


# BMJ Open Development and evaluation of a training programme on asset-based community development aimed at general practice trainees: protocol for a mixed-method multilevel and multicentric action research study

Sara Calderón-Larrañaga <sup>1,2</sup>, Blanca Valls-Pérez,<sup>2,3</sup> Adrián Cardo-Miota,<sup>2</sup> Blanca Botello,<sup>2,3</sup> Nieves Lafuente,<sup>3</sup> Mariano Hernán<sup>2</sup>

**To cite:** Calderón-Larrañaga S, Valls-Pérez B, Cardo-Miota A, *et al.* Development and evaluation of a training programme on asset-based community development aimed at general practice trainees: protocol for a mixed-method multilevel and multicentric action research study. *BMJ Open* 2021;**11**:e040043. doi:10.1136/bmjopen-2020-040043

► Prepublication history for this paper is available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2020-040043>).

Received 30 July 2020  
Revised 09 February 2021  
Accepted 15 April 2021



© Author(s) (or their employer(s)) 2021. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

**Correspondence to**  
Dr Mariano Hernán;  
[easp15@gmail.com](mailto:easp15@gmail.com)

## ABSTRACT

**Introduction** Asset-based community development (ABCD) is a strategy aimed at strengthening communities of interest through the identification and enhancement of those protective resources (also called ‘health assets’) that contribute to improve population health. Although primary care is specially well placed to contribute to ABCD by facilitating patients’ access to community health assets, the implementation of ABCD approaches is limited, in part due to training deficiencies amongst general practitioners. In this study, we will develop a training programme on ABCD aimed at general practice trainees and evaluate its implementation and scale-up in Andalusia, Spain. We will also investigate whether the programme may contribute to strengthen the community orientation of the primary care practices involved in the study.

**Methods and analysis** We will undertake a mixed methods, multilevel and multicentric action research study drawing on theoretical frameworks relevant to learning (pedagogy) and community health promotion. The intervention will be implemented and evaluated in eight different study areas over 48 months. It will comprise a classroom-based session and a practical exercise, which will involve general practice trainees producing a map of community health assets relevant to common health conditions. In each study area, we will set up a stakeholder group to guide our study. We will run the intervention sequentially across the eight study areas, and modify and refine it iteratively by incorporating the findings from the evaluation. We will employ qualitative (interviews and focus groups with general practice trainees, primary care workers, members of the teaching units and policymakers) and quantitative methods (self-administered questionnaires with an approximate sample of 157 general practice trainees and 502 primary care workers).

**Ethics and dissemination** Ethics approval from the Andalusian Regional Health Council has been granted (6/2020). It is envisaged that this research will provide relevant, evidence-based guidance on how best to incorporate learning on ABCD into the general practice training curriculum. Findings will be disseminated in an

## Strengths and limitations of this study

- This study will develop and evaluate a training programme on asset-based community development aimed at general practice trainees considering individual, interpersonal, organisational and policy-level dimensions.
- We will draw on robust and explicit theoretical frameworks and combine quantitative and qualitative methods.
- Using a participatory approach, we will iteratively refine and improve the intervention throughout its implementation by incorporating the findings from the evaluation.
- The project does not involve general practice nurse trainees and is confined to one region, but findings may inform future research on the adaptation and applicability of the intervention across disciplines and its transferability to different settings.

ongoing manner and will target the following audiences: (1) general practice trainees, primary care workers and members of the teaching units, (2) policymakers and strategic decision makers and (3) the academic community.

## INTRODUCTION

The social and cultural environment in which people are born, live, work and age influences their health and well-being.<sup>1–3</sup> The analysis of these social and cultural factors has, to date, predominantly focused on individual and community level limiting conditions (health needs, deprivation and so on).<sup>4,5</sup> This approach can be complemented by focusing on the identification and enhancement of those protective factors (also called ‘health assets’) that contribute to maintaining and

improving population health.<sup>6–8</sup> These assets can be social, physical, environmental or human resources, for example, a third sector organisation offering advice on welfare benefits, housing and debt, a community-based physical activity programme, or parks and green spaces where local residents may exercise and socialise.<sup>9</sup>

Primary care (PC) is especially well placed to develop and integrate these two complementary approaches. Accessible, continuous and situated consultations allow health workers to gain knowledge and understanding of both the protective factors (health assets) and vulnerabilities (health needs) of the communities they serve, and how and to what extent they impact on patients' well-being.<sup>10–12</sup> PC providers' knowledge of local needs and assets and their involvement in the local area increase the community orientation of PC services, which is considered a cardinal feature for high-quality service provision.<sup>10</sup> PC workers can also facilitate and strengthen patients' access to existing sources of support within the community, which has been defined in the literature as 'social prescribing'.<sup>13 14</sup>

However, there are increasing barriers to community oriented PC and the development of community-based health promotion initiatives. The decline in continuity of care, the fragmentation of PC services and the increasing workload are some of the identified constraints.<sup>15–19</sup> Lack of training in community health promotion can also influence the attitudes, priorities and motivations of professionals, as well as the quality, rigour and sustainability of community-based interventions.<sup>16–20</sup> According to March *et al*, participation in community-based health promotion activities tends to be almost twice as likely amongst professionals who have received targeted training than amongst those who have not.<sup>16</sup>

