care/ or Public Health/ or Health Policy/ or Health Promotion/ or Health Personnel/ or Developing Countries/

3. 1 {or/and} 2

4. ('partner violen*' or 'partner abus*' or 'spouse violen*' or 'spouse abus*' or 'partner harm*' or 'violen* against wom*' or 'battered women' or 'dating violen*' or 'dating abus*' or 'gender based violen*' or 'gender based abus*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms

5. Intimate Partner Violence/ or Battered Women/

6. 4 {or/and} 5

7. ('low* middle* incom* countr*' OR 'low* incom* countr*' OR 'middle* incom* countr*' OR 'underdevelop* countr*' OR 'developing countr*' OR 'third* world countr*' OR 'low* middle* income* nation*' OR 'third*world* nation*' OR 'underdevelop* nation*' OR 'less* developed nation*' OR 'low* income nation*' OR 'developing nation*' OR 'least* developed countr*' OR 'emerg* countr*' OR 'less-developed countr*' OR 'developing world*' OR 'undeveloped world*' OR 'emerg* world' OR 'Latin* America*' OR 'Central* America*' OR 'Caribbean' OR 'South* America*' OR 'Africa*' OR 'Asia*' OR 'Pacific' OR 'Middle* East*' OR 'Latin* America*' OR 'Central America*' OR 'South America*' OR 'Africa*' OR 'Asia*' OR 'Pacific*' OR 'Middle East*' OR 'Afghanistan' OR 'Albania' OR 'Algeria' OR 'American Samoa' OR 'Angola' OR 'Argentina' OR 'Armenia' OR 'Azerbaijan' OR 'Bangladesh' OR 'Belarus' OR 'Belize' OR 'Benin' OR 'Bhutan' OR 'Bolivia' OR 'Bosnia*Herzegovina' OR 'Botswana' OR 'Brazil' OR 'Bulgaria' OR 'Burkina Faso' OR 'Burundi' OR 'Cabo Verde' OR 'Cambodia' OR 'Cameroon' OR 'Central African Republic' OR 'Chad' OR 'China' OR 'Colombia' OR 'Comoros' OR 'Congo, Dem* Rep*' OR 'Congo, Rep*' OR 'Costa Rica' OR 'Cote d'Ivoire' OR 'Cuba' OR 'Djibouti' OR 'Dominica' OR 'Dominican Republic' OR 'Ecuador' OR 'Egypt' OR 'El Salvador' OR 'Equatorial Guinea' OR 'Eritrea' OR 'Ethiopia' OR 'Fiji' OR 'Gabon' OR 'Gambia' OR 'Georgia' OR 'Ghana' OR 'Grenada' OR 'Guatemala' OR 'Guinea' OR 'Guinea-Bissau' OR 'Guyana' OR 'Haiti' OR 'Honduras' OR 'India' OR 'Indonesia' OR 'Iran' OR 'Iraq' OR 'Jamaica' OR 'Jordan' OR 'Kazakhstan' OR 'Kenya' OR 'Kiribati' OR 'Korea, Dem* People's Rep*' OR 'North Korea' OR 'Kosovo' OR 'Kyrgyz' OR 'Lao' OR 'Lebanon' OR 'Lesotho' OR 'Liberia' OR 'Libya' OR 'Macedonia' OR 'Madagascar' OR 'Malawi' OR 'Malaysia' OR 'Maldives' OR 'Mali' OR 'Marshall Islands' OR 'Mauritania' OR 'Mauritius' OR Mexico' OR 'Micronesia' OR 'Moldova' OR 'Mongolia' OR 'Montenegro' OR 'Morocco' OR 'Mozambique' OR 'Myanmar' OR 'Namibia' OR 'Nepal' OR 'Nicaragua' OR Niger' OR 'Nigeria' OR 'Pakistan' OR 'Palau' OR 'Palestine' OR 'Panama' OR 'Papua New Guinea' OR 'Paraguay' OR 'Peru' OR 'Philippines' OR 'Romania' OR 'Russian Federation' OR 'Russia' OR 'Rwanda' OR 'Samoa' OR 'Sao Tome and Principe' OR 'Senegal' OR 'Serbia' OR 'Sierra Leone' OR 'Solomon Islands'OR 'Somalia' OR 'South Africa' OR 'South Sudan' OR 'Sri Lanka' OR 'St. Lucia' OR 'St. Vincent and the Grenadines' OR 'Sudan' OR 'Suriname' OR 'Swaziland' OR 'Syrian Arab Republic' OR 'Syria' OR 'Tajikistan' OR 'Tanzania'OR 'Thailand' OR 'Timor-Leste' OR 'East Timor' OR 'Togo' OR 'Tonga' OR 'Tunisia' OR 'Turkey' OR 'Turkmenistan' OR 'Tuvalu' OR 'Uganda'OR 'Ukraine' OR 'Uzbekistan' OR 'Vanuatu' OR 'Venezuela' OR 'Vietnam' OR 'West Bank* Gaza' OR 'Yemen' OR 'Zambia' OR 'Zimbabwe').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word,

rare disease supplementary concept word, unique identifier, synonyms]

8. Developing countries/ OR Argentina/ OR Bolivia/ OR Brazil/ OR Colombia/ OR Ecuador/ OR Guyana/ OR Paraguay/ OR Peru/ OR Suriname/ OR Venezuela/ OR exp Latin America/ OR exp Caribbean Region/ OR exp Central America/ OR exp Africa/ OR esp Central Asia/ OR exp Northern Asia/ OR Cambodia/ OR Timor-Leste/ OR Indonesia/ OR Laos/ OR Malaysia/ OR Myanmar/ OR Philippines/ OR Thailand/ OR Vietnan/ OR Bangladesh/ OR Buthan/ OR exp India/ OR Nepal/ OR Pakistan/ OR Sri Lanka/ OR Afghanistan/ OR Iran/ OR Iraq/ OR Jordan/ OR Lebanon/ OR Syria/ OR Turkey/ OR Yemen/ OR exp China/ OR Mongolia/ OR Democratic People´s Republic of Korea/ OR Balkan Peninsula/ OR Albania/ OR Bosnia and Herzegovina/ OR Bulgaria/ OR Kosovo/ OR Macedonia/ OR Moldova/ OR Montenegro/ OR exp Republic of Belarus OR Romania/ OR exp Russia/ OR Serbia/ OR Ukraine/ OR exp Transcaucasia/ OR Comoros/ OR Madagascar/ OR Mauritius/ OR Indonesia/ OR Fiji/ OR Papua New Guinea/ OR Vanuatu/ OR Palau/ OR exp Samoa/ OR Tonga/ OR Cuba/ OR Dominica/ OR Dominican Republic/ OR Grenada/ OR Haiti/ OR Jamaica/ OR St. Lucia/ OR St. Vincent and the Grenadines/

9. 7 {or/and} 8

10. 3 and 6 and 9

11. Limit 10 to (full text and yr="2007 -Current" and (English or Portuguese or Spanish))

Search	Free text words - Portuguese (MeSH terms only available in English)
#1	“atenção primár* saúde” OR “cuidado* primár*” OR “saúde primár*” OR “gestão* saúde” OR “manej* saúde” OR “interven* saúde* primár*” OR “program* preven*” OR “interven* preven*” OR “interven* precoce*” OR “estratégi* saúde primár*” OR “promoç* d* saúde” OR “saúde integral*” OR “saúde* comuni*” OR “saúde* família*” OR “saúde públic*” OR “sistema* saúde*” OR “trabalhador* saúde” OR “agente* saúde” OR “profissiona* saúde” OR “polític* saúde” OR “cuidado* pré-nata*” OR “ambulatór* pré-nata*” OR “saúde básic*” OR “atenç* básic*” OR “centro* saúde” OR “posto* saúde” OR “unidade* saúde”
#2	“violen* parceir*” OR “abus* parceir*” OR “violen* conjug*” OR “abus* conjug*” OR “agress* parceir*” OR “violen* contra* mulher*” OR “mulher* espancada*” OR “violen* namor*” OR “abus* namor*” OR “violen* gênero” OR “abus* gênero”
#3	“país* renda baixa* média*” OR “país* baixa* média* renda*” OR “país* baixa* renda*” OR “país* renda* média” OR “país* subdesenvolv*” OR “país* em desenvolvimento” OR “país* terceiro mundo” OR “naç* renda baixa* média*” OR “naç* terceiro mundo” OR “naç* subdesenvolv*” OR “naç* menos desenvolvid*” OR “naç* baix* desenvolv*” OR “naç* em desenvolvimento” OR “país* menos desenvolvid*” OR “país* emergente*” OR “país* pobre*” OR “naç* pobre*” OR “mundo em desenvolvimento” OR “mundo subdesenvolvido” OR “mundo emergente” OR “naç* emergente* OR “América Latin*” OR "América Central" OR "América do Sul" OR “Carib*” OR "África*" OR "Ásia*" OR "Pacífico*" OR “Oceania” OR "Oriente Médio" OR "Afeganistão" OR "Albânia" OR "Argélia" OR "Samoa Americana" OR "Angola" OR "Argentina" OR "Armênia" OR "Azerbaijão" OR "Bangladesh" OR "Bielorrússia" OR "Belize" OR "Benin" OR "Butão" OR "Bolívia" OR "Bósnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgária" OR “Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Camboja" OR "Camarões" OR "República Centro-Africana" OR "Chade" OR "China" OR "Colômbia" OR "Comores" OR "Congo, Dem* Rep*" OR "Congo, Rep*" OR "Costa Rica" OR "Costa do Marfim" OR "Cuba" OR "DjiboutI" OR

