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Knowledge, attitudes, and practice of primary care professionals regarding community activities: a descriptive study

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Abstract

Background: Promoting health via a community approach is one of the most effective strategies for reducing the current incidence of chronic diseases. Primary care (PC), through the implementation of community activities (CA), has the potential to achieve this goal. Yet the implementation of CA at health centers is not standardized and is often thanks only to the voluntariness of health professionals.

Objective: To ascertain the knowledge, attitudes, and practices of PC professionals regarding the implementation of CA.

Methods: We carried out a cross-sectional study by circulating a self-administered online questionnaire on CA, across the period December 2022 through June 2023 in Galicia (Spain). All health professionals working in the Galician Health Service PC setting were invited to participate.

Results: A total of 521 health professionals participated in the study. They included all types of PC health professionals (physicians, general and specialist nurses -midwives, pediatrics, family and community, mental health- and social workers), including residents in training. Only 14.8% and 12.5% of professionals correctly identified CAs and social prescription (SPr) interventions, respectively. Furthermore, 93.9% recognized that the development of CA in health centers was deficient. Despite this, 76.5% showed a good attitude toward participation in CA.

Conclusions: PC professionals find it difficult to identify CA and SPr interventions. Therefore, it is necessary to improve the training of these professionals in the implementation of CA with a view to enhancing population health, reducing the incidence of chronic diseases, and helping lessen the healthcare burden of the health system.

Keywords: attitude; community activities; healthy lifestyle; health promotion; knowledge; primary health care

Introduction

Unhealthy lifestyles and the increase in life expectancy contribute to the rise in chronic diseases, such as cardiovascular, oncologic, and respiratory diseases, and diabetes [1]. These diseases are related to 74% of total deaths worldwide [2] and are the leading cause of disability-adjusted life years [3]. Furthermore, they generate a high use of health resources, which is a top-priority concern for health authorities around the world [4].

Health promotion from the community setting is proposed as constituting one of the most effective approaches for improving population health and reversing the growing incidence of chronic diseases [5–7]. In terms of healthcare levels, primary care (PC) has the potential to achieve this goal, given its proximity to the community and its function as a gateway to the health system. Moreover, this healthcare level acts as an axis and pivotal point between health professionals, families, and community agents, thereby rendering it the sphere of reference for carrying out health promotion actions that empower the population through the implementation of community activities (CA) [8].

CA are defined as "all those intervention and participation activities that are carried out with groups that have common characteristics, needs or interests, and are aimed at promoting health, increasing quality of life and social well-being, enhancing the capacity of individuals and groups to address their own problems, demands or needs" [9]. CA not only address health needs but also take into account the social determinants that exert an influence on the community [10, 11], and involve the population in its own self-care process. Previous studies suggest that CA are effective for improving different aspects of the health of participants, including glycemic

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Key messages

- Professionals' knowledge of community activities (CA) in primary care is low.
- Implementation of CA at health centers is insufficient.
- Primary care professionals committed to the development of CA.

control of diabetes patients, sedentarism, dietary habits, cognitive performance or mental health, participants' quality of life, and self-esteem, among other things [12]. In addition, by introducing actions such as social prescribing (SPr), in which PC health professionals offer patients non-clinical resources (community assets) to improve bio-psychosocial aspects, without resorting to drug use, has yielded a range of health benefits [13]. Despite the abovementioned evidence, and the recommendations of international organizations [14], the implementation of CA at health centers is scarce, is not standardized, and in many cases is thanks only to the voluntariness of health professionals [15].

Given the potential benefit of CA in the preventive and therapeutic approach to chronic diseases in the community, it is essential that PC professionals are trained to carry out these types of activities. The aim of this study was thus to ascertain PC professionals' knowledge, attitudes, and practice with regard to the implementation of CA.

Methods

Study design

We carried out a descriptive cross-sectional study.

Study setting and participants

The study was conducted in public primary health centers of the Galician Autonomous Region, situated in the north of Spain. In Galicia, the public health system (SERGAS -Galician Health Service-) is the one most used by the population, with citizens showing minimal preference for private health providers [16]. SERGAS is structured in two healthcare levels, i.e. PC and specialized care, being the health care articulated around PC through its 463 health centers [17].

All health professionals (physicians, general nurses, specialist nurses [midwives, pediatrics, family and community, mental health], health professionals in specialized health training [Internal Medical Resident, Internal Nurse Resident], and social workers) of full legal age and of any gender who performed their healthcare duties in the SERGAS PC setting were invited to participate in the study. In terms of sample size at the date of the study, the study population comprised 5427 health professionals [18].