Although training in community health promotion is envisaged within the Spanish national General Practice (GP) training programme,<sup>21</sup> current investment of time and resources in these activities is highly heterogeneous and, generally, limited.<sup>22</sup> The development and implementation of an educational programme on asset-based community development (ABCD) could potentially contribute to reduce current training deficiencies and strengthen the community orientation of PC. ABCD exercises could allow GP trainees to identify health assets within the communities and populations they serve and use this knowledge to promote social prescribing amongst their patients.<sup>23 24</sup>

## SETTING AND CONTEXT

This study will be based in Andalusia, an autonomous region in southern Spain. Andalusian PC services offer comprehensive healthcare, free at point of use for registered patients. GP practices are geographically distributed and comprise multidisciplinary teams of doctors, practice nurses, healthcare assistants, administrative staff, social workers and also GP medical and nurse trainees in accredited centres, amongst other professionals.<sup>25</sup> PC Districts

are the administrative entities responsible for the planning and management of all practices within a given locality and respond to the policy guidelines of the Regional Health Council.<sup>26</sup> In 2016, the Regional Health Council published a new policy strategy called '*Renewing Primary Healthcare*'<sup>27</sup> aimed at strengthening Andalusian PC. One of the 'strategic intervention areas' identified in the policy document was the development of community health promotion approaches, such as ABCD and social prescribing.

The GP training programme is organised and supervised by multiprofessional teaching units (MPTUs), which are led by a director and a variable number of health technicians. In Andalusia, there are 11 MPTUs in charge of around 360 GP medical trainees annually. At the start of the training programme, each GP medical trainee is assigned a PC practice, a GP tutor and a MPTU. The training lasts four years, of which approximately half is spent in PC (initial six months and last year and a half) and the other half in secondary care. Training in community health promotion delivered across MPTUs is highly heterogeneous and, generally, scarce.<sup>22</sup>

## AIM, OBJECTIVES AND RESEARCH QUESTIONS

### Aim

To strengthen the community orientation of PC services through the development and evaluation of a training programme in ABCD aimed at GP trainees.

### Objectives

Objective 1: to develop and implement a high-quality and sustainable training programme aimed at GP trainees.

Objective 2: to identify the barriers and facilitators for the implementation and scale-up of the training programme within existing health and educational organisations in Andalusia, Spain.

Objective 3: to evaluate the impact of the training programme on the knowledge and attitudes of GP trainees and the community orientation of the PC practices involved.

### Research questions

- ▶ Is it possible to develop and implement a high-quality and sustainable training programme on ABCD aimed at GP trainees? If so, what are the contexts and mechanisms that may facilitate (or hinder) appropriate implementation and scale-up within existing health and educational organisations?
- ▶ How and to what extent can the implementation of a training programme aimed at GP trainees influence their knowledge and attitudes and the community orientation of the PC practices involved?
- ▶ Is training in ABCD a valid, effective and sufficient strategy to promote and strengthen the community orientation of PC?

## METHODOLOGY

### Theoretical and conceptual framework

Theories are integral to healthcare research and influence how evidence is collected, analysed, understood

and used.<sup>28</sup> There is great diversity of theories around learning (pedagogy) and community health. In this study, and in line with the above specified study objectives and research questions, the following theoretical frameworks will be considered:

#### Theories of social development, experiential learning and critical pedagogy

Social development theory proposed by Lev Vygotsky argues that social interactions do not just influence cognitive development, but crucially precede it. According to Vygotsky, learning is mainly social and cultural, which means that the nature of the interactions (with whom we are learning and discussing, in what social context, with what purpose and frequency) is at least as important as the ‘content’ being taught.<sup>29</sup> Experiential learning theory, on the other hand, emphasises the role of reflection and active experience, and assumes that ‘facts are not fixed and immutable elements of thought, but are constantly formed and re-formed through reflection around concrete experience and feedback’.<sup>30</sup> Critical pedagogies have typically emphasised the transformative power of education, and its commitment to the improvement of social reality.<sup>31</sup> Throughout our study, we will pay especial attention to the social and cultural context within which learning processes occur and provide practical exercises in which to test and reflect on learnt concepts, as a means of promoting new practices that could potentially strengthen the community orientation of PC.

#### Participatory action research theories

Participatory action research approaches have the ability to influence the reality being researched (‘knowledge in action’), while potentially developing knowledge that is both relevant to those directly involved in the research and applicable to a wider audience.<sup>32–33</sup> Far from representing a uniform and static discipline, participatory methodologies comprise varied approaches and applicabilities.<sup>34–35</sup> While acknowledging this plurality of practices, we will focus on those features that best fit the objectives of this project<sup>36</sup>: (a) *flexibility* in the design and implementation of the intervention, which takes definite shape only as the work progresses and is kept continuously under review; (b) *cyclical and iterative* development of the research, where the intervention is refined in the light of evaluation findings; (c) acknowledgement of the *subjective* meanings that those directly involved in the research problem attach to it; (d) commitment to *change* the problem situation for the better in the process of researching it and (e) consideration of the complex and ever-changing nature of the social *context* in which the research is undertaken.

