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Increasing community orientation of primary care health professionals: analysis of the training plan of a community health strategy

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Abstract

Background Improving population health management requires moving beyond an individualistic and biologistic approach in primary care towards a more holistic perspective that considers the multiple elements interacting within a community. To this end, a Community Care Strategy in Aragón (Spain) was implemented, which has been acknowledged as a successful model by the WHO Regional Office for Europe. It guides primary care teams in the development of community care through three courses of action, built upon coordinated initiatives such as its multi-level training plan. This study aims to describe the characteristics of the professionals participating in the training plan, explore their perceived usefulness of the training, and examine its association with changes in daily primary care practice.

Methods A descriptive observational quantitative study was conducted, which analyzed the characteristics of the participating professionals in the training activities from 2017 to 2022. In order to assess the effectiveness and to determine its correlation with the degree of community involvement among professionals in their daily work, an online questionnaire was distributed to all the professionals who had participated in any training activity. The questionnaire also included two open-ended questions to gather qualitative insights into participants' opinions regarding the training.

Results During this period, a total of 1,107 places were offered in 38 continuing training activities. Participation in training activities related to each of the three courses of action of the strategy was significantly associated with their subsequent implementation in practice (OR 2.17 CI95% 1.39–3.4, OR 3.55 CI95% 2.08–6.06, and OR 1.62 CI95% 1.02–2.57). These associations were stronger among professionals who reported an increased community orientation following the training (OR 2.16 CI95% 1.13–4.11, OR 3.00 CI95% 1.55–5.83, and OR 3.70 CI95% 1.80–7.62).

Conclusions The findings suggest that the continuing training plan of the Community Care Strategy is a valuable component in supporting the implementation of the strategy and enhancing the community orientation of primary

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care professionals. This shift aligns with a more community-oriented and salutogenic approach to primary care, consistent with WHO recommendations.

Keywords Health strategies, Professional training, Program evaluation, Community health care, Primary health care

Background

Primary Care Health (PCH), along with cross-sector collaboration and community participation, constitute the three basic cornerstones to tackle disease processes and to achieve effective health systems [1]. When addressing population's health management, the World Health Organization (WHO) advocates a shift from a one-size-fits-all method restricted to clinical needs —as well as passive, reactive and shattered care— to a tailored and holistic approach. This new perspective should take into account the needs of different groups, psychosocial aspects and the social determinants of health, as well as establish a proactive, coordinated care with other sectors and community factors [2]. PHC provides the most inclusive, equitable, cost-efficient and effective approach for improving individuals' physical and mental health, in addition to their social well-being [3, 4]. PHC does not merely attend to individuals, their families and groups; it is also responsible of the community with an orientation towards health determinants [5]. This is referred to as Community Care, which has been part of the services portfolio of the Spanish National Health System since 2006 [6].

Beyond the Spanish context, community-oriented primary care and training initiatives have been promoted internationally as key components of strong PHC systems. Global experiences emphasize the importance of equipping health professionals with competencies related to community engagement, intersectoral collaboration, and population health. For example, international analyses of community health worker programmes highlight the need for structured, context-adapted and continuous training as a cornerstone for effective community-oriented primary healthcare delivery [7]. Similarly, comparative studies conducted in countries such as China, India, Brazil and South Africa underline that primary care professionals require skills beyond clinical practice—including community advocacy, teamwork and system-level thinking—to effectively respond to population health needs [8]. These international initiatives illustrate a growing global consensus on the relevance of training strategies aimed at strengthening the community orientation of primary care.

To accomplish this community mission and approach of PHC, and referring to previous research developed in this area [9, 10], a pioneering strategy was undertaken in Spain for the development of community care within the primary care centers of a public health service. This initiative took place in Aragón, an inland region located in the northeast of Spain, with an area extend similar to that of Denmark, yet with low population density comparable to that of Sweden [11]. This region has a powerful public health system that divides the territory into eight health sectors, each with a primary care directorate. The Community Care Strategy of Primary Care [12], as this initiative is formally designated, is part of the Health Department of the Government of Aragón.