Data collection

The data were collected by means of a self-administered online questionnaire. This was an anonymous questionnaire that took 10 minutes to read and complete. The link to the questionnaire was distributed via official e-mails from SERGAS PC professionals and messaging networks. It remained active from December 2022 through June 2023. To achieve the highest response rate, three reminders were sent out in February, April, and June during the period in which the questionnaire was available for completion. Data collection ended when 10 consecutive days had elapsed without new answers to the questionnaire being obtained.

Questionnaire

The questionnaire was drawn up by researchers, based on a review of the scientific literature [19–21]. To evaluate the clarity and comprehensibility of the items, a pilot study was conducted with 10 participants who did not form part of the main study. Since the results of the pilot test indicated good comprehension of all questions, only minimal changes were made after the test.

The questionnaire was made up of 34 compulsory questions distributed into 4 sections (Supplementary Material 1). Based on the KAP (knowledge, attitude, practice) explanatory model for health behavior [22], we assessed: (i) knowledge of and about CA, (ii) attitudes to the implementation of CA, and (iii) practice with CA. A fourth socio-demographic and occupational section was also included. All the sections included closed questions, with the single exception of attitudes which included questions scored on a Likert scale with 5 response options (ranging from 1 = strongly disagree to 5 = strongly agree).

Data analysis

Maintaining the expected frequency of all the variables at 50%, the desired sample size using a 95% confidence interval was 436. When a non-response or low completion rate of 15% was taken into account; however, the final expected sample size was estimated to be 502 health professionals.

The results were expressed as frequency and percentage distribution in the case of categorical variables, and as mean, median, deviation, and interquartile range in the case of quantitative variables. Normality was tested using numerical tests (asymmetry coefficient; kurtosis; the relation between mean, median, and mode; Kolmogorov–Smirnov test) and graphs (Q–Q graph).

Categorical variables were analyzed using the chi-square test. All statistical analyses were performed using the IBM SPSS Statistics (version 27) software program, with 0.05 set as the significance level.

Ethical considerations

The study protocol was approved by the Santiago-Lugo Research Ethics Committee (2022/277) on 20 July 2022. All participants were informed about the designated objectives and purposes of the study, voluntariness when it came to answering the questionnaire, and the identity of the researchers in charge of the study. Data confidentiality was guaranteed in accordance with the Helsinki Declaration and Spanish laws.

Results

Description of sample (Q29-34)

A total of 521 SERGAS PC professionals participated in the study. The response rate was 9.6%. Table 1 shows the sociodemographic and occupational characteristics. The sample consisted mainly of women (82.9%), mean age of 44.7 years. Most of the participants were general nurses (39%), primary

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Table 1. Main sociodemographic and occupational characteristics of primary care professionals (n = 521) belonging to the Galician health service.

Item	n = 521
Age (years), M (SD) and Med (IQR)	44.67 (12.8) 46 (33–55)
Experience in Primary Health Care (years), M (SD), and Med (IQR)	10.95 (11.7) 5 (2–17)
Sex, *n* (%)	
Female	432 (82.9)
Male	89 (17.1)
Profesion, *n* (%)	
Resident Nurse Intern	28 (5.4)
General Nurse	203 (39.0)
Family and Community Nurse Specialist	50 (9.6)
Paediatric Nurse Specialist	11 (2.1)
Obstetric-Gynaecological Nurse Specialist (Midwifery)	19 (3.6)
Mental Health Nurse Specialist	1 (0.2)
Primary Care Physician	112 (21.5)
Resident Medical Intern	38 (7.3)
Primary Care Physician	11 (2.1)
Other	48 (9.2)
Health Areas, *n* (%)	
Coruña y Cee	54 (10.4)
Ferrol	55 (10.6)
Lugo, A Mariña y Monforte de Lemos	131 (25.1)
Ourense, Verín y O Barco de Valdeorras	23 (4.4)
Pontevedra y O Salnés	43 (8.3)
Santiago de Compostela y Barbanza	205 (39.3)
Vigo	8 (1.5)
Other	2 (0.4)
Place of Work, *n* (%)	
Rural Area	182 (34.9)
Urban Area	244 (46.8)
DK/NO	95 (18.2)

M, mean; SD, standard deviation; Med, Median; IQR, interquartile range; DK/NO, do not know/no opinion.

care physicians (21.5%), and specialist Family and Community nurses (9.6%), with a mean PC experience of 10.9 years.

Knowledge of CA (Q1-Q9)

Table 2 and Supplementary Table S1 (Supplementary Material 2) show the data relating to health professionals' knowledge about CA. Most of the participants (76.4%) knew the definition of CA (Q3), were aware of the positive health impact of these interventions (80%) (Q4), and could identify the ideal sites for implementing them (72.6%) (Q5). Furthermore, while more than half (53.9%) knew that CA were not the same as health promotion activities (Q6), only 14.8% were able to correctly identify the proposed example of CA (Q2), and under one third (32.6%) of those surveyed reported knowing what social prescribing (SPr) entailed (Q7); of these, only 12.5% correctly identified the example of SPr cited (Q8). Likewise, less than one third of those surveyed (30.7%) reported knowing the available health assets in their work area (Q9).