#### Ecological social theories

Ecological social theories recognise individuals as members of multiple systems operating at different interconnected levels (such as, interpersonal, organisational, community and public policy).<sup>37</sup> From this standpoint,

our decisions, actions and interactions with other individuals (micro-level) are framed in specific norms and organisational routines (meso-level), which are, in turn, shaped and constrained by higher-level social contexts (macro-level). In this study, we will adopt a ‘circular’ approach to the construction of social reality<sup>38</sup>: while the established ways of doing things that make up our health and educational structures strongly influence our individual behaviour, they can be challenged, replaced or reproduced differently, creating opportunities for change.<sup>39</sup>

#### Salutogenesis and asset-based models

Salutogenic approaches emphasise those protective factors that allow people to live their lives and react to stressful situations positively.<sup>40</sup> According to Antonovsky, every individual, organisation or social group has ‘positive’ features and resources (‘assets’), which can be used to challenge and even counteract ‘negative’ influences.<sup>41</sup> In this study, we will develop a training programme on ABCD, while identifying potential individual, interpersonal and organisational assets within study areas that may facilitate its implementation.

Table 1 summarises how these four theoretical frameworks relate to specific elements of the study design, research plan, intervention and evaluation.

#### Design

We will undertake a mixed-methods,<sup>42</sup> multilevel<sup>43</sup> and multicentric action research<sup>32</sup> study, comprising three main levels of evaluation: micro, meso and macro.

At micro-level, we will explore the perceptions and experiences of GP trainees paying especial attention to the dynamic interactions between the different actors involved (other GP trainees, GP tutors, MPTUs, PC teams and relevant community stakeholders) during the classroom-based training and the practical exercise. In addition, we will evaluate the impact of the intervention on trainees’ knowledge on ABCD using a self-administered questionnaire (before-and-after design). At meso-level, we will analyse how and to what extent the organisational structures (PC practices and MPTUs) enable or constrain the implementation and development of the intervention. We will also assess the impact of the programme on the community orientation of PC using self-administered questionnaires in practices exposed to the intervention and a sample of practices not exposed. At macro-level, we will investigate the barriers, facilitators and incentives of supporting training on ABCD within the managerial and political sphere. Following an action-research study design, we will implement the training programme sequentially across eight study areas and iteratively refine and modify it by incorporating the findings from the evaluation.

#### Research plan and governance

As illustrated in figure 1, the study will be undertaken over 48 months, from September 2018 to September 2022. The intervention will be implemented and evaluated

**Table 1** Link between the theoretical frameworks and specific elements of the study design, research plan, intervention and evaluation

Theoretical framework	Study characteristics
Social development, experiential learning and critical pedagogy	<ul style="list-style-type: none"> <li>▶ Enhancement of general practice trainees' involvement and participation during the classroom-based training.</li> <li>▶ Critical reflection around concrete experience during the practical exercise.</li> </ul>
Participatory action research	<ul style="list-style-type: none"> <li>▶ Iterative modification of the training programme (intervention) in the light of the evaluation findings.</li> <li>▶ Acknowledgement of the subjective experience of those directly involved in the research during data collection and analysis.</li> </ul>
Ecological social theories	<ul style="list-style-type: none"> <li>▶ Micro-level, meso-level and macro-level data collection.</li> <li>▶ Structuration of findings at individual, relational, organisational and policy levels.</li> </ul>
Salutogenesis and asset-based models	<ul style="list-style-type: none"> <li>▶ Development of an asset-based community health promotion training programme.</li> <li>▶ Identification of individual, interpersonal and organisational 'assets' for successful programme implementation.</li> </ul>