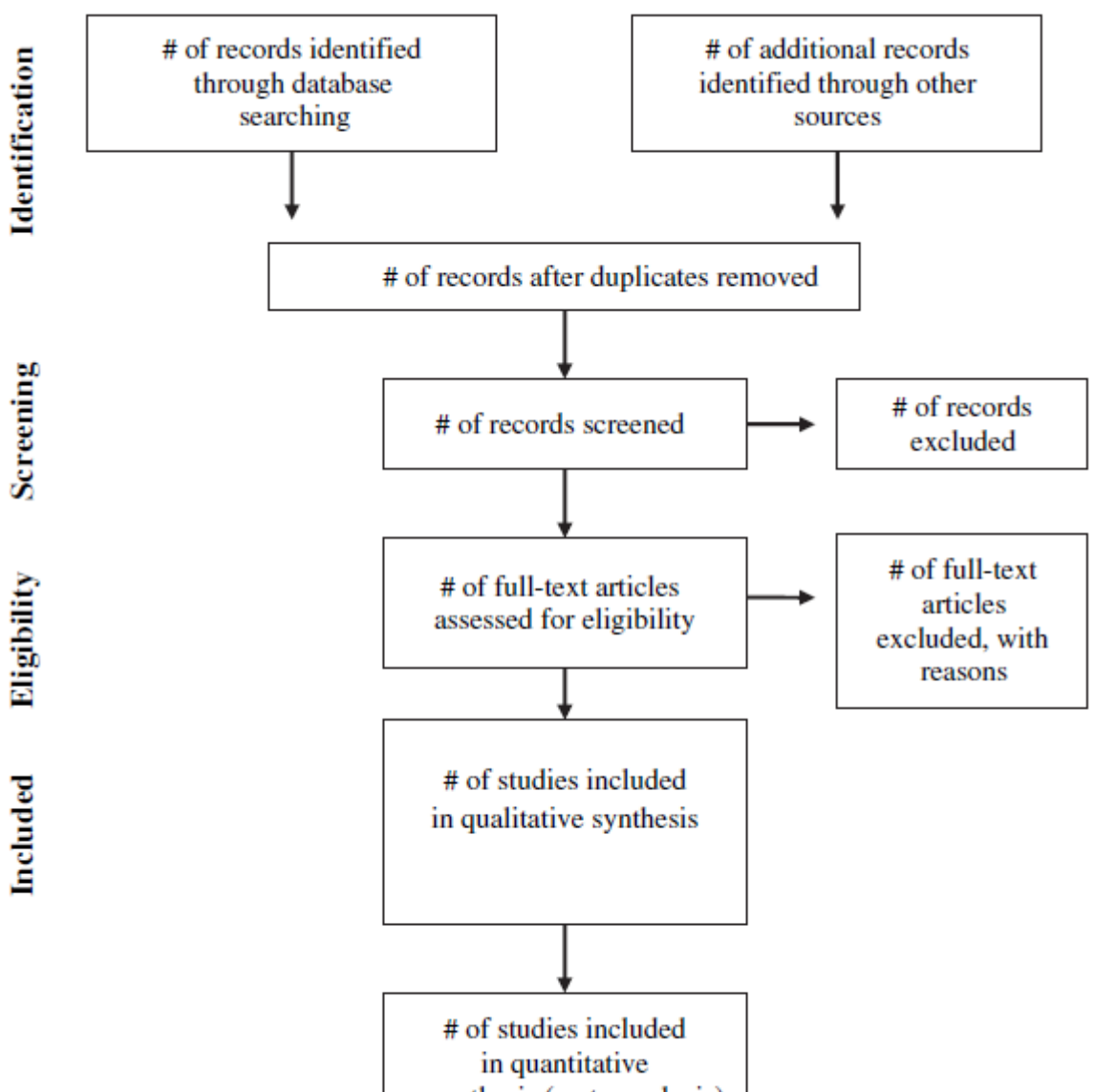
	"Dominica" OR "República Dominicana" OR "Equador" OR "Egito" OR "El Salvador" OR "Guiné Equatorial" OR "Eritreia" OR "Etiópia" OR "Fiji" OR "Gabão" OR "Gâmbia" OR "Geórgia" OR "Gana" OR "Granada" OR "Guatemala" OR "Guiné" OR "Guiné-Bissau" OR "Guiana" OR "Haiti" OR "Honduras" OR "Índia" OR "Indonésia" OR "Irã" OR "Iraque" OR "Jamaica" OR "Jordânia" OR "Cazaquistão" OR "Quênia" OR "Kiribati" OR "Coréia, Rep* Dem*" OR "Coréia do Norte" OR "Kosovo" OR "Quirguistão" OR "Laos" OR "Líbano" OR "Lesoto" OR "Libéria" OR "Líbia" OR "Macedônia" OR "Madagascar" OR "Malawi" OR "Malásia" OR "Maldivas" OR "Mali" OR "Ilhas Marshall" OR "Mauritânia" OR "Maurící*" OR "México" OR "Micronésia" OR "Moldávia" OR "Mongólia" OR "Montenegro" OR "Marrocos" OR "Moçambique" OR "Mianmar" OR "Namíbia" OR "Nepal" OR "Nicarágua" OR Níger " OR "Nigéria" OR "Paquistão" OR "Palau" OR "Panamá" OR "Papua Nova Guiné" OR "Paraguai" OR "Peru" OR "Filipinas" OR "Romênia" OR "Federação Russa" OR "Rússia" OR "Ruanda" OR "Samoa" OR "São Tomé e Príncipe" OR "Senegal" OR "Sérvia" OR "Serra Leoa" OR "Ilhas Salomão" OR "Somália" OR"África do Sul" OR "Sudão do Sul" OR "Sri Lanka" OR "St. Lucia" OR "São. Vincente e Granadinas" OR "Sudão" OR “Suriname" OR "Suazilândia" OR "República Árabe da Síria" OR "Síria" OR "Tajiquistão" OR "Tanzânia" OR "Tailândia" OR "Timor-Leste" OR "Timor* Leste" OR "Togo" OR "Tonga" OR "Tunísia" OR "Turquia" OR "Turcomenistão" OR "Tuvalu" OR "Uganda" OR "Ucrânia" OR "Uzbequistão" OR "Vanuatu" OR "Venezuela" OR "Vietn*" OR "Cisjordânia” OR “Gaza" OR “Palestina” OR "Iêmen" OR "Zâmbia" OR "Zimbábue"

Search	Free text words - Spanish (MeSH terms only available in English)
#1	“atenci* primar* salud” OR “atenci* primar*” OR “cuidado* primar*” OR “salud primar*” OR “gestion* salud” OR “manej* salud” OR “interven* primar* salud*” OR “program* OR interven*” OR “interven* tempran*” OR “estrateg* salud primar*” OR “promoc* salud” OR “salud integral*” OR “salud* comuni*” OR “salud* famili*” OR “salud public*” OR “sistema* salud” OR “trabajad* salud” OR “agente* salud” OR “profession* salud” OR “politic* salud” OR “cuidado prenatal*” OR “clínica* prenatal*” OR “salud basic*” OR “atenci* basic*” OR “primer nivel de atención” OR “centro* de salud” OR “puesto* de salud” OR “posta* médica*”
#2	“violen* pareja*” OR “abuso* pareja*” OR “violencia conyug*” OR “abuso conyug*” OR “daño* pareja*” OR “violen* contra la* mujer*” OR “abus* contra la* mujer*” OR “mujer* golpeada*” OR “mujer* maltratada*” OR “violen* contra la* enamora*” OR “abus* contra la* enamora*” OR “violencia de género” OR “abuso de género” OR “violencia de* compañer* íntim*” OR “mujer* violentada*”
#3	“país* con ingreso mediano* bajo*” OR “país* con ingreso bajo* OR “país* subdesarrollado*” OR “país* en desarrollo*” OR “país* tercer mundo” OR “nacion* con ingreso mediano* bajo*” OR “nacion* del tercer mundo” OR “nacion* subdesarrollada*” OR “nacion* menos desarroll*” OR “nacion* con bajo desarroll*” OR “nacion* en desarrollo” OR “país* menos desaroll*” OR “país* menos desarroll*” OR “país* emergente*” OR “nacion* emergente*” OR “mundo emergente” OR “mundo subdesarrollado” OR” país* en vías de desarrollo” OR “Caribe” OR "América Latina*” OR "América del Sur" OR “Sudamérica” "África*" OR "Asia*" OR "Pacífico" OR "Oriente Medio" OR "Afganistán" OR "Albania" OR "Argelia" OR "Angola" OR "Argentina" OR “Samoa Americana” OR "Armenia" OR "Azerbaiyán" OR “Bangladesh” OR "Bielorrusia" OR "Belice" OR "Benin” OR "Bolivia" OR "Bosnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgaria" OR "Burkina Faso" OR "Burundi" OR “Bhutan”