Significant differences were found according to the training in CA and the profession received during the previous 4 years (Table 2). Specifically, health professionals who had received CA training in the preceding 4 years displayed better knowledge of CA than those who had not received such training (P < .001), except in terms of the ability to identify an example of CA (Q2), for which no significant differences were found. With respect to professional activity, Family and Community Nursing was the profession with the best knowledge of CA (P = .001), though once again no significant differences were found between the different professional groups when it came to identifying a concrete example of CA (Q2).

Attitudes toward CA (Q10-Q20)

Table 3 and Supplementary Table S2 (Supplementary Material 2) show the data relating to participants' attitudes toward the implementation of CA. Most of the participants were receptive to participating in CA proposed by their fellow team members (82.3%) (Q15) or the department management (70.8%) (Q16). Similarly, over 90% of participants considered that CA could improve the approach to chronic diseases such as hypertension, depression, and obesity (Q17). In addition, they felt that the effectiveness of such interventions had to be audited (91.7%) (Q13), and suggested that satisfaction surveys be performed (91.3%) (Q14) as an appropriate means of assessment.

A total of 83.5% of participants considered PC to be the healthcare setting of reference for carrying out CA (Q11), though around a quarter of the sample (25.4%) felt that training was needed to ensure successful implementation (Q12). Moreover, close to 70% believed that the PC-based community approach was not sufficiently developed (Q10) and was instead dependent on the voluntariness of health professionals (Q19). In this respect, the great majority (93.5%) felt that the dissemination of CA had to be boosted to highlight their relevance and foster citizen participation (Q20). Similarly, the majority (84.5%) viewed the figure of a professional contact point at health centers as a tool that could facilitate the standardization of such interventions (Q18).

Significant differences were found by reference to the training in CA and the profession received during the previous 4 years (Table 3). Health professionals who had undergone CA training displayed a more positive attitude toward CA, with significant differences being found for all items, except the potential usefulness of satisfaction surveys as an assessment tool (P = .086) (Q14) and the utility of implementing CA for the purpose of addressing chronic diseases (P = 0.101) (Q17). In terms of professional profiles, it should be noted that specialist nurses displayed the most positive attitudes toward CA, not only because they felt that they possessed the necessary training for conducting CA (Q12) but also because of their greater willingness to participate in the implementation of such activities (over 90%) (Q15 and Q16).

Practice related with CA implementation (Q21-Q28)

Table 4 and Supplementary Table S3 (Supplementary Material 2) show the data relating to health professionals' practice in relation with CA. Most of those surveyed

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Table 2. Knowledge about CA of primary care professionals (n = 521) belonging to the Galician health service. Only the correct answers are shown. Complete information for all questions and answer options can be found in Supplementary Material 2. The answers were compared according to the training received and the professional category. Statistical significance (P < .05) was determined by chi-square test.

Knowledge of CA	Total *N* = 521; n (%)	Training received on CA in the last 4 years			Professional category										
		Yes	No	*P* value	GN	PCP	RM	OGNS	FCNS	PNS	MHNS	RNI	SW	Other	*P* value
Q1. General knowledge of CA															
a. Yes	433 (83.1)	119 (98.3)	314 (78.5)	<.001	154 (75.9)	98 (87.5)	32 (84.2)	19 (100)	50 (100)	8 (72.7)	1 (100)	26 (92.9)	9 (81.8)	36 (75.0)	.001
[a]**Q2. Correct identification of CA**															
c. Group sessions on healthy eating, requested by overweight residents of the neighborhood, …	397 (76.2)	23 (19)	54 (13.5)	.135	29 (14.3)	22 (19.6)	5 (13.2)	3 (15.8)	8 (16.0)	1 (9.1)	0 (0.0)	2 (7.1)	2 (18.2)	5 (10.4)	.845
Q3. Correct definition of CA															
b. That activity of intervention and participation that is carried out with groups that present common characteristics, needs …	398 (76.4)	116 (95.9)	282 (70.5)	<.001	141 (69.5)	89 (79.5)	31 (81.6)	16 (84.2)	49 (98.0)	7 (63.6)	1 (100)	24 (85.7)	8 (72.7)	32 (66.7)	<.001
Q4. CA can have a positive impact on participants' health															
a. Yes	417 (80)	119 (98.3)	298 (74.5)	<.001	144 (70.9)	96 (85.7)	32 (84.2)	19 (100)	50 (100)	8 (72.7)	1 (100)	25 (89.3)	9 (81.8)	33 (68.8)	.002
[b]**Q5. Place where a CA could be carried out:**															
a. The school	412 (79.1)	111 (91.7)	267 (66.8)	<.001	130 (64.0)	89 (79.5)	29 (76.3)	16 (84.2)	46 (92.0)	8 (72.7)	1 (100)	22 (78.6)	9 (81.8)	28 (58.3)	.001
b. A socio-cultural center for the elderly	415 (79.7)														
c. A health center	389 (74.7)														
Q6. CA and "Health Promotion Activity" are synonymous?															
b. No	281 (53.9)	90 (74.4)	191 (47.8)	<.001	90 (40.3)	66 (58.9)	19 (50.0)	14 (73.7)	40 (80.0)	8 (72.7)	1 (100)	14 (50.0)	8 (72.7)	21 (43.8)	.001
Q7. General knowledge of SPr															
a. Yes	170 (32.6)	69 (57)	101 (25.3)	<.001	51 (25.1)	41 (36.6)	11 (28.9)	6 (31.6)	29 (58.0)	1 (9.1)	0 (0.0)	13 (46.4)	6 (54.5)	12 (25.0)	<.001