Its implementation has been acknowledged as a successful approach at the national level in professional and scientific forums, as well as internationally in the two recent reports on primary care from the WHO Regional Office for Europe [2, 13]. The Strategy is backed by three courses of action to guide primary care teams in the development of a community orientation care: (1) the creation of a community agenda as a tool to improve the teams' community orientation, (2) the development and assessment of community projects linked to care objectives, and (3) a community approach based on the recommendation of health assets or social prescribing. These courses are supported by coordinated actions such as the training, the setting up of local health networks and the organization of technical-scientific assistance, which is essential for their sustainability [14, 15].

Training is an essential element in engaging professionals in the implementation of strategies or changes within the health system, and is one of the fundamental components in the evolution of community care within primary care [10, 14, 16–18]. This is undoubtedly crucial, as already evidenced by various studies, since having a clear understanding of the scientific and technical team responsible for community care will logically improve professional and managing capabilities [10, 19]. Prior to the implementation of the Community Strategy in our environment, an analysis was conducted which revealed that more than half of the community care activities carried out by the PHC teams did not adhere to a specific theoretical or methodological approach, nor did they involve any sort of assessment or dissemination [9]. Similarly, there was a lack of continuing training in this field, which constituted a significant obstacle as reported by the professionals [9].

To address these shortcomings and effectively establish the Community Care Strategy, a multi-level Training Plan was created with the objective of promoting teamwork, community orientation, and a multidisciplinary and cross-sector approach among all professional categories of Primary Care [12]. An essentially participatory training plan was therefore made, which comprised:

continuing training activities for primary care professionals, sessions for the managerial personnel, workshops with those in charge of community care within the teams, training for trainers, and training for undergraduate and graduate students [12]. Among these actions, the subject of analysis in this particular study was the plan of continuous training activities aimed at all primary care professionals, whose goal is to provide the needed skills and competences that will enable them to offer quality community care.

Methods

Objective

The objective of this paper is to analyze the characteristics of the professionals participating in the training plan, explore their perceived usefulness of the training, and examine its association with changes in daily primary care practice.

Design and participants

A cross-sectional descriptive observational study of the characteristics and impact of the continuing education provided through the Community Care Strategy of Aragón (region of Spain) was proposed. The study analyzes continuing education activities within the Training Plan from 2017 to 2022, both years included. All the primary care professionals having accomplished one or more activities were included in the study. There were no exclusion criteria.

Training plan

The training plan under study comprised the provision training on the three courses of action described above (the community agenda, community care projects and the recommendation of health assets), as well as on group health education, community participation, community health in schools, trainer of trainers, addiction prevention, cultural competence in PHC, health promotion and equity. The training plan was designed to be flexible, with several edits and with both in-person and online training, which responded to regional needs such as geographic spread and to extraordinary circumstances such as COVID-19 pandemic. All of the aforementioned activities were approved by the Commission for Continuing Training of Health Professions of the National Health System, and included a satisfaction survey conducted at the end of the activity. A detailed description with the list of activities is available in Additional file 1.

This plan founded upon the principle of action: concepts and processes are not uniformly explained; rather, professionals are individually advised according to their respective contexts and the actual situation of their primary care team. This training aims to enabling organization and capacity to respond in a consistent, sustained manner to the needs and demands that different contexts and population groups may have. Each professional can enroll in the course they deem most appropriate at any given time.

Table 1 Variables obtained from the questionnaires sent to all professionals after their participation in the training plan

Work variables	Occupation
	Years of work experience
Training variables	Number of performed training activities
	Which training activities were performed
Variables related to community participation after training	Organization of a training session for the primary care team on the acquired knowledge (Yes/No)
	Participation in a Community Care group (Yes/No)
	Participation in the creation of a community agenda (Yes/No)
	Participation on a local health council (Yes/No)
	Participation on local health networks (Yes/No)
	Performance of any project regarding community care (Yes/No)
	Implementation of assets recommendation processes (Yes/No)
	Performance of formal assets recommendation (Yes/No)
Perception of whether the training led to an increase in community orientation in their daily work (Yes/No)	

Measures

A descriptive observational quantitative study was conducted, which analyzed the characteristics of the participating professionals in the training activities according to the following variables: sex, occupation, health care sector during the training, and performed activity or activities. These data were obtained by means of the register of the Strategy's training plan.