	OR "Cabo Verde" OR "Camboya" OR "Camerún" OR "República Centroafricana" OR"Chad" OR "China" OR "Costa Rica" OR "Costa de Marfil" OR "Cuba" OR "Djibouti" OR "Dominica" OR "Costa Rica" OR "Colombia" OR "Comoras" OR "Congo, Rep*" OR "República Dominicana" OR "Ecuador" OR "Egipto" OR "El Salvador" OR "Guinea Ecuatorial" OR "Eritrea" OR "Etiopía" OR "Fiji" OR "Gabón" OR "Georgia" OR "Gambia" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guinea-Bissau" OR "Guyana" OR "Haití" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Irak" OR "Jamaica" OR "Jordania" OR "Kazajstán" OR "Kenia" OR "Kiribati" OR "Corea, República Democrática" OR "Corea del Norte" OR "Kosovo" OR "Laos" OR "Líbano" OR "Lesotho" OR "Liberia" OR "Libia" OR "Macedonia" OR "Madagascar" OR "Malawi" OR "Malasia" OR "Maldivas" OR "Mali" OR "Islas Marshall" OR "Mauritania" OR "Mauríci*" OR "México" OR "Micronesia" OR "Moldavia" OR "Mongolia" OR "Montenegro" OR "Marruecos" OR "Mozambique" OR "Myanmar" OR "Namibia" OR "Nepal" OR "Nicaragua" OR "Níger" OR "Nigeria" OR "Pakistán" OR "Palau" OR "Panamá" OR "Papúa Nueva Guinea" OR "Paraguay" OR "Perú" OR "Filipinas" OR "Rumania" OR "Rusia" OR "Rwanda" OR "Samoa" OR "Santo Tomé y Príncipe" OR "Senegal" OR "Serbia" OR "Sierra Leona" OR "Somalia" OR "Sudáfrica" OR "Sudán del Sur" OR "Sri Lanka" OR "St. Lucia" OR "Siria" OR "Tayikistán" OR "Tanzania" OR "Tailandia" OR "Timor Oriental" OR "República Democrática del Congo" OR "Tonga" OR "Túnez" OR "Turquía" OR "Turkmenistán" OR "Tuvalu" OR "Uganda" OR "Ucrania" OR "Uzbekistán" OR "Vanuatu" OR "Venezuela" OR "Vietnam" OR "Cisjordania*" OR "Gaza" OR "Palestina" OR "Yemen" OR "Zambia" OR "Zimbabwe"

This search strategy can be adapted and modified according to each electronic database.

Appendix 3 -PRISMA Flow Diagram: flow of information through different phases of a systematic review



Source: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med 2009;6:e1000097 doi:10.1371/journal.pmed.1000097 [published Online: 21 July 2009].

Appendix 4 - Data Items

1. General Information and characteristics of the studies

a. Author´s name
b. Journal
c. Year of publication
d. Country of the intervention
e. Context (urban/rural)
f. Type of service/setting
g. Participants (e.g. workers, users - victims, family members, perpetrators)

2. Methodology

a. Study design
b. Type of intervention
c. Sample/number of participants
d. Year(s) when intervention was conducted
e. Data collection
f. Measures
g. Analysis
h. Ethics clearance

3. Impacts~~/~~ and outcomes of the intervention for survivors:

a. IPV rates
b. health (e.g. physical, mental)
c. safety (e.g. safety plans)
d. wellbeing (e.g. quality of life)
e. children (e.g. children´s health and wellbeing)
f. Other Impacts~~/~~ and outcomes (if described)
g. Barriers and facilitators for survivors (if investigated)

4. Impacts~~/~~ and outcomes of the intervention for PHC workers' practices:

a. Types of workers (e.g. nurses, community health workers, receptionists)
b. Worker's' role in the intervention
c. Measures of impacts and ~~/~~outcomes concerned to workers
d. Barriers and facilitators for workers (if described)

5. Role of the PHC services and public health systems to improve survivors' healthcare:

a. Measures of impacts and ~~/~~outcomes of the intervention for services/systems
b. Impacts and ~~/~~outcomes of the intervention for policies and organizational structure
c. Articulation with other levels of care in the healthcare system (e.g. hospital, emergency, etc.)
d. Articulation with other sectors beyond public health (e.g. police, justice, housing, etc.)
e. Costs
f. Sustainability
g. Barriers and facilitators for services/systems (if described)

6. Other relevant information

BMJ Open

Voices from low-and-middle-income countries: a systematic review protocol of primary health care interventions within public health systems addressing intimate partner violence against women

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ABSTRACT

Introduction: Intimate partner violence (IPV) considerably harms the health, safety, and wellbeing of women. In response, public health systems around the globe have been gradually implementing strategies. In particular, low- and middle-income countries (LMIC) have been developing innovative interventions in primary health care (PHC) addressing the problem. This paper describes a protocol for a systematic review of studies addressing the impacts and outcomes of PHC centre interventions addressing IPV against women from LMIC.

Methods and analysis: A systematic search for studies will be conducted in African Index Medicus, Africa Portal Digital Library, CINAHL, Embase, Index Medicus for the South-East Asia Region, IndMed, LILACS, Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, SciELO, and Social Policy and Practice. Studies will be in English, Spanish, and Portuguese, published between 2007 and 2017, addressing IPV against women from LMIC, whose data quantitatively report on the impacts and outcomes for survivors and/or workers and/or public health systems pre- and post-intervention. Two trilingual reviewers will independently screen for study eligibility and data extraction, and a librarian will cross check for compliance. Risk of bias and quality assessment of studies will be measured according to: (1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials; and (2) the methodological index for non-randomised studies (MINORS). Data will be analysed and summarised using meta-analysis and narrative description of the evidence across studies. This systematic review will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) guidelines.

Ethics and dissemination: This systematic review will be based on published studies, thus not requiring ethical approval. Findings will be presented in conferences and published in a peer-reviewed journal.

Trial registration number: International Prospective Register for Systematic Reviews (PROSPERO) number CRD42017069261

Strengths and limitations of this study

- The comprehensive search strategy of this systematic review will allow identification of a range of interventions from different LMIC published in peer-reviewed journals in English, Spanish and Portuguese.

- This protocol is co-authored by researchers from LMIC, who are native-speakers of the languages included in this systematic review. This can strengthen the review process given linguistic and cultural aspects of the diverse studies will be recognised.

- The review intends to promote voices from LMIC, who otherwise may go unheard, given relative financial barriers of LMIC research institutions and the publication bias to English.

- It is expected that there will be some variability related to methodological diversity and outcomes of the reviewed studies, due to the broad scope of PHC interventions addressing IPV, making it challenging to compare outcomes across different scenarios.

INTRODUCTION

Intimate partner violence (IPV) is the most prevalent type of violence against women[1,2]. The World Health Organization (WHO) estimates that one in three women experience physical or sexual IPV during their lifetime[1]. IPV against women is defined by the WHO as any behaviour within an intimate relationship that causes physical damage, psychological or sexual abuse to a woman in the

relationship, including physical assault, psychological abuse, forced intercourse, and other forms of sexual coercion and of controlling behaviours[2].

The consequences of IPV for women´s health have been extensively described, demonstrating that abused women have poorer health compared to women who have never been abused[3 4]. There are a wide range of consequences including: a) physical health, such as injuries, traumas, cardiovascular effects[5]; b) mental health, including depression, anxiety, post-traumatic stress disorder (PTSD), alcohol and drug abuse and suicide[6]; c) sexual and reproductive health, including sexually transmitted diseases (STD), miscarriage, reduced contraception and sexual autonomy[7]. The consequences are not only for women, but also for their children, including increased risk for low birth weight, preterm delivery, and neonatal death[7].

IPV against women is a common problem all over the world, but multicountry studies, such as the one developed by the WHO[3], which compared ten different income range countries, reveal higher prevalence and the worst consequences for women from low-and-middle-income countries (LMIC)[3]. The World Bank classifies all countries by income, based on the gross national income (GNI) per capita per year[8]. This review comprises the LMIC, which are the countries with a GNI per capita ≤ US$12,475 per year, as of March, 2017.

IPV has been recognized as a public health issue and included in the agendas of public health systems worldwide[2]. The WHO Sustainable Development Goal number 5 aims to achieve gender equality and empower all women and girls. It includes two subitems targeting violence specifically: 5.1 ‘End all forms of discrimination against all women and girls everywhere’; and 5.2 ‘Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation’[9]. The World Health Assembly in 2016 recommended actions[10], such as: strengthening health system leadership to prevent interpersonal violenceand improving health workers'/providers' capacity to respond to violence, in particular against women and children .

Each country responds differently to the problem in the health arena, and exchanging experiences can be a significant opportunity to foster local debate and action[11]. This systematic review focuses on experiences conducted within public health systems, and more specifically, in primary health care setting. Public health systems consist of systems provided and/or funded by governments aiming to promote the health of their citizens, considering health as a human right[12 13]. Public health systems intend to ensure that everyone has access to appropriate, efficient and quality health services, aiming for equity of access to health services for all populations[14]. Public health systems can have a crucial role in a multisector response to IPV, but it requires changes in the systems, coordinated planning and actions, for example, targeting different levels of care, such as primary health care (PHC)[15].