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Table 2. Continued

Knowledge of CA	Total N = 521; n (%)	Training received on CA in the last 4 years			Professional category										
		Yes	No	P value	GN	PCP	RM	OGNS	FCNS	PNS	MHNS	RNI	SW	Other	P value
[c]Q8. Correct identification of SPr:															
a. Overweight patient (BMI 28) who attends the nursing consultation to lose weight, and is referred to weekly sessions …	147 (28.2)	33 (27.3)	32 (8.0)	<.001	15 (7.4)	18 (16.1)	3 (7.9)	1 (5.3)	16 (32)	0 (0.0)	0 (0.0)	7 (25)	2 (18)	3 (6.3)	<.001
Q9. General knowledge of community assets available in the basic health area:															
a. Yes	160 (30.7)	62 (51.2)	98 (24.5)	<.001	56 (27.6)	32 (28.6)	10 (26.3)	6 (31.6)	22 (44.0)	4 (36.4)	1 (100)	13 (46.4)	8 (72.7)	8 (16.7)	.033

CA, Community Activity; GN, General Nurse; PCP, Primary Care Physician; RMI, Resident Medical Intern; OGNS, Obstetric-Gynaecological Nurse Specialist; FCNS, Family and Community Nurse Specialist; PNS, Paediatric Nurse Specialist; MHNS, Mental Health Nurse Specialist; RNI, Resident Nurse Intern; SW, Social Worker; Q, Question; SPr, Social Prescription; BMI, Body Mass Index.
[a]Item formulated as a multiple-choice question with only one correct answer; only 77 (14.8%) participants selected the correct answer.
[b]Item formulated as a multiple-choice question, considered correct only when the participant answered: the school, a socio-cultural center for the elderly, and a health center; answered by 378 (72.6%) participants.
[c]Item formulated as a multiple-choice question with only one correct answer; only 65 (12.5%) participants selected the correct answer.

(93.9%) said that PC-based implementation of CA was negligible (Q26), was not standardized (77.5%) (Q25), and did not enjoy the necessary support of the authorities for the purpose of enabling them to be carried out (74.3%) (Q28). Although only 34.9% of the professionals stated that they had participated in a CA in the last four years (Q27), the majority of professionals with specific training (71.9%) did so, with Family and Community Nursing being the professional profile that participated most in CA (74%). In this regard, 88.5% of participants considered that Family and Community nurses should head up the implementation of these types of interventions (Q21).

Furthermore, only 23.2% had received CA-specific training in the preceding 4 years (Q22). Nonetheless, most of the health professionals (90.6%) stated that they would be willing to undergo further training (Q23) to enhance their knowledge of the topic (73.7%), participate in the implementation of CA (53.9%), and even head up such interventions (23.8%) (Q24).

Once again, significant differences were found by reference to the training in CA and the profession received during the previous 4 years (Table 4). In terms of professional activity, the only case in which no significant differences were found between the various professional profiles was participants' expressed willingness to undergo specific training in CA, if the opportunity arose (Q23).

Discussion

To our knowledge, this is the first study to analyze the knowledge, attitudes, and practices of PC professionals regarding CA. The results of this study provide evidence of health professionals' lack of knowledge of CA, SPr, and health assets. Although health professionals show a good attitude toward these activities being carried out, at a practical level the implementation of such interventions at health centers was shown to be negligible. Specific training of professionals in CA could contribute to improving the implementation of these interventions in PC.