In order to assess the effectiveness and to determine its correlation with the degree of community involvement among professionals in their daily work, an online questionnaire was distributed to all the professionals who had participated in any training activity. The questionnaire was developed ad hoc for this study with the aim of collecting descriptive information on participation in community-oriented activities and perceived changes in daily clinical practice. It did not include psychometric scales or diagnostic measures and was therefore not intended as a validated measurement instrument. This questionnaire, translated into English, is available in Additional file 2. Through this questionnaire, information was collected on the variables described in Table 1. The main objective was to ascertain whether the training activity had been followed by community interventions in the workplace and an increase in the community orientation of the professionals. It was distributed in June 2023, and three reminders were sent to achieve an optimal participation.

Furthermore, two open-ended questions were included at the conclusion of the questionnaire, with the aim of

facilitating a qualitative analysis of the professionals' opinion regarding the training: (1) What they thought about the elements provided by training, and how they had influenced their vision of practice and their own work as members of a primary care team; (2) new training proposals. Two researchers independently conducted an inductive thematic analysis, involving repeated reading of responses, initial coding, and the identification of emergent categories. Discrepancies were discussed and resolved by consensus. The qualitative findings were used to complement and contextualize the quantitative results and are presented descriptively.

Occupations were merged as follows: nursing (primary care nurses, midwives and intern resident nurses), medicine (family physicians, pediatricians and resident interns), social work, administrative department, physiotherapy, oral health (oral hygienists and dentists) and others (auxiliary nursing care technicians, pharmacists, psychologists, occupational therapists, sociologists, laboratory technicians).

Statistical analysis

A univariate descriptive analysis of qualitative variables was carried out using frequencies and percentages. Participation rates were calculated by sex, occupation, and health care sector. For each category, the participation rate was defined as the proportion of professionals who took part in the training activities relative to the total number of professionals working in primary care within the same category, expressed as a percentage. For example, the participation rate by sex was calculated as the number of women who participated in the training activities divided by the total number of women working in primary care, multiplied by 100; similarly, participation by occupation was calculated using the corresponding professional group as the denominator. Data for the denominators were obtained from the Human Resources Department of the Aragonese Health Service (2022).

Bivariate and multivariate analyses were performed to determine the impact of the training program, to analyze whether participation in the training courses is related to subsequent application in clinical practice. The variables included in the quantitative analysis were categorical (nominal) and dichotomous, with yes/no response options (e.g., participation in the training programme, increased community orientation, creation of a community agenda). For the bivariate analysis, the association between two categorical variables was evaluated by means of the chi-square test, complying with the application conditions. For all cases, the results were considered to be statistically significant at $p < 0.05$. In addition, the strength of association was measured by Yule's Q coefficient. Ultimately, a multivariate analysis was performed using binomial logistic regression. The statistical analysis was conducted through the free software Jamovi. The Government of Aragón's survey system (Limesurvey) was used to send the questionnaire.

Results

Since the onset of the training in 2017 until 2022, both years included, a total of 1,107 participants completed 38 activities as part of the continuing training plan for primary care professionals. The description of the proposed activities is showed in Fig. 1, and in Additional file 1 with more details. The activities with the greatest training offer due to their importance for the implementation and

