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ORIGINAL RESEARCH: EMPIRICAL RESEARCH - MIXED METHODS

Theory-based capacity building intervention for intersectoral action for health at local governments: An exploratory pilot study

Naia Hernantes[1,2] | Elena Bermejo-Martins[2,3] | Kjell Ivar Øvergård[4] | María Jesús Pumar-Mendez[3,5] | Olga Lopez-Dicastillo[3,5] | Andrea Iriarte-Roteta[2,5,6] | Elena Antoñanzas-Baztan[5,6,7] | Agurtzane Mujika[1]

[1]Department of Nursing II, Faculty of Medicine and Nursing, University of the Basque Country, Donostia-San Sebastián, Spain

[2]School of Nursing, University of Navarra, Pamplona, Spain

[3]Navarra Institute for Health Research, Idisna. Pamplona, Spain

[4]Research group for Health Promotion in Settings, Department of Health-, Social-, and Welfare Studies, University of South-Eastern Norway, Kongsberg, Norway

[5]Department of Health Sciences, Faculty of Health Sciences, Public University of Navarra, Pamplona, Spain

[6]Osasunbidea Health Care Service, Navarra, Spain

[7]Government of Navarra, Department of Health, Navarra, Spain

Correspondence
Elena Bermejo-Martins, School of Nursing, University of Navarra, Irunlarrea street, N1. Pamplona, Navarra 31008, Spain.
Email: ebermejo@unav.es

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Abstract

Aim: To design, implement and evaluate a nurse-led capacity building intervention (PromoGOB) for intersectoral action for health at local governments.

Design: The programme was based on theories of the policy process and organizational change and facilitated by a nurse developing a health broker role. A complex intervention perspective was adopted in carrying out the study. The intervention was evaluated using a mixed method embedded design.

Methods: Quantitative component relied on a specific questionnaire. This tool, designed and piloted ad hoc, measured the capacity in terms of knowledge, awareness, resources, skills, and commitment, both at sectoral and government levels. For the qualitative component, semi-structured interviews were conducted. These explored the perceived capacity and feasibility and acceptability issues. The programme was initiated at the end of October 2019, and it lasted a total of 5 weeks. Nineteen individuals representing various sectors at a local government in northern Spain participated in the study. The data analysis was concluded by the end of March 2020.

Findings: PromoGOB positively influenced participants' capacity for addressing health promotion. Awareness component, intersectoral work and the nurse as health broker were essential in the programme. The necessity of political participation was identified as an issue to be prioritized in future studies.

Conclusion: This study highlights the relevance of capacity building at local governments and the role that nurses can play in it. Further work should be undertaken to continue developing Health in All Policies approach at local level.

Impact: This study offers a starting point for nurses to get involved in the policy process of health promotion, performing a specific role as health brokers, building capacity at local governments for addressing social determinants of health, and delving into theories and concepts of the Health in All Policies field.

KEYWORDS
capacity building, health broker, health in all policies, health promotion, intersectoral action, local governments, public health nursing, social determinants of health

1 | INTRODUCTION

Nurses can play an important role helping individuals to reach their fullest health potential by influencing the Social Determinants of Health (SDH) that have an impact on people's lifestyles (McMurray & Cheater, 2003; Robertson & Baldwin, 2007). SDH are the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life. Those forces and systems include economic policies and systems, political agendas, social norms, social policies and political systems (World Health Organization, 2008).

The SDH are not equally distributed at local level, generating social inequalities in health. Addressing social inequalities and the differences in the opportunities that people have to improve their health is one of the major challenges faced in health promotion (Borrell & Pasarin Rua, 2004; Chesire, 2012; Reid, 2011; World Health Organization & UN-Habitat 2016). However, removing them is not easy because they are complex, with multiple structural causes and without simple, easy solutions (Fosse, Sherriff, & Helgesen, 2019).

In this context, Health in All Policies (HiAP) has emerged as a leading strategy to mitigate inequalities (World Health Organization, 2013). HiAP is a governmental approach to public policy-making that systematically considers the health implications of decisions across sectors. HiAP thus aims to establish synergistic relationships between sectors, requiring intersectoral action, to improve population health and equity, and impact the social determinants of health (SDH)—on which the health sector has a limited influence (McQueen, Wismar, Lin, Jones, & Davies, 2012; Melkas, 2013; World Health Organization, 2013).

The HiAP approach is especially relevant at the municipal level due to the impact local governments (LG) have on SDH (Commission, 2007; Guglielmin, Muntaner, O'Campo, & Shankardass, 2018). Sectors such as urban planning, environment, municipal police, public health and social action, among others, have an impact on more than 70% of the conditions that make people sick (Keshavarz Mohammadi et al., 2020; World Health Organization, 2012). In short, LG are in a position of privilege to have a direct and lasting impact on SDH (Guglielmin et al., 2018; Van Vliet-Brown, Shahram, & Oelke, 2017).

Despite this, the HiAP approach faces numerous challenges in LG. These challenges derive from issues such as the fact that LG are organized and established in sectoral silos with highly verticalized structures (different levels in a very hierarchical structure), having independent objectives, budgets and results, and highly specialized departments (Larsen, Rantala, Koudenburg, & Gulis, 2014; Taylor-Robinson et al., 2012; Van Vliet-Brown et al., 2017). Furthermore, evidence has shown the absence of a common language for health between sectors in terms of the SDH (Storm, Den Hertog, Van Oers, & Schuit, 2016; Taylor-Robinson et al., 2012; Weiss, Lillefjell, & Magnus, 2016), and a lack of awareness about the impact the various sectors have on SDH (Shankardass, Solar, Murphy, Greaves, & O'Campo, 2012; Storm et al., 2016). The lack of a shared vision and a feeling of belonging related to health issues, together with all the other factors mentioned above, affect political and administrative commitment to improve health and reduce inequalities (Larsen et al., 2014; Rantala, Bortz, & Armada, 2014; Scheele, Little, & Diderichsen, 2018; Storm et al., 2016; Synnevåg, Amdam, & Fosse, 2018; Van Vliet-Brown et al., 2017). These difficulties hamper collaborations between government departments, which is particularly significant given that intersectoral action is the foundation of the HiAP approach (Freiler et al., 2013).