Approximately 20% of all-cause deaths are attributed to modifiable risk factors [23], hence the importance of the promotion of a healthy lifestyle and the creation of appropriate settings that serve to lessen the disease burden in society [24]. One of the approaches for achieving these goals is through the implementation of CA, thanks to their health benefits—physical as well as psychological and social—[12] as reported by the PC health professionals in this study. These same health professionals also cited the PC setting as being ideal for carrying out CA. This reinforces the role played by PC as an axis and pivotal point between the community and the health system [25], boosting the health benefits of the populations that it serves [26].

Despite the advances made by research on health promotion in the PC setting, there are limitations to the implementation of CA in clinical practice [27]. This could account for the negligible implementation of CA, as well as the widespread lack of knowledge of available health assets in the study participants' area of work. In turn, this could be related to the negligible support received by health professionals from the authorities for the purpose of enabling CA to be implemented at health centers.

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Table 3. Most frequent attitudes toward CA of primary care professionals (n = 521) belonging to the Galician health service. Complete information for all answer options and questions can be found in Supplementary Material 2. The answers were compared according to the training received and the professional category. Statistical significance (P < .05) was determined by chi-square test.

Attitudes Toward CA	Total N = 521; n (%)	Training received on CA in the last 4 years			Professional category										
		Yes	No	P value	GN	PCP	RMI	OGNS	FCNS	PNS	MHNS	RNI	SW	Other	P value
Q10. The community approach carried out by PC in their health area is sufficient															
1. Strongly disagree	183 (35.1)	51 (42.1)	132 (33)	.013	66 (32.5)	47 (42.0)	9 (23.7)	4 (21.1)	24 (48.0)	4 (36.4)	0 (0.0)	9 (32.1)	2 (18.2)	18 (37.5)	.108
2. Disagree	200 (38.4)	35 (28.9)	165 (41.3)		82 (40.4)	44 (39.3)	13 (34.2)	9 (47.4)	16 (32.0)	3 (27.3)	1 (100)	11 (39.3)	5 (45.5)	16 (33.3)	
Q11. PC should be the reference healthcare setting for the implementation of CA															
4. Agree	137 (26.3)	27 (22.3)	110 (27.5)	.018	54 (26.6)	32 (28.6)	12 (31.6)	3 (15.8)	11 (22.0)	5 (45.5)	1 (100)	5 (17.9)	3 (27.3)	11 (22.9)	.310
5. Strongly agree	298 (57.2)	84 (69.4)	214 (53.5)		111 (54.7)	56 (50.0)	20 (52.6)	15 (78.9)	38 (76.0)	6 (54.5)	0 (0.0)	20 (71.4)	7 (63.6)	25 (52.1)	
Q12. You have the necessary training to carry out CA successfully															
1. Strongly disagree	99 (19.0)	6 (5.0)	93 (23.3)	<.001	48 (23.6)	24 (21.4)	5 (13.2)	0 (0.0)	1 (2.0)	3 (27.3)	0 (0.0)	2 (7.1)	1 (9.1)	15 (31.3)	<.001
2. Disagree	130 (25.0)	17 (14.0)	113 (28.2)		62 (30.5)	33 (29.5)	11 (28.9)	2 (10.5)	3 (6.0)	1 (9.1)	0 (0.0)	5 (17.9)	1 (9.1)	12 (25.0)	
Q13. CA should be evaluated															
4. Agree	124 (23.8)	20 (16.5)	104 (26.0)	.034	52 (25.6)	29 (25.9)	9 (23.7)	3 (15.8)	5 10.0)	1 (9.1)	1 (100)	7 (25.0)	3 (27.3)	14 (29.2)	.516
5. Strongly agree	354 (67.9)	96 (79.3)	258 (64.5)		128 (63.1)	78 (69.6)	23 (60.5)	15 (78.9)	43 (86.0)	10 (90.9)	0 (0.0)	21 (75.0)	7 (63.6)	29 (60.4)	
Q14. Satisfaction surveys are useful for evaluating CA															
4. Agree	134 (25.7)	23 (19.0)	111 (27.8)	.086	56 (27.6)	33 (29.5)	11 (28.9)	3 (15.8)	11 (22.0)	1 (9.1)	0 (0.0)	7 (25.0)	2 (18.2)	10 (20.8)	.291
5. Strongly agree	342 (65.6)	92 (76.0)	250 (62.5)		121 (59.6)	73 (65.2)	22 (57.9)	15 (78.9)	37 (74.0)	10 (90.9)	0 (0.0)	21 (75.0)	9 (81.8)	34 (70.8)	
You would participate in the development of a CA …															
Q15. … if proposed by your colleagues in the PC team															
4. Agree	134 (25.7)	20 (16.5)	114 (28.5)	<.001	56 (27.6)	41 (36.6)	10 (26.3)	5 (26.3)	5 (10.0)	1 (9.1)	0 (0.0)	6 (21.4)	2 (18.2)	8 (16.7)	<.001
5. Strongly agree	295 (56.6)	92 (76.0)	203 (50.7)		101 (49.8)	48 (42.9)	26 (68.4)	13 (68.4)	44 (88.0)	9 (81.8)	0 (0.0)	22 (78.6)	7 (63.6)	25 (52.1)	
Q16. … if you were asked to do so by the management of the PC service															
4. Agree	133 (25.5)	29 (24.0)	104 (26.0)	<.001	49 (24.1)	35 (31.3)	12 (31.6)	5 (26.3)	11 (22.0)	1 (9.1)	0 (0.0)	9 (32.1)	3 (27.3)	8 (16.7)	.003
5. Strongly agree	236 (45.3)	77 (63.6)	159 (39.8)		76 (37.4)	38 (33.9)	23 (60.5)	11 (57.9)	35 (70.0)	6 (54.5)	0 (0.0)	17 (60.7)	5 (45.5)	25 (52.1)	
Q17. The development of CA can improve chronic pathologies such as hypertension, depression or obesity															
4. Agree	131 (25.1)	20 (16.5)	111 (27.8)	.101	54 (26.6)	33 (29.5)	11 (28.9)	3 (15.8)	7 (14.0)	0 (0.0)	1 (100)	5 (17.9)	4 (36.4)	13 (27.1)	.065
5. Strongly agree	349 (67.0)	93 (76.9)	256 (64.0)		127 (62.6)	74 (66.1)	24 (63.2)	16 (84.2)	41 (82.0)	11 (100)	0 (0.0)	22 (78.6)	7 (63.6)	27 (56.3)	
Q18. A reference professional in CA in health centers would facilitate the standardization and participation															
4. Agree	155 (29.8)	28 (23.1)	127 (31.8)	.018	65 (32.0)	34 (30.4)	16 (42.1)	5 (26.3)	13 (26.0)	0 (0.0)	1 (100)	7 (25.0)	5 (45.5)	9 (18.8)	.183
5. Strongly agree	285 (54.7)	81 (66.9)	204 (51.0)		107 (52.7)	58 (51.8)	19 (50.0)	9 (47.4)	30 (60.0)	10 (90.9)	0 (0.0)	19 (67.9)	6 (54.5)	27 (56.3)	