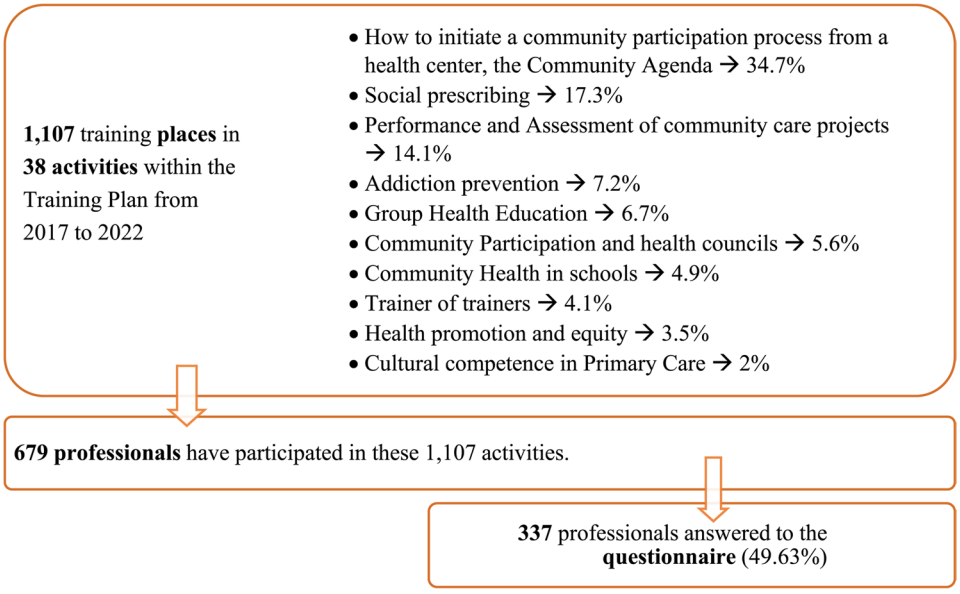

Fig. 1 Description of the performed training activities and the participating professionals

Table 2 Characteristics of participating professionals in the training plan from 2017 to 2022

		Frequencies (percentages)	Participation rate
Number of participating professionals		679 (100%)	19
Sex	Women	611 (90%)	22
	Men	68 (10%)	9
Assigned occupation	Nursing	346 (51%)	
	Primary care nurses	323 (47.6%)	25
	Midwives	9 (1.3%)	13
	Intern Resident Nurse	14 (2.1%)	
	Medicine	172 (25.3%)	
	Family and community physician	148 (21.8%)	11
	Pediatricians	23 (3.4%)	13
	Intern Resident Physician	1 (0.1%)	
	Social work	46 (6.8%)	82
	Administrative Department	48 (7.1%)	11
	Physiotherapy	30 (4.4%)	43
	Oral Health: dentistry and dental hygienists	13 (1.9%)	26
	Others: auxiliary nursing care technicians, pharmacists, psychologists, occupational therapists, sociologists, laboratory technicians	24 (3.5%)	

development of the Strategy, were those directly related to the three courses of action: how to initiate a community involvement process, recommendation of health assets, and implementation and evaluation of community care projects. These activities constituted 66.1% of the total. The overall average score for all activities according to the satisfaction surveys was 8.4 out of 10. The score regarding the usefulness of the acquired knowledge in their subsequent work was 8.7 out of 10.

A total of 679 professionals engaged in at least one activity, with 241 professionals participating in more than one. The majority of participants (90%) were women, with the remaining 10% comprising male participants. PHC professionals participated in very different categories, as can be seen in Table 2. The participation rates according to sex and to different professional occupations are also shown in Table 2. Social work professionals exhibit a notable degree of participation, with a participation rate exceeding 80 participants for every 100 social workers. Physiotherapists are also noteworthy, although with lower participation rate.

The participation rate of professionals according to the health sector in which they worked at the time of the training activity was similar in all sectors (between 17 and 21), except for one sector, which exhibited a notably lower participation rate of 6.

A total of 337 responses (49.63%) were obtained from the questionnaire, delivered to 679 professionals to evaluate the continuing training plan. The sex distribution of the respondents was 89.3% female and 10.7% male. The distribution by most frequent professional occupations was 55.1% nursing, 20.8% medicine and 7.4% social work. Professional experience arranged by years showed that 54.6% of the professionals had more than 20 years of work experience, 25.2% between 11 and 20 years, 11% between 6 and 10 and 8.9% less than 5 years of work experience.