Nurses' role in health promotion has been widely described (Iriarte-Roteta et al., 2020; Kang, 1995; Lopez-Dicastillo et al., 2020); in addition to promoting individuals' control over the SDH, they should also put the focus on all those institutions and key agents that operate at the local level and have an impact on health (Lopez-Dicastillo et al., 2020).

The nursing profession has been challenged to lead the achievement of health equity (Moss & Phillips, 2020). This entails moving beyond direct care within hospital systems to encompass a focus on improving SDH through collaboration, advocacy and political involvement (Lathrop, 2013; Moss & Phillips, 2020). To this end, it has been pointed out that community and public health nurses are well positioned to integrate the health perspective in societal sectors and foster intersectoral collaboration among them (McFarland & MacDonald, 2019; Persaud, 2018).

Previous literature has highlighted the need to reinforce LG capacity to advance health promotion (Hagen, Øvergård, Helgesen, Fosse, & Torp, 2018; Hernantes, Bermejo-Martins, Pumar-Mendez, et al., 2020) ; Van Vliet-Brown et al., 2017; Von Heimburg & Hakkebo, 2017). Despite the need to develop capabilities for intersectoral collaboration, there is a lack of intervention studies in the scientific literature related to HiAP at local level. This study set out to design, implement and evaluate a capacity building intervention for intersectoral action for health at LG led by a nurse.

2 | BACKGROUND: INTERVENTION DESIGN

The challenges associated with the HiAP approach resemble the key features highlighted by capacity-building framework (NSW Health Department, 2001), which includes the need of working around people and sectors' awareness, knowledge, skills, resources and commitment towards improving living conditions and lifestyles (Casey,

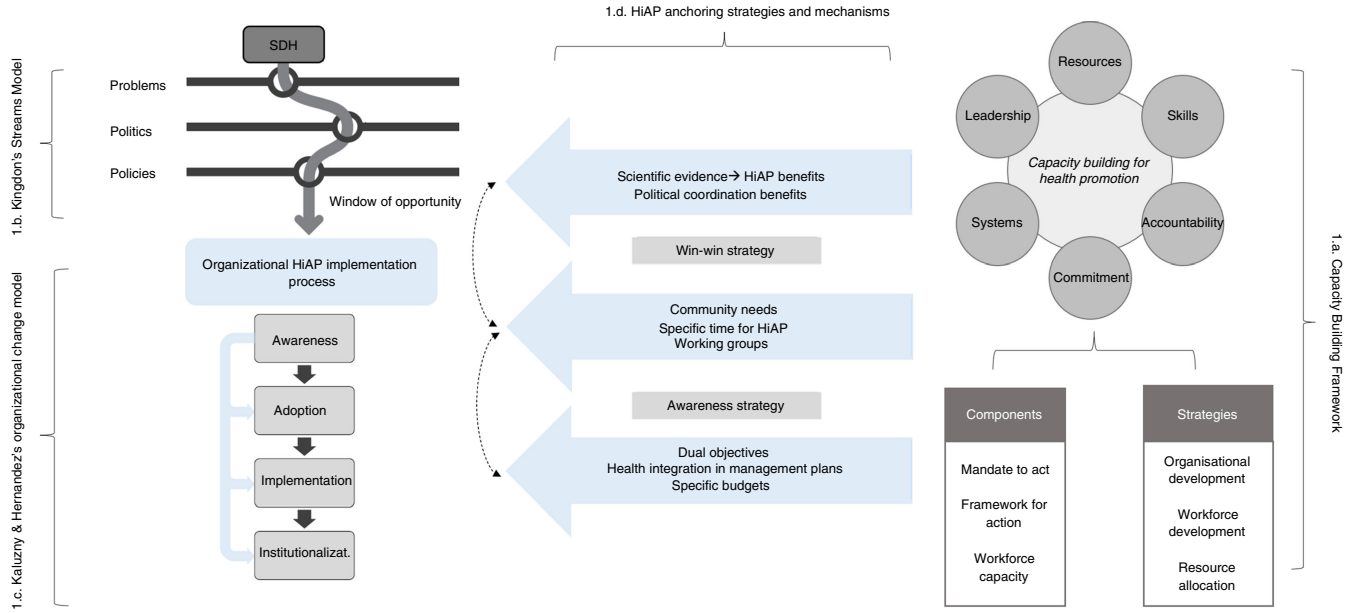

FIGURE 1 Theoretical foundations of the intervention

Payne, & Eime, 2012) (see Figure 1a). Furthermore, workforce development is one of the three main components of capacity building (Heward et al., 2007; NSW Health Department, 2001).

While this framework has been frequently described and studied in the area of health care (DeCorby-Watson et al., 2018), no previous experiences could be found in the literature that had dealt with intersectoral health promotion in governmental settings from a capacity-building perspective. At the LG level, it is necessary to pay attention to two coexisting and interacting areas: political sphere and administration (Carey & Friel, 2015). Thus, we explored the theories that provide a basic framework and explanation of how changes occur in these two coexisting areas to understand how both capacity building and the inherent intersectorality of HiAP can be synergized in the LG.

In the political sphere, the Multiple Streams Model of policymaking developed by Kingdon (1995) (see Figure 1b) allows to identify, in three coexisting streams, windows of opportunity to integrate the HiAP approach into the political agenda (Baum, Lawless, & Williams, 2013; Kingdon, 1995; Ollila, 2011). These streams are based on *problems*, *policies and politics*. The first one of them refers to how the awareness around the SDH can be developed, attracting the attention of politicians and fitting into their agenda, and how politicians respond to them.

While Kingdon's model can be considered the first stage in the political process of HiAP, it does not provide explanation of how these issues evolve and materialize in the organization (Howlett, McConnell, & Perl, 2015). Thus, Kaluzny and Hernandez's (1983) Organizational Change Model for healthcare systems was necessary. This model describes how changes occur throughout the organization until they are institutionalized (see Figure 1c). According to Kaluzny and Hernandez (1983), it is a process that involves four stages: awareness, adoption, implementation and institutionalization. The first one of them is characterized by the awareness of a gap addressing health issues in the organizational activity.