Primary health care can be considered both a philosophy and a system response to reducing health inequities and ameliorating the effects of disadvantage[16]. PHC is the first level of contact individuals, families and communities have with the healthcare system[17]. As it has a broad scope, in this study we adopt a more recent definition of PHC, consisting of ‘a socially appropriate, universally accessible, scientifically sound first level care provided by health services and systems with a suitably trained workforce comprised of multidisciplinary teams supported by integrated referral systems in a way that: gives priority to those most in need and addresses health inequalities; maximises community and individual self-reliance, participation and control; and involves collaboration and partnership with other sectors to promote public health’[18].

Globally, numerous LMIC are developing innovative interventions addressing IPV against women with a focus on PHC[19]. However, some of these interventions may go unnoticed by mainstream researchers from high-income countries. Our hypothesis is that this could be related to different factors, such as: 1) the high costs for the development of complex interventions considered the gold standard of research (e.g.: randomised controlled trials); 2) high publication costs in prestigious academic journals, accompanied by high standards which are difficult to achieve by LMIC researchers given scarce resources, and; 3) linguistic barriers, as writing papers in English—the dominant language for publication in prestigious journals of high income countries—can be very expensive for non-English speaking researchers. However, such interventions developed in LMIC are

not necessarily low quality studies. Indeed, they can be scalable and generalisable, affording insights for public health systems in other contexts, including both high-income countries and LMIC.

While previous reviews have been published in this area, they are either not systematic reviews[20 21], or if systematic, did not focus solely on LMIC[22]. Or if focusing on LMIC, did not target specifically health systems nor PHC[23]. Moreover, none of the extant systematic reviews include studies in Spanish or Portuguese, nor searched regional databases for literature. Thus, this will be the first systematic review addressing IPV interventions in PHC from LMIC to include studies in English, Spanish, and Portuguese, retrieved from, amongst others, regional databases.

The focus of this systematic review on PHC rather than the whole health system, because PHC is usually the first point of entrance for women in the health system, especially in LMIC. From our previous studies[24-26] and the literature[22], we noticed that PHC approaches to deal with IPV have some particularities, which are different from other levels of care, such as hospital settings, for example. The routines, professional training and strategies to prevent or reduce IPV can be very different across different levels of care, especially regarding low-and-middle-income contexts[21 23]. Consequently, the target of this review on PHC is to bring visibility to strategies conducted in this specific level of care, which is the least expensive and with greatest coverage[27-29]. We consider that this is of particular interest for LMIC, that could have an opportunity to manage the problem in the PHC system, with fewer resources and covering more people, compared to other levels of care. We believe that evidence from interventions developed within primary health systems from certain LMIC could provide reflections to support public health policy makers and managers to implement feasible interventions in greater scale and/or other countries.

REVIEW QUESTIONS

1) To what extent do primary health care interventions within public health systems improve the health, safety and wellbeing of women survivors of IPV in LMIC?
2) What are the main impacts and outcomes of these interventions for PHC workers' practices and the sustainability of these practices for public health systems?

OBJECTIVES

To conduct a systematic review of quantitative studies focusing on primary health care interventions in LMIC, with the aim of prevention or reduction of IPV alongside the improvement of survivors' health, safety and wellbeing.

METHODS

This systematic review will be conducted and reported according to the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocols (PRISMA-P)[30 31], which includes the use of the PRISMA-P checklist (see appendix 1), following methodological approaches published in previous studies[32]. The review will be published according to the recommended items for systematic reviews based on the PRISMA statement[32]. This review will also be informed by the guidelines of the Cochrane Handbook[33] for systematic reviews of interventions to reinforce rigour along the process.

Study registration

This systematic review is registered in the PROSPERO International Prospective Register of Systematic Reviews with number CRD42017069261.
(http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42017069261)

Types of studies

In this review we will include studies with quantitative pre-and-post evaluation concerning PHC interventions of IPV against women from LMIC developed within their respective public health systems. For the purposes of this review, we will consider interventions as proposed by Blankenship[34], consisting on actions generally taken by outsiders (often read experts), but including individuals and collectives who take actions on their own behalf, purposefully to address a particular risk or disease. This can include individual interventions (focused on individuals' knowledge, attitudes and behaviors) or structural interventions (aiming to change structural factors, such as economic, politico-legal, physical, and social environment). The interventions can include the following experimental and quasi-experimental approaches: randomised controlled trial, non-randomised controlled trial, and quasi-experimental, but also include pre-post designs. We will not include observational studies, qualitative methodologies, or prevalence studies.

We license the inclusion of a broad type of interventions by acknowledging the relatively poor funding allotted to research in LMIC. While cognisant that RCTs, for example, are the gold standard in research, and further, that the Cochrane Collaboration largely recommends methodologically-randomised studies to be the focus of review, we argue that filtering solely for such studies would miss many interventions employed in LMIC - the economic capital in LMIC simply does not allow for it. Given our aim is to "hear voices for the LMIC," and encouraged by the Cochrane's recognition that non-RCTs may be more appropriate at times[33], our approach is expansive.

Types of participants and settings

We recognise that the definition of PHC can be very complex, and subject to conceptual debate. For the purpose of this review, we will include any healthcare facility considered as a Primary Healthcare Centre, but restricted to public health services from LMIC. The WHO[35] defines Primary Healthcare Centres as centres providing services which are usually the first point of contact with a health professional. They include services provided by general practitioners, dentists, community nurses, pharmacists and midwives, among others. It can include, for example, General Practice Clinics, Community Based Units, Basic Health Units, Family Health Strategy, Primary Care Home Visits, Day Care Centres, Multicentre Health Clinics and One Stop Crisis Center. This review will not include studies of interventions conducted outside of PHC centres and from the public health systems, such as media campaigns, interventions in schools or in hospitals, which are considered tertiary level of care.

Interventions in PHC for IPV usually focus on workers' strategies to improve survivors' health. This can include healthcare professionals, paraprofessionals, managers and other workers, like receptionists, for example. By 'survivors'[10] we mean any adult women older than 16 years-old affected by IPV and part of the population of an intervention of PHC centres from low- and middle-income countries. This review will target interventions addressed to adult women, because of their particularities, approaches and outcomes, which may be different from those targeting children. The impacts of interventions for children will not be excluded, but they can provide additional information. Consequently, the impact on children will be included in secondary outcomes.

Intervention(s), exposure

The types of interventions may include: studies about implementation of public policies to reduce/prevent IPV targeting PHC centres; education/training of PHC workers to manage IPV survivors; screening or case-finding IPV in PHC settings; strategies for organizational changes in PHC centres aiming to improve survivors' health, safety or wellbeing; therapeutic interventions for IPV focused in PHC centres.

Comparator(s)/control

Studies with all types of control conditions will also be included in this review, including no treatment group, treatment as usual, or comparison. We will not limit our review only to studies that compare active interventions with a control condition.

Types of outcomes measures

Primary outcomes

Primary outcomes will include the impacts and outcomes of the intervention for:
a) IPV, measured by validated instruments (such as the Composite Abuse Scale[36], Index of Spouse Abuse[37], etc.) or self-reported IPV (even if adopting unvalidated scale).
b) women´s perceived and diagnosed physical, psychological or sexual health and wellbeing, using validated instruments for each domain (such as General Health Questionnaire[38], Center for Epidemiologic Studies Depression Scale - CESD[39] - Post Traumatic Stress Disorder Checklist[40], the Short-Form Health Survey - SF-36[41], etc.).
c) women´s safety, adopting validated or unvalidated measures (such as safety plans, danger assessment[42], etc.).
d) PHC workers' practices, that may include identification of abuse by workers; information-giving or safety planning and referral to other services within the public health system (such as hospitals, emergency settings, etc.) or to other services beyond the public health (such as family violence support agencies, police, justice, housing, etc.);

Other outcomes (secondary outcomes)

Secondary outcomes will include the impacts and outcomes of the intervention for:
a) children's health and wellbeing, considering intimate partner abuse also affects children, assessments through validated instruments regarding children´s health and wellbeing will also be reviewed (such as Child Health Questionnaire – CHQ[43], etc.).
b) changes in public health systems' policies and practices, considering policies about system and worker responses; training programs in place; routine data collection; guidelines for workers; funding allocation and cost/benefit measures; and sustainability, considering for this analysis only follow-up evaluations conducted no less than 12 months after the conclusion of the intervention.

Search strategy

A systematic search will be conducted for literature published between 1 January 2007 and 31 July 2017. We choose this time range given the first multi-country study addressing our question in the context of LMIC was published in 2006[3].

The following databases will be searched: African Index Medicus, Africa Portal Digital Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Embase, Index Medicus for the South-East Asia Region, IndMed, Latin American and Caribbean Health Science Information Database (LILACS), Medecins Sans Frontieres, Medline, Minority Health and Health Equity Archive, ProQuest, PsychInfo, Scientific Electronic Library Online (SciELO), Social Policy and Practice.