Table 3 Variables related to the community involvement of those professionals participating in any strategy's training activity; frequencies and percentages

		FREQUENCIES	PERCENTAGES
Have you organized/participated in any training sessions for your Primary Care Team (PCT) on what you learned in the EACA training?	Yes	199	59.1%
	No	138	40.9%
Have you participated/Are you in a PCT's Community Care group?	Yes	278	82.5%
	No	59	17.5%
Have you participated/do you participate in the development of one or more Community Agendas?	Yes	200	59.3%
	No	137	40.7%
Have you participated/are you in any Health Council?	Yes	112	33.2%
	No	225	66.8%
Have you participated/do you participate in Local Health Networks?	Yes	118	35.0%
	No	219	65.0%
Have you participated/do you participate in any Community Care Project?	Yes	233	69.1%
	No	104	30.9%
Have sectors other than health care been involved in these projects?	Yes	146	43.3%
	No	191	56.7%
Do you believe that these projects have promoted involvement in community within the Health Center?	Yes	265	78.6%
	No	72	21.4%
Have you participated/do you participate in the implementation of social prescribing processes?	Yes	235	69.7%
	No	102	30.3%
Do you provide formal social prescribing through the digital health record protocol?	Yes	173	51.3%
	No	164	48.7%
Do you believe that participating in the Strategy's training courses has increased community orientation of your daily work?	Yes	291	86.4%
	No	46	13.6%

The answers to the questions to analyze the variables related to professionals' community participation in the day-to-day work after the training are shown in Table 3.

A bivariate analysis was conducted to determine whether the completion of training initiatives aligned with each of the Strategy's courses of action was

associated with their subsequent implementation. The analysis also sought to ascertain whether the perception that the training had enhanced their community orientation in their daily work was associated with the implementation of each of the courses of action. The results are shown in Table 4, with a statistically significant correlation for all cases.

A binomial logistic regression was subsequently conducted (Table 5), which revealed that professionals who underwent specific training on community agendas, as well as those who increased their community orientation in practice after the training, are twice as likely to become involved in the creation of a community agenda compared to those who did not undergo such training or did not perceive this change of perspective. With regard to the second course of action, the professionals who participated in specific training for community care projects, as well as those who perceived an improvement in their community orientation, are three times more likely to participate in one or more community care projects related to care objectives, compared to those who did not receive training or did not perceive a change of perspective. Professionals with specific training in social prescribing (SP) are 1.6 times more likely to engage in formal SP. Finally, professionals who perceived an increase in their community orientation in practice following training are almost four times more likely to perform formal SP relative to those who did not perceive such a change.

Regarding the first open-ended question at the conclusion of the questionnaire —about the opinion on the elements provided by the training, the vision in practice and the work as a member of a primary care team— answers were grouped by the categories showed in Table 6, where examples of the most representative responses are included. In consideration of the identified training need, some activities were proposed on the following topics: education for group health (16% of the answers); assets recommendation (16%); research, dissemination and qualitative methodology (11%); citizens participation (9%); end of life, loneliness and vulnerable population (7%); and the promotion of physical activity (5%).

Discussion

Training activities within the strategic plan of community care were associated with a higher level of perceived community orientation among professionals in their day-to-day work. Furthermore, they are more deeply involved in each of the Strategy's courses of action.

During the study, a total of 1,107 training places were provided, bearing in mind that the training offer drastically decreased during the COVID-19 pandemic.

Table 4 Association between training and the courses of action; bivariate analysis

		Specific training of each course of action: 1. Community Agenda 2. Community Care Projects 3. Social Prescribing		**Increased community orientation in practice after training**		
		Yes	**No**	**Yes**	**No**	**Total**
1. Involvement in the creation of Community Agenda	Yes	119 (68.8%)	81 (49.4%)	181 (62.2%)	19 (41.3%)	200 (59.3%)
	No	54 (31.2%)	83 (50.6%)	110 (37.8%)	27 (58.7%)	137 (40.7%)
	Total	173 (100%)	164 (100%)	291 (100%)	46 (100%)	337 (100%)
		$p < 0.001$ Yule's Q 0.39		P 0.007 Yule's Q 0.40		
2. Participation in one or more Community Care Projects	Yes	119 (83.2%)	114 (58.8%)	211 (72.5%)	22 (47.8%)	233 (69.1%)
	No	24 (16.8%)	80 (41.2%)	80 (27.5%)	24 (52.2%)	104 (30.9%)
	Total	143 (100%)	194 (100%)	291 (100%)	46 (100%)	337 (100%)
		$p < 0.001$ Yule's Q 0.55		$p < 0.001$ Yule's Q 0.48		
3. Performance of formal Social Prescribing	Yes	123 (56.4%)	50 (42%)	162 (55.7%)	11 (23.9%)	173 (51.3%)
	No	95 (43.6%)	69 (58%)	129 (44.3%)	35 (76.1%)	164 (48.7%)
	Total	218 (100%)	119 (100%)	291 (100%)	46 (100%)	337 (100%)
		$p = 0.011$ Yule's Q 0.28		$p < 0.001$ Yule's Q 0.60		