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Table 3. Continued

Attitudes Toward CA	Total $N = 521$; n (%)	Training received on CA in the last 4 years			Professional category										
		Yes	No	P value	GN	PCP	RMI	OGNS	FCNS	PNS	MHNS	RNI	SW	Other	P value
Q19. The development of CA in the field of PC arises from the voluntarism of the professionals															
4. Agree	146 (28.0)	35 (28.9)	111 (27.8)	.015	56 (27.6)	31 (27.7)	15 (39.5)	4 (21.1)	13 (26.0)	3 (27.3)	0 (0.0)	5 (17.9)	3 (27.3)	16 (33.3)	.001
5. Strongly agree	219 (42.0)	64 (52.9)	155 (38.8)		73 (36.0)	58 (51.8)	13 (34.2)	10 (52.6)	30 (60.0)	4 (36.4)	0 (0.0)	17 (60.7)	1 (9.1)	13 (27.1)	
Q20. It is necessary to increase the dissemination of the CA															
4. Agree	138 (26.5)	15 (12.4)	123 (30.8)	.001	62 (30.5)	36 (32.1)	9 (23.7)	4 (21.1)	7 (14.0)	1 (9.1)	1 (100)	5 (17.9)	3 (27.3)	10 (20.8)	.162
5. Strongly agree	349 (67.0)	100 (82.6)	249 (62.3)		128 (63.1)	68 (60.7)	26 (68.4)	15 (78.9)	43 (86.0)	10 (90.9)	0 (0.0)	22 (78.6)	7 (63.6)	30 (62.5)	

CA, Community Activity; GN, General Nurse; PCP, Primary Care Physician; RMI, Resident Medical Intern; OGNS, Obstetric-Gynaecological Nurse Specialist; FCNS, Family and Community Nurse Specialist; PNS, Paediatric Nurse Specialist; MHNS, Mental Health Nurse Specialist; RNI, Resident Nurse Intern; SW, Social Worker; Q, Question; PC, Primary Care.

The lack of knowledge observed in terms of SPr and community assets could be due to the negligible implementation of SPr in the study area. In order for SPr to be undertaken, the area's health resources or assets must be previously identified [28]. For this to be feasible, PC must be strengthened and health professionals' capacity to familiarize themselves with this resource must be enhanced [29]. In this respect, the fact that SPr can be integrated into the PC infrastructure facilitates the exchange of information and improves the service's response capacity, thereby achieving better health outcomes. Moreover, the use of community assets strengthens PC and serves to improve the population's healthy behaviors, underscoring the need to make health assets more visible as a resource, boost these assets, and integrate them into routine medical practice [30, 31].