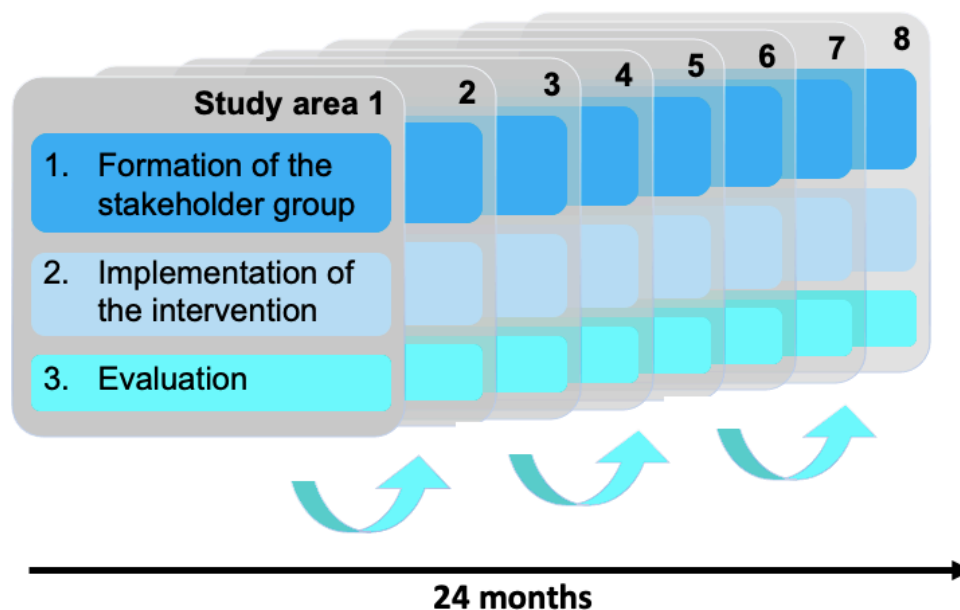
in eight Andalusian MPTUs sequentially. In each study area (MPTU), we will set up a stakeholder advisory group aimed at monitoring the practical relevance of the research and addressing any potential issues that might arise during programme implementation and evaluation. It will include members of the research team, the local MPTU, PC tutors, GP trainee representatives and policy-makers linked to PC Districts and/or the Regional Health Council; and meet on a regular basis as required. The research team (including a professor in public health, a GP trainee, primary healthcare practitioners and a public health maker with relevant academic, teaching and clinical background) will design the preliminary training programme, which will be delivered by three team members (AC-M, BV-P, MH) together with external local collaborators. Data collection and analysis will be carried out in parallel by the research team. Findings will inform

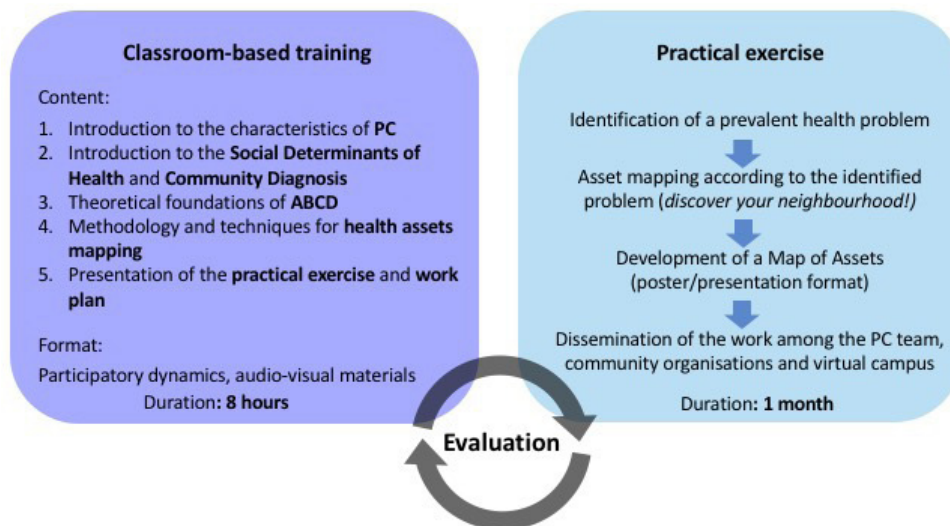
the redesign of the intervention and its implementation and evaluation in the next study area.

### Description of the intervention

The educational intervention will be called “discover your neighbourhood by health-asset mapping”. It will be aimed at first and/or third year GP trainees on rotation in PC at the time of the intervention, and from one of the eight MPTUs under study.

As shown in [figure 2](#), the intervention will comprise a classroom-based theoretical element and a practical exercise in their assigned PC practice. Relevant reading material will be shared online prior to the theoretical training, which will consist of a single-day face-to-face session over approximately 6 hours. The content of the classroom-based training will be divided into five sections: (1) introduction to the characteristics of PC following Starfield's

**Figure 1** Study overview.



**Figure 2** Description of the preliminary educational intervention. ABCD, asset-based community development; PC, primary care.

four cardinal Cs: first Contact accessibility, Coordination, Comprehensiveness and Continuity<sup>10</sup>; (2) introduction to the social determinants of health and community diagnosis using routinely available census and health statistics of the population covered by the trainee's PC practice; (3) theoretical foundations of ABCD approaches; (4) methodology for health assets mapping in a community, using the Andalusian ABCD guideline<sup>44</sup>; (5) presentation of the practical exercise and work plan. Participatory dynamics and techniques will be used throughout the workshop.

The practical exercise will be developed in the GP trainees' PC practices and will consist of a health-asset mapping process relevant to a common health condition. GP trainees will have approximately 1 month to walk around and explore the local area, introduce themselves to local community organisations and identify community health assets relevant to the selected health condition. The exercise will be developed with the help and supervision of the PC team (especially, their assigned tutor and the social worker) and can involve the familiarisation and updating of an existing health-asset map, or the development of a new map where these have not been previously developed. The GP trainee will finally collate and present visually the identified health assets in a poster that will be shared with the PC team, community organisations and the research team. Project timeline will be negotiated with the GP tutor to facilitate compatibility with the rest of ongoing training responsibilities.