In this study, these models helped to understand how to the HiAP approach become integrated as part of a routine at LG, ensuring its sustainability over time, with maximum intersectoral collaboration (Baum et al., 2013; Solar, Valentine, Rice, & Albrecht, 2009), the intervention should focus on Kingdon's problems stream and Kaluzny and Hernandez's first stage, by tackling the awareness of HiAP gap in the LG. Therefore, strategies to develop this awareness among LG workforce, together with the knowledge, skills, resources and commitment, proposed by the capacity-building framework were identified.

According to Molnar et al. (2016), a combination of strategies can be used in workforce development. These include using scientific evidence to support effectiveness of HiAP; policy coordination as a way of strengthening public health; using dual outcomes to demonstrate the value of HiAP for non-health sectors; win-win strategies and introducing community needs (Molnar et al., 2016; Ollila, 2011; Sihto, Ollila, & Koivusalo, 2006).

To operationalize all of the above, it was proposed that increasing knowledge about the SDH would stimulate the development of a common language among sectors and the awareness of their impact on the population's health (Shankardass et al., 2012; Storm et al., 2016; Taylor-Robinson et al., 2012). This first step could be the key to promoting the sense of belonging on health issues, which would help the various sectors understand that health issues are their responsibility (Shankardass et al., 2018; Synnevåg et al., 2018). The sense of belonging is a crucial precursor of commitment (Guglielmin et al., 2018). This commitment, when experienced collectively, would ensure a shared vision of health, and favour the establishment of common goals that would promote the sense of responsibility and accountability in matters relating to health (Weiss et al., 2016). In

doing this, work group and time allocation were deemed essential. As a result, the specific aims of the sessions of the intervention were determined well as the mechanisms and strategies that would permit achieving those (see Figure 2).

Additionally, attention was paid to the facilitator in this intervention. In this role, facilitating the group dynamic, as well as integrating scientific evidence while keeping in mind the theoretical components underlying the intervention, pointed out to the attributes of health brokers. Health brokers act as facilitators, change agents, or 'catalysts' in connecting stakeholders and stimulating an integrated approach (van Rinsum, Gerards, Rutten, van de Goor, & Kremers, 2017). They aim to create support and establish permanent collaborations and encourage knowledge exchange among politicians, sectors and citizens to improve the health of the community; they also act as 'anchoring point' connecting the local community to local administration (J. Harting et al., 2011; van Rinsum et al., 2017). They are fundamental for capacity building for health promotion at organizational level and specially relevant in the advancement of healthy public policies (Harting et al., 2011; Langeveld, Stronks, & Harting, 2016; Peters et al., 2016; Traynor, DeCorby, & Dobbins, 2014; van Rinsum et al., 2017). At the international level, an increasing number of health brokers are being recruited as municipality staff to advance HiAP (Guglielmin et al., 2018; Hagen, Helgesen, Torp, & Fosse, 2015; Van Vliet-Brown et al., 2017).

Given the complexity of both the task and the organization itself, as well as the multiple interacting components, a complex intervention approach was considered appropriate, and a logic model was constructed (see Table 1). This model would help represent the theory underlying the intervention in a simple, schematic fashion and understand the outcomes (Craig et al., 2008; Mills et al., 2019). Furthermore, a protocol was established detailing the specifics of the sessions.

2.1 | The PromoGOB programme: protocol

The PromoGOB programme consisted of three 2-h sessions to be undertaken with LG employees.

2.1.1 | The first session: 'Health: is it our choice or a contextual consequence?'

Aim: to increase awareness.

Description: the focus was on increasing the knowledge about the SDH to develop a common language that could allow to work the collective awareness of the group.

Activities: a video was watched in which lay people expressed their salutogenic viewpoints on health and explained how LGs could