This review considers studies published in English, Spanish, and Portuguese, given these are the official languages of 69 of the 145 LMIC (World Bank). Earlier systematic reviews[23] concerning interventions to IPV in LMIC did not consider articles in languages other than English. This review team consists of authors native in the three languages included, minimizing bias related to language. Accordingly, keywords and MeSH will be translated from English by author 1 and reviewed by authors 3 (to Portuguese) and 4 (to Spanish).

Authors 1 and 2 independently consider keywords and MeSH headings. Any discrepancies are subjected to justification. The general search strategy is shown in appendix 2, and will be adapted and modified appropriately according to each database.

Data collection and analysis

Eligibility criteria of the studies:

The inclusion criteria will be:

1. Studies from the eligible bibliographic databases with selected (combination of) terms and keywords (appendix 2).
2. Peer reviewed articles published in English, Spanish or Portuguese
3. Studies published between 2007 and 2017.
4. Interventions related to IPV conducted in PHC centres within the public health systems from LMIC.
5. Quantitative pre-and-post studies assessing the impacts and outcomes for survivors (adult women) and/or workers and/or public health systems.
6. Primary data collection or existing data set analysis.

The exclusion criteria will be:

1. Studies published in languages other than English, Spanish or Portuguese.
2. Interventions from non-LMIC or not-conducted in PHC centres or conducted only in the private health system.
3. Studies that did not quantitatively assess pre-and-post interventions or that did not describe the impacts and outcomes for survivors (adult women), workers or public health systems.
4. Studies that do not include a primary or secondary outcome related to interventions for IPV against adult women.
5. Grey literature, including any study protocols, theses, case reports, letters, opinions, editorials, weekly reports, policy documents, congress abstracts, theoretical papers, observational studies, qualitative studies or reviews.
6. Studies published in 2006 or earlier or with the full text not available in the eligible databases.
7. Duplicate studies that have used the same study population or data. In this case, it will be used only the most recent or relevant publication, for researches published in more than one journal.

Data management of the studies

COVIDENCE (www.covidence.org) will be employed to manage retrieved studies and to conduct the systematic review process. The bibliographic software platform Endnote (online version www.myendnoteweb.com) will also be used to manage and store relevant studies for this review. These softwares will remove duplicates thereby cleaning the sample. A checklist will be developed based on the eligibility criteria of this review. The flow diagram showing the main steps of this systematic review is available on Appendix 3, following the PRISMA statement[30 31].

Data selection of the studies

The first step consists of the screening of potential studies. This will be done independently and blinded by two investigators fluent in the three languages included in this review (Authors 1 and 3). They will analyse titles and abstracts of all non-duplicate papers from the electronic search, assessing their eligibility. This process of double blinded screening was previously described[44] for rigorous systematic reviews. Some papers may not describe precisely their abstracts, so a careful search is

proposed to maximise the inclusion of studies. Following Ayala-Quintanilla and colleagues[44], if there is uncertainty about the inclusion of a certain study in this step, that study will be temporarily included and will proceed to the next step for more evaluation. Considering all the selected databases provide an English version of their titles and abstracts, a librarian (Author 2) will cross-check this first step, comparing the independent results obtained from each investigator and ensuring that all steps were conducted in compliance with the protocol. If there is any uncertainty between the resultant studies, the librarian will seek for an opinion from one of the advisors (Authors 5 and 6) that compose this review team.

The second step consists of examining the full version of all selected studies from the first step, concerning the selection criteria. Two investigators will analyse independently all the articles for each language. The librarian will double check it this process.

The final list of selected studies will be reviewed independently. For each exclusion, justification will be documented. The results will be compared by the librarian, and any disagreements will be discussed and if necessary, consultation with a third author will occur to reach the consensus.

Appraisal/assessment of the risk of bias of the included studies

It is expected that eligible studies will vary according to their methodological approach. There is a vast range of tools to assess the quality and bias of studies. Nevertheless, evaluating such biases and qualities is a challenging task and there is no consensus to conduct it.

Grading of Recommendations, Assessment, Development and Evaluation (GRADE)[45] and the EQUATOR (Enhancing the Quality and Transparency of health Research) Network[46] provide support with guidelines and tools to evaluate the studies, rating up according to the level of evidence.

In this review, to minimize the risk of bias and evaluate the quality of evidence of each article included, we will adopt: 1) the Cochrane Collaboration's tool for assessing risk of bias for randomised controlled trials[47]; 2) the Methodological index for non-randomised studies (MINORS)[48] to assess non-randomised interventional studies. This process will be independently performed by different authors (two authors for articles written in English, two for studies written in Portuguese, and two for articles in Spanish) and any disagreement will be discussed and resolved by a third author, if needed.

Data extraction

For this third step, three investigators (Authors 1, 3 and 4) will independently and blindly extract all data items (see appendix 4) of each included study with a standardised data collection form. The first author will extract data from studies in English and Portuguese. The third author will extract data from studies in Portuguese and Spanish, while the fourth author will collect from Spanish and English. All extracted data will be converted into English by authors for articles in Spanish or Portuguese, to allow the analysis by all authors in a common language for all. To guarantee that no errors will be made, the librarian (Author 2) will randomly cross-check these data. Any disagreements will be resolved by consensus between the two authors collecting each language and a third author (Author 5 or 6) can be arbitrator if consensus is not reached, following other systematic review protocols[44].

Data items

The descriptive items that will be collected are (see appendix 4): (1) general information and characteristics of the study, including the country/place, type of service where it was conducted, target participants and their main sociodemographic characteristics; (2) methodological characteristics, including the type of method and how data/information were collected, components that were analysed/; (3) impacts and outcomes for survivors, including IPV rates, women's health, safety and wellbeing and also impacts for their children; (4) impacts and outcomes for PHC workers, including

types of workers, their roles and concerning measures; (5) impacts and outcomes for the public health systems, including measures of articulation with other levels of care (for example, hospitals, emergency units, intensive care units, etc) and other sectors beyond the public health (for example, housing, financing, police, justice, social services, etc), and also evaluation of costs and sustainability of the intervention. For items 3, 4 and 5, we will also collect information about barriers and facilitators for each of the three components (survivors, workers and systems), if available.

Data synthesis and analysis

Data extracted will be analysed and summarised aiming to answer the research questions. Data will be summarised according to the outcomes: 1) for survivors, including their health, safety and wellbeing as well as impacts on IPV rates; 2) for PHC workers' practices considering their role to improve survivors' health care, and 3) for public health systems, including evaluation of costs and sustainability.

When appropriate, a meta-analysis can be conducted, if a sufficient number of trials are identified with sufficient homogeneity. The meta-analysis will be conducted with aggregate data, rather than at the individual participant level. Continuous and categorical variables will be summarised according to the presentation of data of each study. Dichotomous outcome data (yes/no experience of IPV) will be described as risk ratios with their 95% confidence intervals. It will also be indicated if those findings were adjusted for confounders. It is anticipated that there will be some variability of reporting impacts and outcomes of interventions across studies. In this case, a narrative description of the available evidence will be conducted instead. This will consider which results are significant and their association with the outcomes, based on data availability across studies.
This review will present the results reported in the original studies, however authors may be contacted for relevant primary source of data. As indicated previously, we will calculate data, where possible, using the original information from the study such as for IPV or women´s health, safety and wellbeing. In addition, quantitative data from figures can be utilised if there is sufficient information reported/explained in the study.

Additional data analysis can be made in order to assess the comparisons between studies, if possible. Qualitative synthesis of relevant process evaluations of included studies will be reported descriptively, restricting to qualitative components from eligible quantitative studies.

For duplicate studies that have used the same study population or data, the most recent or relevant publication will be utilised for studies published in more than one journal, if possible the data will be linked together.

In summary, data analysis will be performed according to the data availability of eligible studies, and statistical expertise will be consulted as needed. The software STATA (version 15) will be utilised for all the quantitative analyses. We will relatively give more weight in the synthesis to results from studies with stronger design.

Cochrane's recommendations for reviews in public health

This review will follow some of the Cochrane guidelines for reviews conducted in public health and health promotion scenarios. One of the key points is sustainability, referred by The Cochrane Collaboration Group[33] as an important aspect to be included in systematic reviews in public health contexts, because it is likely to increase the concern of policymakers, practitioners and funders. When sustainability was measured in eligible studies we will look for additional explanations about which outcomes were measured over what period. However, if it was not measured, but authors explore the

potential for sustainability it will also be summarised.

Another Cochrane[33] recommendation for systematic reviews in public health is the consideration of applicability and transferability. Applicability refers to how the findings of a given study or review can be translated into specific population or settings. Transferability is also referred as the potential for this translation occurs. If the reviewed studies mention these aspects, they will also be included in the analysis.

Economic evidence

Cochrane[33] recommends the review of economic evidence, because it provides additional information for decision makers, considering not only if a strategy or intervention works, but also whether its adoption will improve the use of resources. The economic issues are not the main objective of this review, therefore, it will not be an inclusion or exclusion criteria, but will compose an additional source of information when mentioned in the studies. We believe this information will be particularly important for LMIC and summary will be presented when described in eligible studies.