The proposed intervention will be modified in the light of the evaluation findings in keeping with the action-research design, leading to the development of a high-quality and sustainable training programme (objective 1).

### Evaluation

The evaluation will involve the collection of qualitative and quantitative data over a similar timeframe and follow a convergent mixed-methods evaluation design.<sup>45 46</sup>

### Qualitative methods

Qualitative methods will enable a better understanding of the contexts and mechanisms by which the training programme 'works' (or not), as well as the identification of relevant barriers and facilitators for its implementation and scale-up (objective 2).<sup>47 48</sup> We will adopt a process-oriented evaluation approach, analysing the emerging data as the programme unfolds.

### Data collection

- ▶ GP trainees: we will organise a minimum of eight focus groups (one per study area) with GP trainees who participated in the programme before or after finishing the practical exercise. All GP trainees attending the course will be invited. Questions will be related to the content, method and format of the classroom-based training, as well as perceived barriers and facilitators for the practical exercise.
- ▶ PC and MPTU workers: we will organise a minimum of eight focus groups (one per study area) with PC workers of the practices involved in the intervention. We will undertake a purposive sampling seeking maximum variety in age, gender, professional profile and previous experience in community-based health promotion activities. We will also conduct a minimum of eight semi-structured interviews (one per study area) with members of the participating MPTUs. Questions will address PC and MPTU workers' attitudes towards ABCD and any perceived barriers, facilitators and recommendations for the implementation and scale-up of the training programme within existing health and educational organisations in Andalusia, Spain.
- ▶ Policymakers: we will conduct semi-structured interviews with approximately eight policymakers linked to the local PC Districts or Regional Health Council and responsible for the implementation of the



'Renewing Primary Healthcare' policy strategy. We will ask each interviewee to nominate another potential interviewee (snowball sampling) until a sufficient sample has been obtained. Questions will investigate the barriers, facilitators and incentives to support our training programme within the managerial and political sphere.

The exact number of focus groups and interviews cannot be specified from the outset as these will be driven by a dynamic and iterative approach. New contacts and interviews might be arranged according to the findings and needs of the research, until data saturation has been reached.<sup>49</sup> Data collection will be carried out by research team members not involved in the training of the interviewees in order to foster critical reflection and discussion. With participants' consent, interviews and focus groups will be audio-recorded and transcribed. Meeting place and time will suit participants' schedule and preferences.

### Data analysis

Transcriptions will be thematically analysed to identify patterns, categories and connections in the data.<sup>50,51</sup> Findings will be related to the resources and conditions for successful implementation and scale-up of the training programme and structured in micro, meso and macro levels (informed by the ecological social theories explained above). Data analysis and interpretation will be reflexively monitored. We will seek negative cases and triangulate within the research group to ensure validity and rigour in the research process.<sup>52,53</sup>

### Quantitative methods

Quantitative methods will allow us to investigate the potential impact of the training programme (intervention) on the knowledge, perceptions and attitudes of GP trainees, as well as on the degree of community orientation of the PC practices involved (objective 3).

### Data collection

- ▶ GP trainees: we will design a self-administered questionnaire to assess GP trainees' (n=157) knowledge, perceptions and attitudes about ABCD and potential modifications after the intervention. The preliminary questionnaire will comprise (1) demographic questions (including age, gender, year of training) and (2) multiple-choice questions about ABCD addressed during the classroom-based training. It will be first sent to a small number of GP trainees and modified in the light of their comments to ensure appropriateness. The final version will be distributed via the virtual campus and completed 1 week before and immediately after the training.
- ▶ PC workers: we will use a second self-administered questionnaire aimed at PC workers in order to investigate the impact of the intervention on their attitudes towards ABCD and any potential modifications in the community orientation of the practices involved. The questionnaire will comprise (1) demographic

questions (including age, gender, professional profile, workplace) and multiple-choice questions aimed at exploring (2) participants' attitudes towards ABCD and (3) the degree of community orientation of their PC practice. The preliminary questionnaire will be based on the 'community-orientation thermometer'<sup>54</sup> developed by the Asturian Health Observatory and modified after piloting it with a small sample of PC workers. The final questionnaire will be distributed by corporate email to PC workers belonging to the practices involved in the intervention (n=251) as well as those working in a sample of practices not involved (control group) (n=251). The control group will consist of all remaining PC practices within the PC District under study. The same questionnaire will be distributed in two occasions: before the intervention and approximately 12 months after.

### Data analysis

Quantitative data will be statistically analysed using descriptive statistics, correlation tests and regression models in order to identify factors that may contribute to explain any potential modifications in GP trainees' and PC workers' responses. Assuming that the proportion of PC workers involved in community-based health promotion activities is 0.5,<sup>16</sup> we anticipate needing 251 PC workers in each group (exposed and non-exposed) to detect a 0.15 difference in the likelihood of being involved in such activities using a type 1 error rate of 0.05 and type 2 error rate of 0.2, and considering a 30% loss to follow-up.