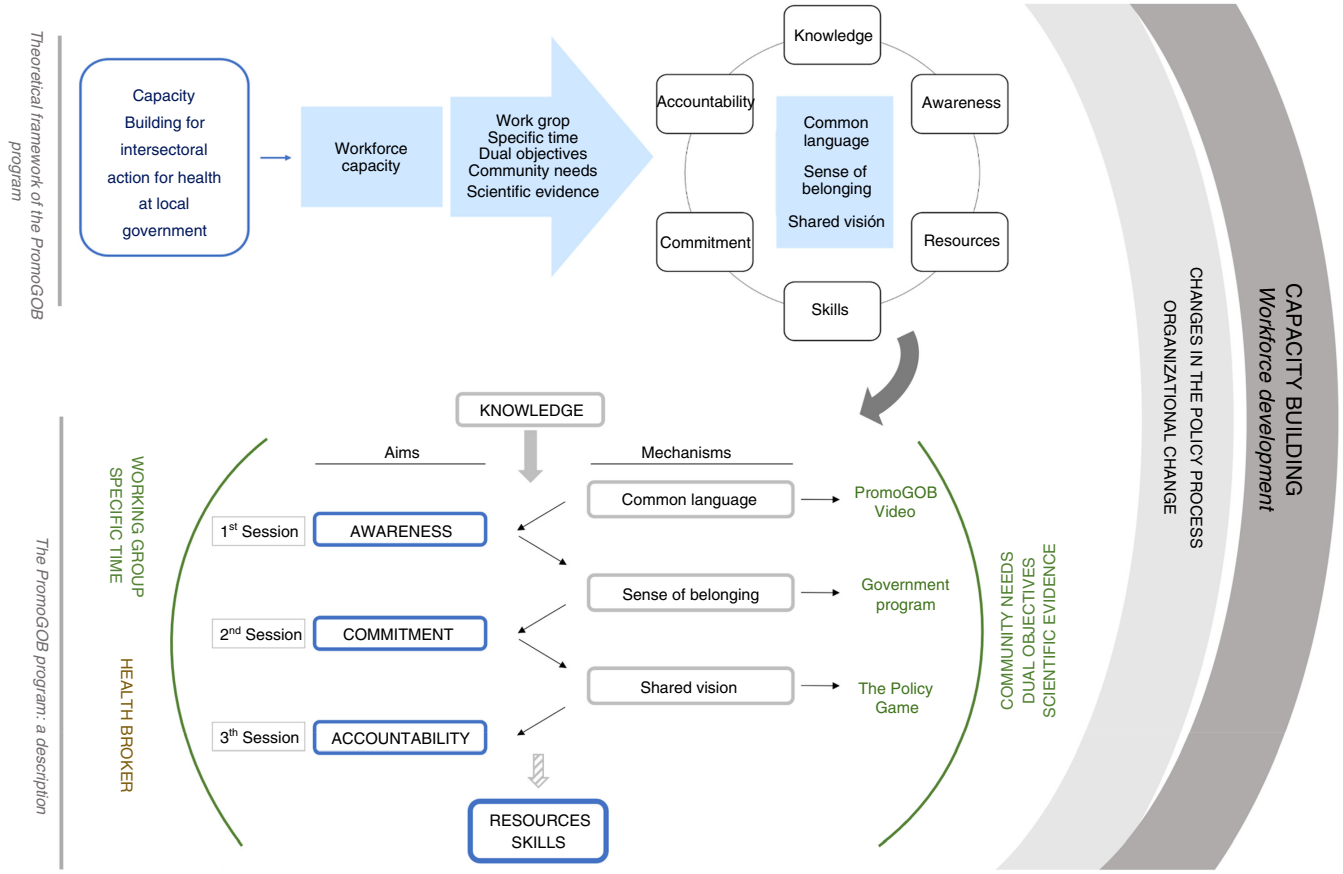

FIGURE 2 PromoGOB's theoretical bases

TABLE 1 Intervention's logic model

Problem	Scientific evidence	Resources	Intervention	Key components	Results	Long term results
There is a lack of intersectoral action for health promotion at local governments.	Intersectoral action is the catalyst of the HiAP approach There is a lack of capacity at local governments for starting collaborations supporting health issues	Nurse specialized in health promotion in local contexts Economic resources provided by a scholarship Previous contact with the local government Design of the intervention guided by 'health Promotion in Settings' Norwegian research group, whose development has put some focus on HiAP at local governments	PromoGOB programme: Capacity building for health promotion at local government (Three 2-h sessions) Oriented to work around knowledge, awareness, resources, skills, commitment, and accountability Focused on local government's workers Facilitator: Health broker's attributes	Participatory approach All sectors and workers participation Shared knowledge construction Common language construction Health issues' sense of belonging Shared vision construction PromoGOB's working material extracted from Local government Facilitator In health broker role	Understanding of health concept from SDH perspective Awareness about different sector's impact on SDH Increase of Sector's commitment on SDH Increase of government commitment on SDH Resources' identification Skills perception for health promotion increased More capacity for collaborate around health issues	Local Health Plans Healthy Public Policies Local SDH assessment Better individual and community health

influence SDH. This video also showed the needs that the community perceived.

Participants were then asked to share their sectoral opinion, and a debate was started. Different sectoral discourses and points of views were interrelated helped by the facilitator, translating specific departmental aspects into SDH language, and building a collective health perspective.

Materials: the video used in this session was specifically recorded for the programme. For creating the video script, the technical terminology of the underlying theory relating to SDH and HiAP was adapted to a common language through a participatory workshop with citizens. It helped introduce complex HiAP concepts in an easy way, showing the community needs.

2.1.2 | The second session: 'Local government's contribution to health'.

Aim: to increase commitment.

Description: work on fostering a sense of belonging of health issues was undertaken. Based on the health perspective constructed during the first session, the group, helped by the facilitator, stablished a health definition that they perceived as their own: 'Health is not just the physical wellbeing of a person, but also the social, emotional and cultural wellbeing in his/her own community; a sustainable community in which each individual is able to reach his/her best as human being, contributing in this way to the wellbeing of their whole community'. Taking this as starting point, the government programme was analysed to determine the sector's proposals that could have an impact in the above health definition. The facilitator helped to identify opportunities for collaboration based on the government programme and propose alternatives to enable policy changes (Harting et al., 2011).

Materials: government programme. It is considered the highest expression of written commitment in a government (Hollister, 2000), and it also allowed to stablish dual objectives (Molnar et al., 2016).

2.1.3 | The third session: 'Local governments as health promoters'.

Aim: to foster accountability.

Description: to explore the concept of accountability, which is defined as the answerability or legal responsibility for identifying and removing obstacles and barriers to health equity (Hammonds, Hanefeld, & Ooms, 2019), an activity named 'the Policy Game' (Spitters et al., 2018) was displayed. Policy games are interactive, participatory approaches, taking real-life situations as a starting point. In this activity, participants were invited to think of creating a future in terms of intersectoral health accountability, by policy exploration and creative decision making in a stakeholder network (inter-organizational or between independent organizations). The facilitator helped proposing alternatives to enable policy changes (Harting et al., 2011).

Description of a scenario: The group was divided into two subgroups, which adopted two main roles during the session: local government and community. In the first part of the session, both subgroups, assuming the local government role, worked on a proposal for answering the following question: 'How can the local government communicate or transparently convey to the community the actions made for the population's health and wellbeing?' In the second part of the session, each subgroup launched a proposal of their own on what could be made as the local government to the other subgroup, which was playing the community role. The answers were discussed, and the facilitator gradually introduced the term 'accountability', relating it to the arguments given by the subgroups in each role.

2.2 | The study

2.2.1 | Study aims

This study had the following aims:

1. To estimate the efficacy of the intervention (the PromoGOB programme) in increasing knowledge, awareness, resources, skills and sectoral and government commitment to health promotion.
2. To examine the perceived capacity of the participants to promote population health at the LG level after having participated in the programme.
3. To assess the acceptability of the PromoGOB programme among the participants.
4. To explore the feasibility of the PromoGOB programme by analysing the deployment and implementation of the programme.

2.2.2 | Study design

An exploratory pilot study was conducted using a mixed-methods approach. More specifically, an embedded design with a mainly quantitative focus was used for a pre-test–post-test evaluation of the efficacy of the programme (Campbell & Stanley, 1966; Creswell, 2015). The qualitative component of the study was intended to examine the perceived capacity of the participants, which is essential when evaluating capacity building (NSW Health Department, 2001) and explore the acceptability of the programme and factors that influenced the implementation of the intervention.