Table 5 Association between training of the different courses of action; logistic regression

	Specific training for each course of action*: 1. Community Agenda 2. Community Care Projects 3. Social Prescribing			Increased community orientation in practice after training*		
	p	OR	CI 95%	*p*	OR	CI 95%
1. Involvement in the creation of Community Agenda*	< 0.001	2.172	1.387-3.400	0.02	2.156	1.131–4.110
2. Participation in one or more Community Care Projects*	< 0.001	3.554	2.084–6.060	0.001	3.002	1.545–5.834
3. Performance of formal Social Prescribing*	0.042	1.618	1.017–2.574	< 0.001	3.701	1.798–7.618

OR, Odds Ratio, *CI:* Confidence Interval

*Reporting categories are "No"

Table 6 Answers to the open-ended question to ascertain the opinion on the elements provided by the training, the vision in practice and the work as a member of a primary care team

Categories	Examples
General Assessment of the training	"I discovered community care a bit more than a year ago, thanks to a Strategy course. To me, it has meant a new way of approaching the world and my profession. I try to involve myself in activities carried out in my community, to deepen into the elements that really matter; in the end, to work as a member of the community."
	"It has been one of the greatest contributions I have received in recent years with an impact on my practice and my health care center."
Acquired knowledge, community health structuring	"It helps systematizing and improving interventions from this community approach at three levels."
	"It has solved many doubts about how to make a regulated recommendation of assets that is already being habitually made orally in the practice."
	"I contributed and collaborated in the development of the community participation in the centers I had worked in, but I had not given it a structure or a name so I could measure and evaluate it, and my participation in the Strategy has enabled me to do so and has helped me to train myself for it."
Change of perspective or outlook	"Understanding that medicine on a daily basis can go beyond the walls of a practice, that it can improve our patients' health in other contexts and from other perspectives."
	"It has opened my mind towards nursing field, there is much more that can be done than a simple practice."
	"It has provided me of a much wider vision of what community care represents. I ask my patients a lot more about health determinants, their contexts and life story. I recommend more activities to be done within the community."
Importance of social prescription	"The provided training has helped us conduct an asset mapping in my center and reactive our health council."
	"I have verified that employing health assets and relate them with associations actually improves patients' quality of life, attending practices less frequently."
Difficulties in the implementation of the acquired knowledge	"Community Care is currently in the hands of very committed staff who often work after their regular shifts."
	"In my opinion, community care is still difficult to carry out, I think there is a need for greater awareness and support from the institutional side. I believe it has potential and is really appealing, but I think that actually building a community care with the involvement of the population requires a lot of work, and that is impossible without institutional support."
	"It has changed my mind, but as I am a temporary worker I have been unable to put the learned things into practice."

Throughout this period, although there were fewer activities, the training plan remained in place, and the previous training provided by the Strategy was described in the approach taken by Primary Care professionals to the situation [20].

The feminization of the Spanish health care sector is undeniable [21]. The proportion of females in health care roles is greater than that of males, not only in terms of employment rates but also in terms of participation in training programs. While no statistically significant discrepancies have been identified, there is a clear rationale for investigating the reasons behind this higher participation of women. This might be attributable to their greater participation in care and quality of life spaces, which in turn form an important part of community networks and therefore of community health care.