### Synthesis and integration of data

Table 2 summarises the data sources, analysis and synthesis for this multilevel and multicentric evaluation. We will undertake a narrative integration of outcomes writing both qualitative and quantitative findings together on a level-by-level basis ('weaving'<sup>45</sup>) and using visual means ('joint displays'<sup>55</sup>) where appropriate. It is envisaged that the two sources of data will 'expand' insights of the phenomenon by addressing different and complementary aspects of it.<sup>45</sup>

### Ethics and safety

The study has been approved by the ethics committee of the Andalusian Regional Health Council (6/2020). The security, confidentiality and information management will follow the regulations developed by Organic Law 15/1999 of December 13 on data protection.<sup>56</sup> We will request informed consent before completing the questionnaires and conducting the group and individual interviews. We will protect the confidentiality and privacy of participants in focus groups by requesting acceptance of a code of conduct to ensure that personal and private information is not shared or disseminated outside the group.

### Patient and public involvement

The participatory action-research and health services research methods we propose are specifically designed

**Table 2** Overview of data collection, analysis and synthesis

	Qualitative data	Quantitative data
Data collection	<i>Micro-level:</i> eight focus groups with GP trainees <i>Meso-level:</i> eight focus groups with PC workers and eight semi-structured interviews with members of the MPTUs <i>Macro-level:</i> eight semi-structures interviews with policymakers	<i>Micro-level:</i> self-administered questionnaires to GP trainees (n=120) <i>Meso-level:</i> self-administered questionnaires to exposed (n=251) and unexposed (n=251) PC workers
Data analysis	Thematic analysis Iterative process of inductive and deductive coding	Descriptive statistics Correlation tests Regression analysis
Data synthesis	Narrative, multilevel integration of findings using <i>weaving</i> and <i>conceptual joint displays</i>	

GP, general practitioner; MPTUs, multiprofessional teaching units; PC, primary care.

to enable direct involvement of participants. We will use this participatory approach as a continuous research process and identify a broad range of participatory input, including GP trainees, PC workers, members of MPTUs and relevant local and regional policymakers. Additionally, GP trainees will discuss the outputs of their practical exercise with local community stakeholders. We will also create a stakeholder advisory group in each study area to enhance the practical relevance and impact of our research.

### Dissemination plan

Dissemination will be undertaken as a continuous process throughout the research. It is envisaged that the enhanced training programme (objective 1) will constitute a key output. We will develop workshops, presentations and summary documents to make it accessible to potential users. All the teaching materials used and produced throughout the project will also be made available in open online portals to enhance access and dissemination. We plan outputs for the following audiences:

- ▶ For GP trainees, PC workers and MPTUs, we will write a report summarising our research activity and outputs and providing guidance on how best to incorporate training on ABCD into the GP training curriculum.
- ▶ For the general public, including all the local community groups identified in the asset mapping exercise, we will develop lay summaries and user-friendly versions of our findings.
- ▶ For policy makers and strategic decision makers, we will produce succinct overviews of our findings with the objective of informing prevailing policy decisions.
- ▶ For the academic community, we will produce research publications in peer-reviewed journals and conference presentations. Preliminary findings will also be regularly presented and discussed within the research centre (Andalusian School of Public Health).

### DISCUSSION

The development of a training programme on ABCD and its incorporation into the GP training curriculum involve introducing new behaviours, routines and ways of working (an innovation) in extensive health and

educational organisations. Unlike studies that seek to evaluate the impact of a predefined intervention, in our case, the final specific characteristics and the implementation model are yet to be defined. The training model for GP trainees we propose to develop will evolve iteratively in the light of the evaluation findings during the course of our study to ensure it is context sensitive and fit for purpose.

As proposed by Greenhalgh and Papoutsi, ‘theoretically grounded, methodologically pluralistic, flexible and ecologically focused research approaches’ are needed for the evaluation of complex phenomena, such as the one being addressed in this study.<sup>57</sup> We will draw on robust, appropriate and explicit theoretical frameworks (specified above) and combine quantitative and qualitative methods, which will allow us to assess the impact of the intervention, while providing rich information on ‘how’ and ‘in what context’ it might best be introduced.

The lack of inclusion of GP nurse trainees in the training programme and the evaluation process is one of the limitations of the present study. PC practices are made up of multidisciplinary teams, where community-based health promotion approaches tend to be the result of sustained and joint endeavours.<sup>16</sup> Additionally, MPTUs include trainees of both disciplines (nursing and medicine), which facilitates the development of shared educational pathways. In the present study, we will focus on GP medical trainees to increase the feasibility of programme implementation and evaluation in its early development. Our findings could, however, serve to inform future relevant research on the adaptation and applicability of this intervention across disciplines.

### Author affiliations

<sup>1</sup>Centre for Primary Care and Mental Health, Institute of Population Health Sciences, Queen Mary University of London, London, UK

<sup>2</sup>Andalusian School of Public Health, Granada, Spain

<sup>3</sup>Andalusian Health Service, Sevilla, Spain

**Twitter** Mariano Hernán @marianoh

**Acknowledgements** The authors would like to thank the Andalusian School of Public Health for providing the support and means to develop this study, and Professor Jennie Popay for reviewing the manuscript and providing valuable input.