PRESENTING AND REPORTING THE RESULTS

The process of selection of eligible studies for the systematic review will follow the flow diagram according to guidelines of the PRISMA-P (appendix 1). The main steps of the review will include: the identification of studies, screening, evaluation according to inclusion/exclusion criteria and analysis of eligible studies. Results will be presented according to the outcomes: for survivors; for PHC workers; and for public health systems. Data will be summarized in tables depending on data from each study, but presenting first author's name, country, year of publication, study design, aims and main outcomes.

POTENTIAL AMENDMENTS

This protocol is designed to guide with rigour all the steps of this systematic review. Amendments are not expected, but if necessary, just in case of any unexpected event, they will be reported in a detailed and consistent way, followed by appropriate justification. The same will be applied to any differences between the protocol and the review. In case of differences, they will be fully described in a specific section of the final review, providing rationale for them.

CONCLUSION AND IMPLICATIONS

Intimate partner violence is one of the main public health problems for women's health, safety and wellbeing. It requires effective and sustainable actions to reduce harm and life-threatening, targeting comprehensive interventions, particularly in primary health care settings in low-and-middle income contexts. This challenge is more severe in developing countries and exchanging effective interventions can be a coordinated way to foster debate and action. This review will systematise the knowledge previously produced, identifying research gaps and opportunities on interventions conducted in LMIC.

IPV is a potentially preventable issue, but its complexity requires the articulation of different sectors (including health systems, education, justice, among others), in different levels (highlighting the key potential role of the primary care level, but connecting to other levels), with collaboration of different actors (such as health professionals, managers, police, etc.) and with different targets (survivors, perpetrators, families, communities, etc.).

Facing this complex scenario, it is significant to recognize the limitations of this review, such as the types of studies included, that do not include all possible methodological approaches conducted in LMIC. Another limitation is the possible diversity of interventions, that can be challenging to be compared and systematised. It could be possible that other relevant studies will be excluded, since this

review includes only studies published in English, Portuguese and Spanish. Another potential limitation may be that funding for rigorous studies of IPV interventions has only been fostered in the past few years, potentially limiting the ability to identify relevant studies in the review time period. In a systematic review, this limitation may also become a study finding, since a dearth of evidence is, in itself, useful to inform the field.

It is important to mention that the findings of this systematic review will be cautiously interpreted and the conclusions will be presented with parsimony, considering such limitations. This review will only focus in a 'tip of the iceberg', but it can raise questions for future studies with focus, for example, in other levels of care or in other sectors rather than the public health or even including other methodological approaches, such as qualitative studies, which have been extensively reported in LMIC.

ETHICS AND DISSEMINATION

Ethical issues

This systematic review is based on studies previously published and does not include collection of new primary data. Consequently, the host university has stated that is not necessary to obtain ethical clearance.

Publication Plan

This review will be publicized in conferences (preliminary results) and the final article will be published in a peer-reviewed journal. We intend to publish both the protocol and the systematic review in open access journals, aiming to be accessible to investigators currently engaged in interventions in low-and-middle-income countries. This review affords a voice to researchers in the field of IPV who would otherwise go unheard, and provide greater insights into the range of possible interventions for nations facing comparable issues. It is expected that the final publication can support public systems and policies worldwide.

Author's contributions

MS conceived the review. SH, BQ, DO and AT assisted on the design of the study protocol. MS and SH drafted the protocol paper and all authors edited the subsequent versions. AT and KH critically revised the methodology. All authors have reviewed and approved the final version of the text. MS is the guarantor of the review.

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Competing interests: none

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Appendix 1 - PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol*

Section and topic	Item No	Checklist item	Page number
ADMINISTRATIVE INFORMATION			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	Not an update
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	PROSPERO CRD420170692613
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1-2
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	12
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	Not applicable
Support:			
Sources	5a	Indicate sources of financial or other support for the review	12
Sponsor	5b	Provide name for the review funder and/or sponsor	12
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	12
INTRODUCTION			
Rationale	6	Describe the rationale for the review in the context of what is already known	3-5
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	5
METHODS			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	6-8
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	7

Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Appendix 2
Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	8
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	8
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	9
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	9 and Appendix 4
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	9
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	10
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I^2, Kendall's τ)	10
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	Not applicable
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	10-11
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	Not applicable
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	9-10

*** It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (2015 when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.

Appendix 2 - General Search Strategy

1. ('primary health care*' or 'primary care*' or 'primary health*' or 'primary health care interven*' or 'health* manag*' or 'care manag*' or 'primary health interven*' or 'prevent* program*' or 'prevent* interven*' or 'early interven*' or 'primary health*' or strateg* or 'health promot*' or 'comprehensive health*' or 'community health*' or 'famil* health*' or 'public health*' or 'health* system*' or 'health* worker*' or 'health* profession*' or 'health* polic*' or 'antenatal car*' or 'antenatal clinic*' or 'basic health*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]

2. Primary Health Care/ or Public Health/ or Health Policy/ or Health Promotion/ or Health Personnel/ or Developing Countries/

3. 1 {or/and} 2

4. ('partner violen*' or 'partner abus*' or 'spouse violen*' or 'spouse abus*' or 'partner harm*' or 'violen* against wom*' or 'battered women' or 'dating violen*' or 'dating abus*' or 'gender based violen*' or 'gender based abus*').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms

5. Intimate Partner Violence/ or Battered Women/

6. 4 {or/and} 5

7. ('low* middle* incom* countr*' OR 'low* incom* countr*' OR 'middle* incom* countr*' OR 'underdevelop* countr*' OR 'developing countr*' OR 'third* world countr*' OR 'low* middle* income* nation*' OR 'third*world* nation*' OR 'underdevelop* nation*' OR 'less* developed nation*' OR 'low* income nation*' OR 'developing nation*' OR 'least* developed countr*' OR 'emerg* countr*' OR 'less-developed countr*' OR 'developing world*' OR 'undeveloped world*' OR 'emerg* world' OR 'Latin* America*' OR 'Central* America*' OR 'Caribbean' OR 'South* America*' OR 'Africa*' OR 'Asia*' OR 'Pacific' OR 'Middle* East*' OR 'Latin* America*' OR 'Central America*' OR 'South America*' OR 'Africa*' OR 'Asia*' OR 'Pacific*' OR 'Middle East*' OR 'Afghanistan' OR 'Albania' OR 'Algeria' OR 'American Samoa' OR 'Angola' OR 'Argentina' OR 'Armenia' OR 'Azerbaijan' OR 'Bangladesh' OR 'Belarus' OR 'Belize' OR 'Benin' OR 'Bhutan' OR 'Bolivia' OR 'Bosnia*Herzegovina' OR 'Botswana' OR 'Brazil' OR 'Bulgaria' OR 'Burkina Faso' OR 'Burundi' OR 'Cabo Verde' OR 'Cambodia' OR 'Cameroon' OR 'Central African Republic' OR 'Chad' OR 'China' OR 'Colombia' OR 'Comoros' OR 'Congo, Dem* Rep*' OR 'Congo, Rep*' OR 'Costa Rica' OR 'Cote d'Ivoire' OR 'Cuba' OR 'Djibouti' OR 'Dominica' OR 'Dominican Republic' OR 'Ecuador' OR 'Egypt' OR 'El Salvador' OR 'Equatorial Guinea' OR 'Eritrea' OR 'Ethiopia' OR 'Fiji' OR 'Gabon' OR 'Gambia' OR 'Georgia' OR 'Ghana' OR 'Grenada' OR 'Guatemala' OR 'Guinea' OR 'Guinea-Bissau' OR 'Guyana' OR 'Haiti' OR 'Honduras' OR 'India' OR 'Indonesia' OR 'Iran' OR 'Iraq' OR 'Jamaica' OR 'Jordan' OR 'Kazakhstan' OR 'Kenya' OR 'Kiribati' OR 'Korea, Dem* People's Rep*' OR 'North Korea' OR 'Kosovo' OR 'Kyrgyz' OR 'Lao' OR 'Lebanon' OR 'Lesotho' OR 'Liberia' OR 'Libya' OR 'Macedonia' OR 'Madagascar' OR 'Malawi' OR 'Malaysia' OR 'Maldives' OR 'Mali' OR 'Marshall Islands' OR 'Mauritania' OR 'Mauritius' OR Mexico' OR 'Micronesia' OR 'Moldova' OR 'Mongolia' OR 'Montenegro' OR 'Morocco' OR 'Mozambique' OR 'Myanmar' OR 'Namibia' OR 'Nepal' OR 'Nicaragua' OR Niger' OR 'Nigeria' OR 'Pakistan' OR 'Palau' OR 'Palestine' OR 'Panama' OR 'Papua New Guinea' OR 'Paraguay' OR 'Peru' OR 'Philippines' OR 'Romania' OR 'Russian Federation' OR 'Russia' OR 'Rwanda' OR 'Samoa' OR 'Sao Tome and Principe' OR 'Senegal' OR 'Serbia' OR 'Sierra Leone' OR 'Solomon Islands'OR 'Somalia' OR 'South Africa' OR 'South Sudan' OR 'Sri Lanka' OR 'St. Lucia' OR 'St. Vincent and the Grenadines' OR 'Sudan' OR 'Suriname' OR 'Swaziland' OR 'Syrian Arab Republic' OR 'Syria' OR 'Tajikistan' OR 'Tanzania'OR 'Thailand' OR 'Timor-Leste' OR 'East Timor' OR 'Togo' OR 'Tonga' OR 'Tunisia' OR 'Turkey' OR 'Turkmenistan' OR 'Tuvalu' OR 'Uganda'OR 'Ukraine' OR 'Uzbekistan' OR 'Vanuatu' OR 'Venezuela' OR 'Vietnam' OR 'West Bank* Gaza' OR 'Yemen' OR 'Zambia' OR 'Zimbabwe').mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word,

rare disease supplementary concept word, unique identifier, synonyms]