Regarding professional occupations of the participants, social work and physiotherapy stand out. One of the key topics from the Strategy's coordinating team in the development of the training plan was the creation of some selection criteria for the participants. In activities where the number of requests was greater than the number of available places, the coordinating team made the selection taking into account the degree of implementation of the Strategy in the primary care teams as well as the equity in relation to the territory (geographical dispersion, difficult access) or professional category. This was possible thanks to a consistent coordinating team, an engaged group of teachers, and the institutional support in terms of resources, accreditation and funding. In detail, and based on the previously observed needs [9, 10, 22], the inclusion of primary care professionals from categories other than family medicine and nursing was favored, such as social work, midwives, physiotherapy and administrative staff. This explains the high participation rate of social work and physiotherapy. However, despite the selection in favor of midwives and administrative staff, there was not such an outstanding participation rate of these occupations. Administrative staff and other professionals, such as orderlies and auxiliary nursing care technicians, are professional categories within primary care that, currently in our region, do not have access to the formal social prescribing protocol for digital health records. This situation means they do not take the course aimed at social prescribing and, therefore, may lead to lower participation overall. The remaining professional categories in primary care in our region can perform social prescribing in their practice.

Regarding the questionnaires analysis, distribution data by sex and occupation are consistent with those of the total number of professionals participating in the Training Plan, thereby confirming the representativeness of the sample obtained. In fact, the achieved coverage is almost half of the professionals. Over half of the participants had been working in the health care system for more than 20 years. This may suggest that, as they have more work experience, they are more likely to have a permanent job position. Per se, this would already be a positive factor for the implementation of the Strategy, and would evidence the importance of job stability for the better development of primary health care and community care [14, 23]. In fact, the training was reported to have changed a trainee's perspective in the practice, yet due to her/his temporary status, the trainee was unable to implement the newly acquired knowledge. Another challenge identified by some professionals in implementing the newly acquired knowledge was the absence of institutional support and the necessity of engaging in community health initiatives outside of regular working hours without financial compensation. The importance of institutional support is well known [2, 8, 23], and the Strategy's coordinating team operated in accordance with this approach, providing targeted training for primary care managers and furnishing them with scientific and technical assistance. Despite the inability to establish a causal relationship, participation rate in training has been observed to be greater among professionals working in fields where primary care directive team has played a more active role in the implementation of the Strategy.

Over half of the professionals indicated that they had organized or participated in a training session with their primary care team on the newly acquired knowledge. It is of the utmost importance that information is disseminated to the rest of professionals in order to facilitate the enhancement of community orientation among primary care teams, as well as the successful implementation of the Strategy. The fact that almost 60% of the professionals attended these sessions suggests that they found the training useful and deemed it sufficiently valuable to share with their colleagues. Conversely, there is considerable scope for improvement regarding the level of participation in local health networks, area health councils, and projects developed by PHC teams involving sectors other than health, with less than half of the professionals responding affirmatively. Local engagement and intersectorality are crucial elements of community health, so it is imperative to enhance training and technical assistance in this domain. Indeed, one of the training needs identified by professionals was related to citizen engagement.

The elaboration of the Community Agenda entails the formation of the team's community care group, a deepen reflection on the basic health area in which the team operates, and the health assessment of that area; this should establish the team's community base, with a reference professional [24]. Trained professionals are twice as likely to participate in the development of a community agenda, which is already a training success. Although there is still good room for improvement in the

percentage of professionals who participated in the preparation of the Agenda, this encourages us to continue working along the same path in order to achieve greater reach.

The community care improvement projects involve a process of reflection and change in the organization of the primary care teams, with the objective of identifying situations susceptible to action in the teamwork area. Such initiatives imply a prioritization of objectives and activities, with the aim of encouraging the participation of the community in the entire process. Community care projects present an opportunity to integrate community care into the health care center's activities in a standardized manner, thereby enhancing intersectorality and community participation in health. More than 80% of the trainees reported participation in the development of a project within their primary care team, suggesting a high level of integration of community care activities among trained professionals. Professionals who had undergone training on the development and evaluation of community care projects are three times more likely to subsequently engage in such projects than professionals who had not participated in the training. This data supports the continuation of the training plan.