2.2.3 | Participants and recruitment

The study was conducted in a town council of a city with 188,240 inhabitants in northern Spain (Instituto Nacional de Estadística, 2020). The town council consists of the mayor, his councillors and the department directors; the administrative structure comprises the chiefs of sections, and technical and administrative profiles (16 departments contain approximately 1500 people [Supplementary Material 1]).

For feasibility purposes, it was determined a maximum target of 60 participants, involving all job profiles and sectors. Participants must have 1 year working experience minimum in the council.

A request to participate was sent out through the citizen's mailbox of the town hall, which the chief of the public health section could access. He organized a meeting with the councillor and the director of environment and public health department, so that the researchers could present the project. Approval for the study was obtained in June 2019.

A briefing session was organized in one of the rooms of the Town Hall to recruit participants. All directors of departments were invited to the information session. Subsequently, an information/registration letter was sent out by internal email to all municipality council workers. People who enrolled in the programme were sent a folder with a thank you note, an informed consent form and baseline questionnaires by ordinary internal mail. They were asked to bring all the documentation after filling these out to the first session.

2.3 | The intervention

The PromoGOB programme was conducted at the Town Hall. Each session was repeated up to three times to facilitate attendance. The programme was initiated at the end of October 2019 and there was an interval of 7 and 10 days, respectively, after the first, second, and third sessions. The programme lasted a total of 5 weeks. The facilitator of the programme, a nurse, was the first author of this article, and she acted as health broker.

2.4 | Data collection

Different data collection methods were used before and after the intervention to achieve study objectives (see Table 2).

2.4.1 | Socio-demographics characteristics

A questionnaire was administered to record sociodemographic data on gender, seniority, job profile, department and education.

2.4.2 | Capacity building for health promotion

As we were unable to find any other appropriate tool, the CaPSaIGOB questionnaire was designed and piloted prior to the intervention to assess the health promotion capacity of the LG. CaPSaIGOB was composed by 42 items divided in six scales. Further details on the tool can be found in the section 'Validity and reliability/Rigour'.

TABLE 2 Data collection methods

Variable	Method	Informant	Assessment time	Duration
Sociodemographic characteristics	Sociodemographic questionnaire	Participant	T0	5 min
Knowledge of health concept Awareness sectors' impact on SDH Skills for health promotion Resources for health promotion Sector commitment Government commitment	CaPSalGOB questionnare	Participant	T0–T1	15 min
Perceived capacity	Semi-structured interview	Participant	T1	15 min
Satisfaction	Satisfaction questionnaire	Participant	T1	5 min
Acceptability	Semi-structured interview	Participant	T1	15 min
Feasibility	Evaluation questionnaire	Participant	T1	5 min
	Field diary	Researcher	Continuous	NA

Abbreviation: NA, not applicable.

2.4.3 | Perceived capacity, acceptability and feasibility of the programme

To explore participant's acceptability of the PromoGOB programme, a satisfaction questionnaire was used, including four items rated from 1 to 10 about the satisfaction with the programme characteristics and application process and three open questions to explore participant's view regarding their experiences and goal achievement in sessions, programme materials, the role of the facilitator and future programme's recommendations and improvements.

After analysing the questionnaires responses, semi-structured interviews were conducted among some purposively selected participants to explore more in depth their answers and their perceived capacity. The selection was based on the criteria of participants with big differences in the pre-post CaPSalGOB responses, and participants who added improvement proposals for the programme. This corresponded to the integration of the quantitative and qualitative phases, within the embedded design.

The thematic guide is described in Supplementary Material 2. Nine participants were interviewed; the interviews were recorded and lasted approximately 35–45 min. They were carried out by the first author of this study.

Finally, the events of the sessions were recorded in a field diary to collect data on the observations and reflections made during the work process (Arantzamendi, García-Vivar, & López-Dicastillo, 2012). The contents of the field diary included data on organizing the sessions, the participation of the various attendees, whether the sessions were in line with the initial design, the changes introduced during the sessions and the materials and resources used in the sessions. The data analysis was concluded by the end of March 2020.

2.4.4 | Ethical considerations

The relevant ethical committee approved this study. The environment and public health councillor authorized the research, and all the participants provided written informed consent. All data were treated confidentially and anonymized. Paper data were kept under lock and key, and digital information was held in a protected account using two-factor authentication.

2.4.5 | Data analysis

Attendance at the three programme sessions was required for analysing the data. Quantitative data were entered into the IBM SPSS software package, version 27 (IBM Corp). Pre-test and post-test questionnaire data were analysed using paired samples *t*-tests (pre-test—post-test), and Cohen's *d* (Cohen, 1992) was used as a measure of effect size; variability was estimated using 95% confidence intervals (CIs). The interviews were transcribed and analysed using framework analysis (Arantzamendi et al., 2012); the framework was articulated based on perceived capacity, feasibility and acceptability issues. The first author made a preliminary conceptual index for the framework, which was discussed with the co-authors. After consensus was stablished for that index, it was applied to all the transcriptions by the first author and reviewed by the rest of the team.

2.4.6 | Validity and reliability/rigour

The study used a mixed methods approach for the evaluation of the programme. Attention was paid to describing both components, their sequencing and integration (O'Cathain et al., 2010). In

terms of the quantitative component, CaPSalGOB questionnaire was composed by 42 items structured in six domains and measured by a Likert scale from 1 = totally disagree to 7 = totally agree: knowledge (9 items), awareness (8 items), resources (5 items), skills (6 items), sectoral commitment (6 items) and government commitment (8 items). The resources and skills scales were adapted from the workbook 'Health Promotion Capacity Checklist' (Prairie Region Health Promotion Research Centre, 2004). CaPSalGOB was assessed in a pilot study in two LGs of different regions among 42 participants (Hernantes, Bermejo-Martins, & Mujika,, 2020). Initially, CaPSalGOB questionnaire had 45 items that, after factorial analysis, were reduced to 42. Reliability analysis showed a good internal consistency for all domains: knowledge (α = .71), awareness (α = .75), resources (α = .88), skills (α = .87), sectoral commitment (α = .97), government commitment (α = .92). Pearson coefficient also showed an appropriate correlation between scales.