The low success rate shown by the health professionals in our study in terms of identifying concrete CA could be due to the interpretation of the term "CA" as any action related to health promotion, ignoring fundamental aspects such as the empowerment and active participation of the community [32]. This approach could reduce the potential benefit of CA, by not actively involving the population in decision making about their health, or by drawing up unidirectional health programs that do not envisage the community's specific needs and contexts [33, 34].

The PC health professionals in our study are aware of the difficulties posed by CA when it comes to implementing such activities at health centers. Ranking high among these difficulties is the lack of institutional involvement and commitment, voluntariness when it comes to carrying out CA, the absence of formal evaluation systems, and the low level of self-reported knowledge. Understanding the current limitations facing PC-based implementation of CA is the first step toward improving such implementation [35] and boosting PC as a health promoter in terms of addressing chronic diseases in the community [36].

According to the results of our study, PC professionals with CA-specific training, such as specialists in Family and Community Nursing, display the best knowledge. Accordingly, these health professionals could be recognized as contact points in the implementation of these types of activities. This could improve the dissemination and standardization of CA, through the design of CA in which active participation in the community would be encouraged [37], with the ensuing positive impact on population health [38].

A noteworthy positive aspect of this study is health professionals' ready willingness to participate and undergo further CA training. This, together with institutional involvement [15] is a fundamental factor for PC-based implementation of CA [39]. Based on this, it could be useful to organize CA training activities for health professionals, create a register to foster the dissemination of such activities, and promote specific timetables targeted at a community approach, all of which would maximize the capabilities of health professionals in CA. This would serve to reduce voluntariness for these types of interventions and facilitate their standardization.

By way of strengths, this is the first study to furnish information on the implementation of CA in the SERGAS PC setting. In addition, the study sample included all categories of PC professionals involved in the implementation of CA, something that provides a multidisciplinary and realistic view of the study topic. Bearing in mind the transcendental role played by PC professionals in carrying out these types of

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Table 4. Main results on the practice related to CA development of primary care professionals (n = 521) belonging to the Galician health service. Complete information for all answer options and questions can be found in Supplementary Material 2. The answers were compared according to the training received and professional category. Statistical significance ($P < .05$) was determined by chi-square test.