8. Developing countries/ OR Argentina/ OR Bolivia/ OR Brazil/ OR Colombia/ OR Ecuador/ OR Guyana/ OR Paraguay/ OR Peru/ OR Suriname/ OR Venezuela/ OR exp Latin America/ OR exp Caribbean Region/ OR exp Central America/ OR exp Africa/ OR esp Central Asia/ OR exp Northern Asia/ OR Cambodia/ OR Timor-Leste/ OR Indonesia/ OR Laos/ OR Malaysia/ OR Myanmar/ OR Philippines/ OR Thailand/ OR Vietnan/ OR Bangladesh/ OR Buthan/ OR exp India/ OR Nepal/ OR Pakistan/ OR Sri Lanka/ OR Afghanistan/ OR Iran/ OR Iraq/ OR Jordan/ OR Lebanon/ OR Syria/ OR Turkey/ OR Yemen/ OR exp China/ OR Mongolia/ OR Democratic People´s Republic of Korea/ OR Balkan Peninsula/ OR Albania/ OR Bosnia and Herzegovina/ OR Bulgaria/ OR Kosovo/ OR Macedonia/ OR Moldova/ OR Montenegro/ OR exp Republic of Belarus OR Romania/ OR exp Russia/ OR Serbia/ OR Ukraine/ OR exp Transcaucasia/ OR Comoros/ OR Madagascar/ OR Mauritius/ OR Indonesia/ OR Fiji/ OR Papua New Guinea/ OR Vanuatu/ OR Palau/ OR exp Samoa/ OR Tonga/ OR Cuba/ OR Dominica/ OR Dominican Republic/ OR Grenada/ OR Haiti/ OR Jamaica/ OR St. Lucia/ OR St. Vincent and the Grenadines/

9. 7 {or/and} 8

10. 3 and 6 and 9

11. Limit 10 to (full text and yr="2007 -Current" and (English or Portuguese or Spanish))

Search	Free text words - Portuguese (MeSH terms only available in English)
#1	“atenção primár* saúde” OR “cuidado* primár*” OR “saúde primár*” OR “gestão* saúde” OR “manej* saúde” OR “interven* saúde* primár*” OR “program* preven*” OR “interven* preven*” OR “interven* precoce*” OR “estratégi* saúde primár*” OR “promoç* d* saúde” OR “saúde integral*” OR “saúde* comuni*” OR “saúde* família*” OR “saúde públic*” OR “sistema* saúde*” OR “trabalhador* saúde” OR “agente* saúde” OR “profissiona* saúde” OR “polític* saúde” OR “cuidado* pré-nata*” OR “ambulatór* pré-nata*” OR “saúde básic*” OR “atenç* básic*” OR “centro* saúde” OR “posto* saúde” OR “unidade* saúde”
#2	“violen* parceir*” OR “abus* parceir*” OR “violen* conjug*” OR “abus* conjug*” OR “agress* parceir*” OR “violen* contra* mulher*” OR “mulher* espancada*” OR “violen* namor*” OR “abus* namor*” OR “violen* gênero” OR “abus* gênero”
#3	“país* renda baixa* média*” OR “país* baixa* média* renda*” OR “país* baixa* renda*” OR “país* renda* média” OR “país* subdesenvolv*” OR “país* em desenvolvimento” OR “país* terceiro mundo” OR “naç* renda baixa* média*” OR “naç* terceiro mundo” OR “naç* subdesenvolv*” OR “naç* menos desenvolvid*” OR “naç* baix* desenvolv*” OR “naç* em desenvolvimento” OR “país* menos desenvolvid*” OR “país* emergente*” OR “país* pobre*” OR “naç* pobre*” OR “mundo em desenvolvimento” OR “mundo subdesenvolvido” OR “mundo emergente” OR “naç* emergente* OR “América Latin*” OR "América Central" OR "América do Sul" OR “Carib*” OR "África*" OR "Ásia*" OR "Pacífico*" OR “Oceania” OR "Oriente Médio" OR "Afeganistão" OR "Albânia" OR "Argélia" OR "Samoa Americana" OR "Angola" OR "Argentina" OR "Armênia" OR "Azerbaijão" OR "Bangladesh" OR "Bielorrússia" OR "Belize" OR "Benin" OR "Butão" OR "Bolívia" OR "Bósnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgária" OR “Burkina Faso" OR "Burundi" OR "Cabo Verde" OR "Camboja" OR "Camarões" OR "República Centro-Africana" OR "Chade" OR "China" OR "Colômbia" OR "Comores" OR "Congo, Dem* Rep*" OR "Congo, Rep*" OR "Costa Rica" OR "Costa do Marfim" OR "Cuba" OR "DjiboutI" OR

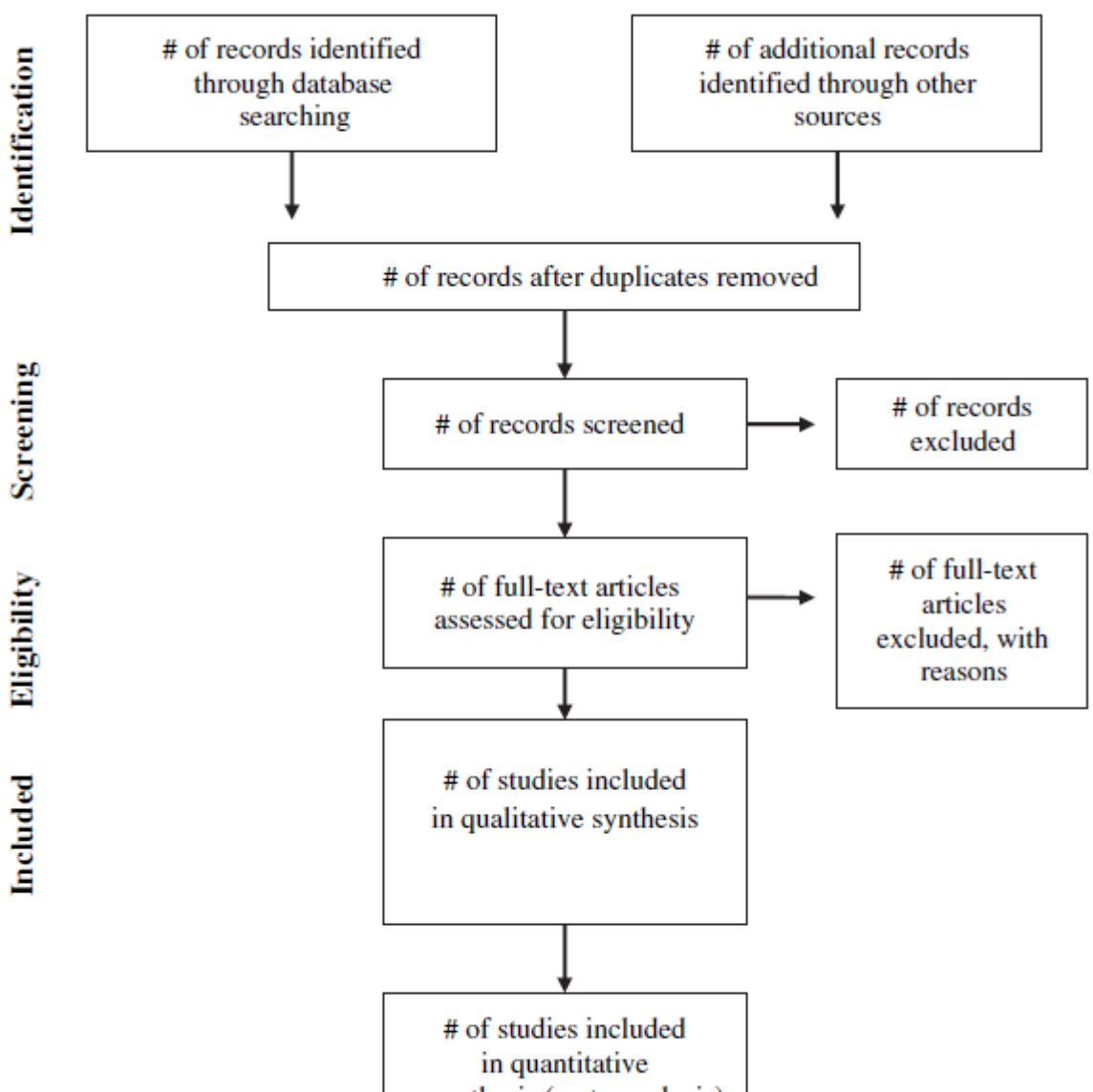
	"Dominica" OR "República Dominicana" OR "Equador" OR "Egito" OR "El Salvador" OR "Guiné Equatorial" OR "Eritreia" OR "Etiópia" OR "Fiji" OR "Gabão" OR "Gâmbia" OR "Geórgia" OR "Gana" OR "Granada" OR "Guatemala" OR "Guiné" OR "Guiné-Bissau" OR "Guiana" OR "Haiti" OR "Honduras" OR "Índia" OR "Indonésia" OR "Irã" OR "Iraque" OR "Jamaica" OR "Jordânia" OR "Cazaquistão" OR "Quênia" OR "Kiribati" OR "Coréia, Rep* Dem*" OR "Coréia do Norte" OR "Kosovo" OR "Quirguistão" OR "Laos" OR "Líbano" OR "Lesoto" OR "Libéria" OR "Líbia" OR "Macedônia" OR "Madagascar" OR "Malawi" OR "Malásia" OR "Maldivas" OR "Mali" OR "Ilhas Marshall" OR "Mauritânia" OR "Maurící*" OR "México" OR "Micronésia" OR "Moldávia" OR "Mongólia" OR "Montenegro" OR "Marrocos" OR "Moçambique" OR "Mianmar" OR "Namíbia" OR "Nepal" OR "Nicarágua" OR Níger " OR "Nigéria" OR "Paquistão" OR "Palau" OR "Panamá" OR "Papua Nova Guiné" OR "Paraguai" OR "Peru" OR "Filipinas" OR "Romênia" OR "Federação Russa" OR "Rússia" OR "Ruanda" OR "Samoa" OR "São Tomé e Príncipe" OR "Senegal" OR "Sérvia" OR "Serra Leoa" OR "Ilhas Salomão" OR "Somália" OR"África do Sul" OR "Sudão do Sul" OR "Sri Lanka" OR "St. Lucia" OR "São. Vincente e Granadinas" OR "Sudão" OR “Suriname" OR "Suazilândia" OR "República Árabe da Síria" OR "Síria" OR "Tajiquistão" OR "Tanzânia" OR "Tailândia" OR "Timor-Leste" OR "Timor* Leste" OR "Togo" OR "Tonga" OR "Tunísia" OR "Turquia" OR "Turcomenistão" OR "Tuvalu" OR "Uganda" OR "Ucrânia" OR "Uzbequistão" OR "Vanuatu" OR "Venezuela" OR "Vietn*" OR "Cisjordânia” OR “Gaza" OR “Palestina” OR "Iêmen" OR "Zâmbia" OR "Zimbábue"