For the qualitative data, Guba and Lincoln's (1981) assessment criteria were used. The main researcher kept a detailed track record of the data collection process by means of the field diary. Interview transcripts were initially analysed by the first author and then discussed by the research team for consensus. Sustained engagement was held with the setting throughout the study, which contributed to credibility. Quotations from the interviews are also provided. The field diary served to ensure the researcher's reflexivity as well as the fidelity of the intervention.

3 | RESULTS

Of the 28 people initially registered, 19 completed the programme. Participants were mainly women; most of the departments of the Council were represented. There were no political representees (see Table 3).

TABLE 3 Sample's characteristics

Variable	Frec.	Percent. (%)
Gender (n = 19)[a]		
Female	14	73.7
Male	5	26.3
Sector of origin (n = 19)		
Public Health and environment	3	15.8
Urban Planning & Projects	2	10.5
Education and social promotion	2	10.5
Municipal Police department and Emergencies and Fire Services	2	10.5
Maintenance of urban services	3	15.8
Presidency	4	21.1
Emergencies and Fire Services	1	5.3
Others	3	15.8
Professional profile (n = 19)		
Chief of section	2	10.5
Technical profiles	7	36.8
Administrative profiles	3	15.8
Others	7	36.8
Academic education (n = 19)		
High School	2	10.5
Cert. of Higher education	2	10.5
University	14	73.7
Others	1	5.3
Previous knowledge (n = 19)		
No	17	89.5
Yes	2	10.5

[a]Of the 28 people initially registered, 7 participants did not complete the programme due to unforeseen work issues, 1 participant forgot to attend to the first session and 1 was unable to complete the programme due to a sick leave.

3.1 | Efficacy of the intervention

Despite scores of all variables increased from pre-test to post-test, significant differences were found in three of the six variables (awareness, resources and sectoral commitment). *Awareness* had a large effect size (d = 1.11, 95% CI of d [0.53; 1.68], p < .001), while the *resources* scores showed a medium effect size (d = .60, 95% CI of d [0.10; 1.08], p = .018); difference in *sectoral commitment* showed a medium effect size (d = .50, 95% CI of d [0.01; 0.97], p = .045). Overall Capacity also showed a large improvement in scores from pre-test to post-test (d = 0.89, 95% CI of d [0.34; 1.41], p = .001). Conversely, the intervention had a small and not significant effect sizes on both *skills* (d = .44, 95% CI of d [−0.04; 0.90], p = .073), and *government commitment* (d = .45, 95% CI of d [−0.03; 0.92], p = .064). Descriptive and inferential statistics of the scales are shown in Table 4.

3.2 | Perceived capacity

All the participants noted an increase in their capacity to promote health in their respective departments. This was mainly related to the awareness of the impact their sector had on population health.

> [H1X]: 'The mere fact of talking (about SDH) or treating it can make you realize that you can (address them) or that there are other things you can do (from within your sector) … well, if you have never considered it, you do not realize what you can do, or the ways you have to promote health and well-being at your disposal.'

The participants appreciated the opportunity to reflect on the subject in a group that included diverse sectors and experiences. The group work during the sessions thus allowed them to see how people

TABLE 4 Efficacy results

Variable	Mean	SD	Mean	SD	*t*	*p*	*d*	95% CI of *d*
Knowledge	6.11	0.57	6.30	0.60	−1.54	.140	0.35	[−0.12; 0.81]
Awareness	5.02	0.79	5.41	0.71	−4.85	<.001	1.11	[0.53; 1.68]
Resources	2.72	1.39	3.31	1.23	−2.61	.018	0.60	[0.10; 1.08]
Skills	2.74	1.40	3.04	1.53	−1.90	.073	0.44	[−0.04; 0.90]
Sectoral commitment	4.96	1.91	5.94	1.22	−2.16	.045	0.50	[0.01; 0.97]
Government's commitment	6.26	0.76	6.54	0.54	−1.98	.064	0.45	[−0.03; 0.92]
Overall capacity	4.64	0.86	5.09	0.71	−3.86	.001	0.89	[0.34; 1.41]

Note: $N = 19$ and $df = 18$ for all tests.

Abbreviations: 95% CI, 95% confidence interval; *d*, Cohen's delta; *df*, degrees of freedom; *p*, statistical significance level for two-tailed test; Pre, measures before intervention; Post, measures after intervention; SD, standard deviation; *t*, *t*-value from paired samples *t*-test (Pre − Post).

from different departments could together contribute to health and well-being.

> [B5J]: '… the shared knowledge, that is, the knowledge that one person had of his area of work… of what he did and could contribute; and that of another person who had knowledge of his area and who could also contribute … then, the sum of individual knowhows, once shared, could lead to (capacity) building.'

The participants also agreed that the programme facilitator had played a key role in creating the right environment and integrating all viewpoints.

> [E3U]: 'Well, you have to create the right environment for people to open up and provide their work details … although the areas are very different, there were situations in which we connected … You (the facilitator) directed the conversation, the topic, the context… you opened our eyes, made us aware.'

3.3 | Feasibility of PromoGOB

As the field diary indicated, all sessions took place according to the established plan. Two important aspects about the feasibility of the programme need to be highlighted:

3.3.1 | Access and recruitment

Only 19 people from the entire Council participated in the programme. The participants, therefore, stressed the importance of informing directors of the different departments about the programme.

> [G4O]: 'I don't think that even the directors (knew); I am the director's secretary, and I manage his mail, so I think we have not been aware of the invitation, or it was not clear, or we have not been aware of that call…'

The participants also recommended drafting the invitation letter in a more natural and less formal language when disseminating information about the programme to arouse greater interest among the directors and participants.

> [G4O]: 'Put it in words more clearly, make it more appealing, but … I don't know, something like that, but be more direct, much more direct. Because if you start with flourishes, people lose interest.'

They also recommended providing information in person at the different departments, specifically by meeting with the directors and discussing the relationship between the programme and the activities of the Council, explaining the programme from the viewpoint of the government's interests and not only those of the public health department.