**Contributors** SCL, BV-P, AC-M and MH conceptualised the study. SCL wrote the first draft of this manuscript with significant input from BV-P, AC-M, MH, BB and NL. All authors have read and approved the final manuscript.

**Funding** This work was supported by the Andalusian School of Public Health, Granada.

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the 'Methodology' section for further details.

**Patient consent for publication** Not required.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

#### ORCID iD

Sara Calderón-Larrañaga <http://orcid.org/0000-0003-1369-0250>

#### REFERENCES

- Commission on Social Determinants of Health. *Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the Commission on social determinants of health*. Geneva: World Health Organization, 2013.
- Marmot M. *The health gap: the challenge of an unequal world*. New York: Bloomsbury, 2015.
- Bambra C, Gibson M, Sowden A, et al. Tackling the wider social determinants of health and health inequalities: evidence from systematic reviews. *J Epidemiol Community Health* 2010;64:284–91.
- Marmot M. Social causes of the slowdown in health improvement. *J Epidemiol Community Health* 2018;72:359–60.
- Gkiouleka A, Huijts T, Beckfield J, et al. Understanding the micro and macro politics of health: Inequalities, intersectionality & institutions - A research agenda. *Soc Sci Med* 2018;200:92–8.
- Ziglio E. *Health 2020 priority area four: creating supportive environments and resilient communities. A compendium of inspirational examples*. Copenhagen: World Health Organization, 2018.
- Morgan A, Ziglio E. Revitalising the evidence base for public health: an assets model. *Promot Educ* 2007;2:17–22.
- Cofiño R, Aviñó D, Benedé CB, et al. Health promotion based on assets: how to work with this perspective in local interventions?. *Gac Sanit* 2016;30 Suppl 1:93–8.
- Hernán M, Cubillo-Llanes J. Community action for health. *Ministry of Health. Spanish Government*. 2021.
- Starfield B. *Primary care: balancing health needs, services and technology*. New York: Oxford University Press, 1998.
- Greenhalgh T. *Primary health care: theory and practice*. Blackwell Publishing: Oxford, 2007.
- Tudor Hart J. *A new kind of doctor: the general practitioner's part in the health of the community*. London: The Merlin Press, 1988: 261–313.
- Drinkwater C, Wildman J, Moffatt S. Social prescribing. *BMJ* 2019;364:1285..
- Social Prescribing Network. *Report of the annual social prescribing network conference*. London: University of Westminster, 2016.
- Rubio-Valera M, Pons-Vigués M, Martínez-Andrés M, et al. Barriers and facilitators for the implementation of primary prevention and health promotion activities in primary care: a synthesis through meta-ethnography. *PLoS One* 2014;9:e89554.
- March S, Ripoll J, Jordan Martin M, et al. Factors related to the development of health-promoting community activities in Spanish primary healthcare: two case-control studies. *BMJ Open* 2017;7:e015934.
- Badertscher N, Rossi PO, Rieder A, et al. Attitudes, barriers and facilitators for health promotion in the elderly in primary care. A qualitative focus group study. *Swiss Med Wkly* 2012;142:w13606.
- Walter U, Flick U, Neuber A, et al. Putting prevention into practice: qualitative study of factors that inhibit and promote preventive care by general practitioners, with a focus on elderly patients. *BMC Fam Pract* 2010;11:68.
- Puig Ribera A, McKenna J, Riddoch C. Attitudes and practices of physicians and nurses regarding physical activity promotion in the Catalan primary health-care system. *Eur J Public Health* 2005;15:569–75.
- Guldan GS. Obstacles to community health promotion. *Soc Sci Med* 1996;43:689–95.
- National Commission of Family Medicine Specialty. National general practice training programme. Madrid: Ministry of health and consumer Affairs, 2005. Available: <http://www.mscbs.gob.es/profesionales/formacion/docs/medifamiliar.pdf>
- Valls Pérez B, Calderón Larrañaga S, March Cerdà JC, et al. Training in community health: challenges, threats and opportunities. *SESPAS Report* 2018. *Gac Sanit* 2018;32 Suppl 1:82–5.
- Wright J, Williams R, Wilkinson JR. Development and importance of health needs assessment. *BMJ* 1998;316:1310–3.
- Botello B, Palacio S, García M, et al. Methodology for health assets mapping in a community. *Gac Sanit* 2013;27:180–3.
- Bernal-Delgado E, García-Armeño S, Oliva J. Spain: health system review. Health Systems in Transition, 2018. Available: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/378620/hit-spain-eng.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/378620/hit-spain-eng.pdf?ua=1)
- Andalusian Government Gazzete. Royal legislative decree 197/2007, 2007. Available: [https://www.juntadeandalucia.es/servicioandaluzdesalud/sites/default/files/sinfiles/wsas-media-sas\\_normativa\\_mediafile/2019/rd\\_197\\_2007\\_0.pdf](https://www.juntadeandalucia.es/servicioandaluzdesalud/sites/default/files/sinfiles/wsas-media-sas_normativa_mediafile/2019/rd_197_2007_0.pdf)
- Andalusian Health Council. Renewing Andalusian Primary Healthcare, 2016. Available: [http://www.juntadeandalucia.es/servicioandaluzdesalud/principal/documentosacc.asp?pagina=gr\\_renovacionap](http://www.juntadeandalucia.es/servicioandaluzdesalud/principal/documentosacc.asp?pagina=gr_renovacionap)
- Alderson P. The importance of theories in health care. *BMJ* 1998;317:1007–10.
- Vygotsky LS. *Mind in society: the development of higher mental processes*. Cambridge, MA: Harvard University Press, 1979.
- Kolb DA. The process of experiential learning. In: Thorpe M, Edwards R, Hanson A, eds. *Culture and processes of adult learning*. London: Routledge, 1993: 138–56.
- Freire P. *Education for critical consciousness*. New York: Continuum, 1974.
- Waterman H, Tillen D, Dickson R, et al. Action research: a systematic review and guidance for assessment. *Health Technol Assess* 2001;5:3–157.
- Cornwall A, Jewkes R. What is participatory research? *Soc Sci Med* 1995;41:1667–76.
- Plottu B, Plottu E. Approaches to participation in evaluation. Some conditions for implementation. *Evaluation* 2009;15:343–59.
- Meyer J. Qualitative research in health care. Using qualitative methods in health related action research. *BMJ* 2000;320:178–81.
- Morrison B, Lilford R. How can action research apply to health services? *Qual Health Res* 2001;11:436–49.
- Sallis JF, Owen N, Fisher EB. Ecological models of health behavior. In: Glanz K, Rimer BK, Viswanath K, eds. *Health behavior and health education: theory, research, and practice*. 4 edn. San Francisco: Jossey-Bass, 2008: pp. 465–86.
- Corcuff P. *New sociologies*. Madrid: Alianza Editorial, 1998: p47.
- Giddens A. *The constitution of Society*. Berkeley: University of California Press, 1986.
- Antonovsky A. *Unraveling the mystery of health: how people manage stress and stay well*. San Francisco: Jossey-Bass, 1987.
- Antonovsky A. The salutogenic model as a theory to guide health promotion. *Health Promot Int* 1996;11:11–18.
- Tariq S, Woodman J. Using mixed methods in health research. *JRSM Short Rep* 2013;4:2042533313479197.
- Headley MG, Plano Clark VL. Multilevel mixed methods research designs: advancing a refined definition. *J Mix Methods Res* 2019;1–9.
- Hernán M, Cardo-Miota A, Barranco-Tirado JF. Andalusian guideline on asset based community development. Granada: Andalusian School of Public Health, 2019. Available: <https://www.picuida.es/wp-content/uploads/2018/12/SaludComunitariaActivos.pdf>
- Creswell JW, Plano Clark VL. *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage, 2007.
- Fetters MD, Curry LA, Creswell JW. Achieving integration in mixed methods designs-principles and practices. *Health Serv Res* 2013;48:2134–56.
- Maxwell JA. The value of qualitative inquiry for public policy. *Qual Inq* 2020;26:177–86.
- Murphy E, Dingwall R. *Qualitative methods and health policy research*. New York: Aldine de Gruyter, 2003.
- Green J, Thorogood N. *Qualitative methods for health research*. 2 edn. London: Sage, 2009.
- Silverman D. Interpreting Qualitative Data. In: *A guide to the principles of qualitative research*. 4 edn. London: Sage, 2011.