Search	Free text words - Spanish (MeSH terms only available in English)
#1	“atenci* primar* salud” OR “atenci* primar*” OR “cuidado* primar*” OR “salud primar*” OR “gestion* salud” OR “manej* salud” OR “interven* primar* salud*” OR “program* OR interven*” OR “interven* tempran*” OR “estrateg* salud primar*” OR “promoc* salud” OR “salud integral*” OR “salud* comuni*” OR “salud* famili*” OR “salud public*” OR “sistema* salud” OR “trabajad* salud” OR “agente* salud” OR “profession* salud” OR “politic* salud” OR “cuidado prenatal*” OR “clínica* prenatal*” OR “salud basic*” OR “atenci* basic*” OR “primer nivel de atención” OR “centro* de salud” OR “puesto* de salud” OR “posta* médica*”
#2	“violen* pareja*” OR “abuso* pareja*” OR “violencia conyug*” OR “abuso conyug*” OR “daño* pareja*” OR “violen* contra la* mujer*” OR “abus* contra la* mujer*” OR “mujer* golpeada*” OR “mujer* maltratada*” OR “violen* contra la* enamora*” OR “abus* contra la* enamora*” OR “violencia de género” OR “abuso de género” OR “violencia de* compañer* íntim*” OR “mujer* violentada*”
#3	“país* con ingreso mediano* bajo*” OR “país* con ingreso bajo* OR “país* subdesarrollado*” OR “país* en desarrollo*” OR “país* tercer mundo” OR “nacion* con ingreso mediano* bajo*” OR “nacion* del tercer mundo” OR “nacion* subdesarrollada*” OR “nacion* menos desarroll*” OR “nacion* con bajo desarroll*” OR “nacion* en desarrollo” OR “país* menos desaroll*” OR “país* menos desarroll*” OR “país* emergente*” OR “nacion* emergente*” OR “mundo emergente” OR “mundo subdesarrollado” OR” país* en vías de desarrollo” OR “Caribe” OR "América Latina*” OR "América del Sur" OR “Sudamérica” "África*" OR "Asia*" OR "Pacífico" OR "Oriente Medio" OR "Afganistán" OR "Albania" OR "Argelia" OR "Angola" OR "Argentina" OR “Samoa Americana” OR "Armenia" OR "Azerbaiyán" OR “Bangladesh” OR "Bielorrusia" OR "Belice" OR "Benin” OR "Bolivia" OR "Bosnia* Herzegovina" OR "Botswana" OR "Brasil" OR "Bulgaria" OR "Burkina Faso" OR "Burundi" OR “Bhutan”

	OR "Cabo Verde" OR "Camboya" OR "Camerún" OR "República Centroafricana" OR"Chad" OR "China" OR "Costa Rica" OR "Costa de Marfil" OR "Cuba" OR "Djibouti" OR "Dominica" OR "Costa Rica" OR "Colombia" OR "Comoras" OR "Congo, Rep*" OR "República Dominicana" OR "Ecuador" OR "Egipto" OR "El Salvador" OR "Guinea Ecuatorial" OR "Eritrea" OR "Etiopía" OR "Fiji" OR "Gabón" OR "Georgia" OR "Gambia" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guinea-Bissau" OR "Guyana" OR "Haití" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Irak" OR "Jamaica" OR "Jordania" OR "Kazajstán" OR "Kenia" OR "Kiribati" OR "Corea, República Democrática" OR "Corea del Norte" OR "Kosovo" OR "Laos" OR "Líbano" OR "Lesotho" OR "Liberia" OR "Libia" OR "Macedonia" OR "Madagascar" OR "Malawi" OR "Malasia" OR "Maldivas" OR "Mali" OR "Islas Marshall" OR "Mauritania" OR "Mauríci*" OR "México" OR "Micronesia" OR "Moldavia" OR "Mongolia" OR "Montenegro" OR "Marruecos" OR "Mozambique" OR "Myanmar" OR "Namibia" OR "Nepal" OR "Nicaragua" OR "Níger" OR "Nigeria" OR "Pakistán" OR "Palau" OR "Panamá" OR "Papúa Nueva Guinea" OR "Paraguay" OR "Perú" OR "Filipinas" OR "Rumania" OR "Rusia" OR "Rwanda" OR "Samoa" OR "Santo Tomé y Príncipe" OR "Senegal" OR "Serbia" OR "Sierra Leona" OR "Somalia" OR "Sudáfrica" OR "Sudán del Sur" OR "Sri Lanka" OR "St. Lucia" OR "Siria" OR "Tayikistán" OR "Tanzania" OR "Tailandia" OR "Timor Oriental" OR "República Democrática del Congo" OR "Tonga" OR "Túnez" OR "Turquía" OR "Turkmenistán" OR "Tuvalu" OR "Uganda" OR "Ucrania" OR "Uzbekistán" OR "Vanuatu" OR "Venezuela" OR "Vietnam" OR "Cisjordania*" OR "Gaza" OR "Palestina" OR "Yemen" OR "Zambia" OR "Zimbabwe"

This search strategy can be adapted and modified according to each electronic database.

Appendix 3 -PRISMA Flow Diagram: flow of information through different phases of a systematic review



Source: Moher D, Liberati A, Tetzlaff J, et al. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med 2009;6:e1000097 doi:10.1371/journal.pmed.1000097 [published Online: 21 July 2009].

Appendix 4 - Data Items

1. General Information and characteristics of the studies

a. Author´s name
b. Journal
c. Year of publication
d. Country of the intervention
e. Context (urban/rural)
f. Type of service/setting
g. Participants (e.g. workers, users - victims, family members, perpetrators)

2. Methodology

a. Study design
b. Type of intervention
c. Sample/number of participants
d. Year(s) when intervention was conducted
e. Data collection
f. Measures
g. Analysis
h. Ethics clearance

3. Impacts and **outcomes of the intervention for survivors:**

a. IPV rates
b. health (e.g. physical, mental)
c. safety (e.g. safety plans)
d. wellbeing (e.g. quality of life)
e. children (e.g. children´s health and wellbeing)
f. Other Impacts and outcomes (if described)
g. Barriers and facilitators for survivors (if investigated)

4. Impacts and **outcomes of the intervention for PHC workers' practices:**

a. Types of workers (e.g. nurses, community health workers, receptionists)
b. Worker's' role in the intervention
c. Measures of impacts and outcomes concerned to workers
d. Barriers and facilitators for workers (if described)

5. Role of the PHC services and public health systems to improve survivors' healthcare:

a. Measures of impacts and outcomes of the intervention for services/systems
b. Impacts and outcomes of the intervention for policies and organizational structure
c. Articulation with other levels of care in the healthcare system (e.g. hospital, emergency, etc.)
d. Articulation with other sectors beyond public health (e.g. police, justice, housing, etc.)
e. Costs
f. Sustainability
g. Barriers and facilitators for services/systems (if described)

6. Other relevant information