With regard to the Strategy's third course of action, the association revealed that the training and implementation of asset recommendations had led to a change in the way of working. It also implies a transformation in the manner in which individuals and groups engage with each other, as well as an approach which prioritizes a salutogenic vision, community participation, equity, and intersectorality. This facilitates the utilization of the resources of the community [12, 25].

Almost 90% of the professionals who responded to the questionnaire indicated that the training had enhanced their community orientation, shifted the practice model towards a more salutogenic vision, and encouraged the use of pharmacological prescriptions, as well as the promotion of self-care and empowerment. These changes align with the principles set forth in the Strategy [12] and the WHO [2]. This shift towards a community perspective, which had already been described as a key factor [25–27], has been significantly associated with the implementation of the Strategy's three courses of action. It has increased the likelihood of involvement between two and four times more than the professionals who did not perceive this outlook change in practice after the training.

Despite the anticipated limitation of a low response rate to the questionnaire, the participation of half of the professionals was achieved, which resulted in the acquisition of a representative sample, thereby becoming a strength of the study. An actual limitation of the study is that it was not possible to analyze the effectiveness of the training activities from a patients' perspective. This is an aspect to be born in mind for future studies, as is already being done, for example, in the analysis of the recommendation of health assets in our region. In addition, the time elapsed between participation in the training activities and completion of the questionnaire varied among respondents, as the survey was administered simultaneously to professionals trained over a five-year period. Due to the anonymous nature of the questionnaire, this interval could not be analyzed, which may have influenced recall and the perceived impact of the training. Although associations were observed between participation in training activities and reported community-oriented practices, causal relationships cannot be established and the findings should be interpreted with caution. The influence of unmeasured confounding factors, such as prior motivation or the mentioned recall bias, cannot be ruled out. In order to facilitate questionnaire completion, it was decided to use simple checklist-type questions and include only two open-ended questions at the end to allow for the professionals' narratives. A more in-depth qualitative analysis would enrich the results presented.

Conclusions

The findings of this study suggest that the continuing training plan of the Community Care Strategy is a valuable component in supporting the implementation of the strategy and enhancing the community orientation of primary care professionals. This shift reflects progress towards a more community-oriented model of primary healthcare, moving away from predominantly individualistic or directive approaches, and towards a salutogenic perspective that considers individuals within their social and community contexts, in line with recommendations from the WHO.

While further efforts are required to strengthen training related to citizen participation and intersectoral collaboration, the training plan appears to play a significant role in implementing community care, promoting its continuity and sustainability. The training plan is innovative and continues to evolve, expanding its scope and implementing relevant improvements to positively impact the health and well-being of the community.

Abbreviations

PHC	Primary Health Care
WHO	World Health Organization
SP	Social Prescribing

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12875-026-03198-5.

Supplementary Material 1. Activities of the training plan. This additional file contains the list and description of the continuing education activities given in the training plan of the Aragon Community Health Strategy from 2017 to 2022.

Supplementary Material 2. Evaluation questionnaire for the Aragon Community Health Strategy training plan. This additional file contains the questionnaire sent to the professionals participating in the training plan to evaluate its effectiveness.

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Authors' contributions
MD-G, MLL-A, NE-M, BV-U, BO-B, RM-B, EM-P, and CBB-A contributed to the study conception and design. Material preparation and data collection were performed by MLL-A, NE-M, and BV-U. Analysis was performed by BO-B and MD-G. The first draft of the manuscript was written by MD-G and CBB-A and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Data availability
The datasets analysed during the current study are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate
The database of professionals who have participated in the training plan of the Strategy depends on the Directorate General of Health Care and the coordinating group of the Strategy. Some people from the research team of this project are part of these institutions and were the ones who pseudonymised the data for the work by the rest of the team. The questionnaires were completed anonymously to guarantee the privacy of the participants, avoiding the need to receive informed consent from each one of them. This project was analysed and approved by the Clinical Research Ethics Committee of Aragon (CEICA) (PI23/280).

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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