	Total N = 521; n (%)	Training received on CA in the last 4 years			Professional category										
Practice related to CA		Yes	No	*P* value	GN	PCP	RMI	OGNS	FCNS	PNS	MHNS	RNI	SW	Other	*P* value
Q21. Professional who should lead the development of CA															
a. RNI	159 (30.5)	49 (40.5)	110 (25.7)	.007	54 (26.6)	39 (34.8)	18 (47.4)	0 (0.0)	22 (44.0)	5 (45.5)	0 (0.0)	16 (57.1)	1(9.1)	4 (8.3)	<.001
b. GN	257 (49.3)	62 (51.2)	195 (48.8)	.631	126 (62.1)	49 (43.8)	17 (44.7)	3 (15.8)	29 (58.0)	7 (63.6)	1 (100)	13 (46.4)	1 (9.1)	11 (22.9)	<.001
c. FCNS	461 (88.5)	112 (92.6)	349 (87.3)	.109	182 (89.7)	101 (90.2)	35 (92.1)	12 (63.2)	50 (100)	10 (90.9)	1 (100)	28 (100)	7 (63.6)	35 (72.9)	<.001
d. PNS	236 (45.3)	58 (47.9)	178 (44.5)	.506	93 (45.8)	55 (49.1)	18 (47.4)	7 (36.8)	28 (56.0)	8 (72.7)	0 (0.0)	14 (50.0)	1 (9.1)	12 (25.0)	.009
e. OGNS	229 (44)	57 (47.1)	172 (43.0)	.425	90 (44.3)	50 (44.6)	16 (42.1)	15 (78.9)	27 (54.0)	8 (72.7)	0 (0.0)	12 (42.9)	1 (9.1)	10 (20.8)	<.001
f. MHNS	218 (41.8)	53 (43.8)	165 (41.3)	.618	81 (39.9)	53 (47.3)	15 (39.5)	7 (36.8)	26 (52.0)	8 (72.7)	0 (0.0)	12 (42.9)	2 (18.2)	14 (29.2)	.095
g. PCP	263 (50.5)	69 (57.0)	194 (48.5)	.100	89 (43.8)	83 (74.1)	34 (89.5)	2 (10.5)	23 (46.0)	3 (27.3)	0 (0.0)	11 (39.3)	1 (9.1)	17 (35.4)	<.001
h. RMI	153 (29.4)	47 (38.8)	106 (26.5)	.009	48 (23.6)	44 (39.3)	24 (63.2)	1 (5.3)	20 (40.0)	2 (18.2)	0 (0.0)	10 (35.7)	1 (9.1)	3 (6.3)	<.001
i. SW	254 (48.8)	66 (54.5)	188 (47.0)	.146	83 (40.9)	67 (59.8)	24 (63.2)	5 (26.3)	21 (42.0)	7 (63.6)	0 (0.0)	12 (42.9)	10 (90.9)	25 (52.1)	.001
j. Other	56 (10.7)	6 (5.0)	50 (12.5)	.019	26 (12.8)	7 (6.3)	1 (2.6)	0 (0.0)	5 (10.0)	0 (0.0)	0 (0.0)	2 (7.1)	1 (9.1)	14 (29.2)	.001
Q22. Training on the implementation of CA in the last 4 years															
a. Yes	121 (23.2)	---	---	---	22 (10.8)	27 (24.1)	16 (42.1)	3 (15.8)	30 (60.0)	1 (9.1)	0 (0.0)	15 (53.6)	3 (27.3)	4 (8.3)	<.001
Q23. Interest in receiving training on CA															
a. Yes	472 (90.6)	113 (93.4)	359 (89.8)	.230	182 (89.7)	95 (84.8)	36 (94.7)	19 (100)	49 (98.0)	11 (100)	1 (100)	26 (92.9)	10 (90.9)	43 (89.6)	.212
Q24. Main reason to receive training on CA[a]:															
c. You would like to increase your knowledge in this field	384 (73.7)	85 (70.2)	299 (74.8)	.074	164 (80.8)	70 (62.5)	23 (60.5)	14 (73.7)	40 (80.0)	9 (81.8)	1 (100)	21 (75.0)	7 (63.6)	35 (72.9)	.012
Q25. The development of CA in PC is standardized:															
b. No	404 (77.5)	110 (90.9)	294 (73.5)	<.001	135 (66.5)	94 (83.9)	32 (84.2)	17 (89.5)	48 (96.0)	11 (100)	0 (0.0)	24 (85.7)	10 (90.9)	33 68.8)	<.001
Q26. The development of CA in health centers is deficient:															
a. Yes	489 (93.9)	120 (99.2)	369 (92.3)	.006	184 (90.6)	111 (99.1)	37 (97.4)	19 (100)	50 (100)	11 (100)	1 (100)	28 (100)	11 (100)	37 (77.1)	<.001
Q27. Participation in CA in the PC setting recently:															
b. No	321 (61.6)	34 (28.1)	287 (71.8)	<.001	151 (74.4)	76 (67.9)	19 (50.0)	5 (26.3)	13 (26.0)	5 (45.5)	0 (0.0)	9 (32.1)	9 (81.8)	34 (70.8)	<.001
Q28. Administrative support to facilitate the development of CA:															
b. No	387 (74.3)	90 (74.4)	297 (74.3)	.001	141 (69.5)	96 (85.7)	30 (78.9)	13 (68.4)	37 (74.0)	7 (63.6)	1 (100)	22 (78.6)	10 (90.9)	30 (62.5)	.007

CA, Community Activity; GN, General Nurse; PCP, Primary Care Physician; RMI, Resident Medical Intern; OGNS, Obstetric-Gynaecological Nurse Specialist; FCNS, Family and Community Nurse Specialist; PNS, Paediatric Nurse Specialist; MHNS, Mental Health Nurse Specialist; RNI, Resident Nurse Intern; SW, Social Worker; Q, Question; PC, Primary Care.
[a](Q24): calculations made in relation to participants who would be willing to undertake CA training (n = 472).

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interventions, this study reveals the key factors that can influence the effective implementation of CA in PC and highlights the factors that would have to be improved for effective CA to be developed in PC, furnishing the necessary information for introducing policies that would improve a PC-based community approach [8].

This study has some limitations. The fact that there was no fully validated questionnaire could have allowed for information bias. However, a pilot study was conducted with 10 volunteers to evaluate the clarity and comprehensibility of the items. In addition, there is the possibility of participation bias, in that the participants who were most motivated or interested in the topic might have been the very ones who completed the questionnaire.

Conclusion

PC professionals with specific training in CA have better results in terms of knowledge, attitudes, and practices for the development of CA in PC. Considering the effectiveness of CA in terms of improving the quality of life of patients with chronic diseases and the important role of PC professionals as health promotion agents in the community, the training of these professionals should be promoted and improved to foster the development of community-based programs aimed at reducing the global epidemic of chronic diseases.

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Supplementary material

Supplementary material is available at *Family Practice* online.

Conflict of interest

All authors declare no competing interests.

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Ethical approval

This study was approved by the Research Ethics Committee of Santiago-Lugo (registration code 2022/277).

Data availability

Data cannot be shared for ethical/privacy reasons.

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