- 51 Crabtree BF, Miller WL. *Doing qualitative research*. Thousand Oaks, CA: Sage, 2000.
- 52 Calderón C. Assessing the quality of qualitative health research: criteria, process and writing. *Forum: qualitative social research*, 2009. Available: <http://nbn-resolving.de/urn:nbn:de:0114-fqs0902178>
- 53 Morse JM, Barrett M, Mayan M. Verification strategies for establishing reliability and validity in qualitative research. *Int J Qual Methods* 2002;1 <http://ejournals.library.ualberta.ca/index.php/IJQM/article/view/4603/3756>
- 54 Asturian Health Observatory. Community Orientation Thermometer. Oviedo: Asturias Health Council, 2016. Available: <http://goo.gl/forms/dOvnZntNqLw4Bsyl1>
- 55 Plano Clark VL, Sanders K. The use of visual displays in mixed methods research: Strategies for effectively integrating the quantitative and qualitative components of a study. In: McCrudden M, Schaw G, Buckendahl C, eds. *Use of visual displays in research and testing: coding, interpreting, and reporting data*. Charlotte, NC: Information Age Publishing, 2015.
- 56 BOE. Organic Law 15/1999. Personal Data Protection. Madrid: National Government Gazzete, 1999. Available: <https://www.boe.es/boe/dias/1999/12/14/pdfs/A43088-43099.pdf>
- 57 Greenhalgh T, Papoutsi C. Studying complexity in health services research: desperately seeking an overdue paradigm shift. *BMC Med* 2018;16:95.