Finally, they recommended collaborating with officials who could move across departments to access interdepartmental researchers more easily.

> [M9S]: 'It would be good if that person had some knowledge of the municipal structure so he could… help move this process … A person with sufficient knowledge of the municipal structure, with some access to directors and chiefs of sections… because you may be able get there, but whether they will listen to you is a different story….'

3.3.2 | Lack of political representation

The participants attributed the lack of participation by political personnel in the programme to various reasons: politicians were not aware of the importance of working on this issue or

of the possible political benefits that participating in this programme could have. Participants also indicated that councillors generally had busy agendas; for this reason, they struggle to commit to activities that require continuous attendance and time investment.

> [G4O]: 'Due to lack of awareness, lack of interest … Due to lack of time, not knowing what impact it may have at the political level for them ….'

Furthermore, they pointed out that this was not the type of activity in which politicians generally get involved, as they tend to prioritize other dynamics, work that is more pragmatic, not very reflective, and does not involve team effort.

> [B5J]: '… The profile of the usual politician is, let us say, very pragmatic, right? So, reflective thinking is not … it is not typical of our politicians.'

Additionally, most activities of politicians are motivated by the benefits that they can derive from them. Health promotion strategies lack clear or immediate electoral results. Political lifetimes are too short for making progress in this area, even though their long-term benefits significantly impact society.

> [M2S]: '… on the one hand, they may want to achieve immediate political goals … They have their mandate; they want to set lines of action with a political payoff. Making changes to promote health strategies are long-term goals, not something with clear electoral results. In other words, it is something that will improve society, but is not likely to bring electoral returns in four years from now because implementing new systems … takes time.'

Participants insisted that the main arguments that could be used to convince politicians to participate in the programme should focus on the social benefits of and gains from participating to their public image. Further, they should focus on the votes they could garner through their commitment to health and well-being. For this reason, they recommended using strategies similar to those used in other cities that have successfully implemented health promotion programmes.

> [M2S]: '… sell the product (health promotion) by giving examples that they can understand, for example, "what has been done in a particular city and what has been achieved through this "… They need to see the profitability of the program, although this sounds very strong … something that they can then sell to the public, and through that garner votes and then this comes full circle, right?'

They also argued that the LG was still not ready to take a political gamble on health promotion as LG officials deemed it was outside their scope of competencies. Nevertheless, participation of political profiles was essential for developing the programme. The Council should include the PromoGOB programme in its health policy agenda so they could act to further improve it.

> [M9S]: 'I think when you talk to politicians about health, they avoid it… I mean, as if this is not their problem…. The Council is still not up on this yet. In other words, if the same program were to be proposed in ten years' time, things would be different …'

They suggested that information about the programme be gently introduced into the communication channels among councillors; the public health and environment councillor should not only act as a mediator but also try to convince their colleagues. However, they reported that the councillor in question was in charge of several other departments, and in matters of public health, it is the environment that took up most of his attention.

> [M9S]: 'You have to convince the health councilor to convince the other councilors. Once you have the councilor on your side, the job is done … but the environment is still his main concern; public health has always been integrated with environment… admittedly, we are in an era when the environment takes precedence over everything else, so if you have a councilor in charge of both issues, and one (public health promotion) is just starting … while the other becomes increasingly important, and requires more (attention) and more … well I believe that you must first convince the councilor… that it is imperative to promote health….'

3.4 | Acceptability of the programme

Participants were very satisfied with the programme, highlighting its usefulness in their work performance and recommending that other municipalities participate in the programme. In addition, they were satisfied with the materials used, especially with the video in the first session. However, they recommended that given the job roles of attendees, the second programme session be aligned with the departmental management plans, instead of with the government's plans. They also proposed adding one more session to the programme to focus on specific departments instead of adopting an intersectoral perspective.

The most valued aspects of the programme were the opportunity of sharing a space for reflection on this subject, and the way it was facilitated. Regarding the latter, they highlighted that integrating all sectoral perspectives was difficult as the programme included

different persons, visions and objectives, and that the facilitator had done this successfully.

4 | DISCUSSION

4.1 | Impact of the programme

PromoGOB was designed to increase the capacity for intersectoral approaches to health in the LG. In addition to identifying relevant feasibility issues and exploring acceptability, the mixed-methods evaluation showed that the programme had had a significant impact on three of the six key elements of participants' capacity (awareness about sectors' impact on SDH, their resources for health promotion and sector commitment); but also, on their perceived capacity. Furthermore, the results highlighted that awareness about the subject was a key element.

The results for awareness variable are in line with the responses provided by the participants, who attributed the increase in their perceived capacity to address health issues to greater awareness; this is also in line with the available evidence in this area, as reported by Fosse, Helgesen, Hagen, and Torp (2018) and Hagen, Torp, Helgesen, and Fosse (2016). These authors attributed the decrease in social inequalities in health in Norway to the increased awareness among city councils regarding their impact on the SDH. Similarly, in his examination of the facilitators of the development and implementation of health promotion policies at the local level, Weiss et al. (2016) reported that actions targeting SDH are insufficient or ineffective due to the complexity of SDH frameworks. Thus, understanding health from this perspective in the LG is necessary to raise awareness regarding their impact on health, and consequently, to improve public health (Weiss et al., 2016).

The significant changes in the resources variable and medium effect size may be related to the increased awareness about how sectors impact health (Helgesen & Hofstad, 2014). This may be due to governmental programme work, whereby participants identified departmental objectives that are likely to have an impact on health, thus promoting a sense of ownership and highlighting the association between resources and these goals, as shown in previous research (Hernantes et al., 2020).

Although greater awareness may have led to the identification of resources, factors such as the ability to put knowledge into practice using the resources identified and experience must also be considered in skills development. Skills development is thus closely related to departmental commitment to health promotion, as Keleher, Round, Marshall, and Murphy (2005) have pointed out. These authors have argued for the need to engage the directors in continuing the professional development of all those who work in this field and creating opportunities to improve their skills (Keleher et al., 2005). A recently published realist explanatory case study about HiAP facilitators at local government also supports this idea (Guglielmin et al., 2022).

The differences found between the variables of sectoral commitment and government commitment could be related to the characteristics of the participants, which had technical and administrative profiles, and whose field work was focused exclusively on their sector of origin. Furthermore, the contributions they made during the sessions were carried out from their respective sector. All this, together with the previously discussed variables, could have had an impact in sectoral commitment variable. However, government commitment, essentially related to the political field of the entire government, could have been poorly captured in the trial because there were no councillors, nor director profiles, participating in this study.

Overall, the significance of the increase in scores for variables such as awareness, resources and sectoral commitment must be highlighted. This is especially relevant considering that the study sample was small, which negatively affects the statistical power to detect significant differences (Bakker et al., 2019; Thiese, Ronna, & Ott, 2016).

4.2 | Programme implementation

In terms of the programme implementation, the duration of the intervention should also be highlighted. The systematic review by DeCorby-Watson et al. (2018) shows that the period of in-person interventions aimed at building capacity, based on the development of worker capacity, is generally more prolonged and requires greater investment of time. Furthermore, these interventions were implemented among healthcare and community experts who have better knowledge about these issues than the LG. Therefore, the programme's 6-h duration is a positive factor in terms of feasibility in an LG setting, particularly when considering the time investment required and the personnel costs associated with the programme.

To improve the programme, several issues must be addressed, starting with the absence of participation of political profiles. Participation of these profiles in programmes with this type of format is not common, as has been confirmed by authors such as Fosse et al. (2018) and Morrison et al. (2015). Collins (2012) and Kokkinen et al. (2017) have argued, because of the nature of the contents, politicians attribute health competencies to specific sectors traditionally related to healthcare system or health protection.

Parts of the programme may, therefore, be adapted for political and technical personnel. Based on the study by Steenbakkers, Jansen, Maarse, and de Vries (2012), this approach could increase the participation of political staff, without removing programme elements that have proven to be essential (for example, increasing awareness) for technical and administrative personnel.

Peters (2018) argues that involvement should be enhanced throughout the LG structure and that this was most likely to advance the interdepartmental approach to health. Ensuring the involvement of the directors of the departments in the programme is essential because they are designated by politically elected persons, and therefore occupy strategic positions that link the administrative and the

political spheres. Their involvement would be key in ensuring programme feasibility, as reiterated by authors such as Morteruel, Giné, Martín, and Bacigalupe (2019) and Keleher et al. (2005). Although the directors were invited to the initial briefing, only a few attended, so the transmission of information about the project to politicians and staff in their respective areas may have been limited. Efforts should be oriented to gain directors' attention and achieve their attendance to that briefing. Addressing health issues should not always entail an extra effort. Some of the activities included in departmental management plans might already be having an impact on SDH. Therefore, making the case for their participation through the ongoing plans might be a strategy to explore (Hernantes et al., 2020).

Another issue that should be addressed is the language used in the invitation to participate in the study. Choi (2005) and Ellen, Lavis, Horowitz, and Berglas (2018) report a lack of understanding, and sometimes even conflict, between the scientific and political spheres and recommends simplifying scientific language for efficient, rapid communication to obtain direct and realistic results in governmental settings. PromoGOB participants also argued in favour of simplifying the language.

In terms of materials used, the government programme was designed to promote a sense of ownership of health issues; however, given the nature of the participants, management plans of the various departments could be used to ensure sectoral involvement, as these are more closely related to departmental activity.

It should be emphasized that the findings of the logic model used confirm the key components outlined above. These components convey the mechanisms of change proposed by Molnar et al. (2016). Thus, the strong focus on participation, whereby the various sectors were represented, made it possible to enhance knowledge and develop a common language for health, because of the working group. Group activity and the role performed by the nurse acting as health broker were referred by the participants as mediators of awareness, which was key in creating a sense of belonging. In this study, interviews were carried out by the same researcher who facilitated the sessions. While this might potentially have had an influence on the interviewee's responses, findings from previous studies have corroborated the combined impact of team work and facilitation by Fosse et al. (2018) and Holt, Rod, et al., (2018). These authors also identified committees and coordinators as critical mediators of awareness.

In line with the above, Holt, Carey, et al., (2018) concluded that focusing on awareness, instead of structural or organizational changes, could be the most helpful strategy to advance intersectoral action. Nevertheless, research conducted by Lilly, Hallett, Robinson, and Selvey (2020) and Carey and Crammond (2015) indicate that the most important requirement for triggering intersectoral action is the organizational requirement. Taken together, these findings confirm the importance of the proposal to include all job roles in the programme, especially as there were no political representees.

According to the planned logic model, this absence could threaten the programme's long-term impact relating to the mandate to act and the creation of an action framework, which are both important components of capacity-building. As the process of change concerns governmental organization, political involvement should be considered for inclusion in the logic model as a key component. This determines the political process of change, the first stream proposed by Kingdon (1995), and is related to awareness. Raising awareness, as per the change model proposed by Kaluzny and Hernandez (1983), is crucial for building capacity of the entire administration responsible for implementing the mechanisms that are necessary for the realization of political decisions, and this happened as a result of participating in PromoGOB.

4.3 | The nurse as a health broker

Considering the importance of the awareness variable, the nurse who performed the health broker role must be highlighted.

Nursing lens allows to develop this role in a unique way mainly for two reasons. First, it allows to see things holistically, considering the person, population or community in the larger context; a context where specific health inequities occur (Disch, 2012). Nurses' role in capacity building for health promotion and the rich history of patient and community advocacy within the profession trigger the adoption of this role (Iriarte-Roteta et al., 2020; Kang, 1995; Lopez-Dicastillo et al., 2020; Williams, Phillips, & Koyama, 2018). Second, as Disch (2012) pointed out, the nursing lens also enables to create effective relationships to help people achieve their goals and do their very best; a perspective that needs to be applied in terms of intersectoral relationships.

Furthermore, many characteristics of the nursing discipline, such as the ability to effectively communicate, stablish relationships with and between agents, and problem solving and negotiation skills (Leavitt, 2009; Woodward, Smart, & Benavides-Vaello, 2016) are essential to perform the health broker role. Likewise, nurses have proved their capacity to create a common language related to health issues understandable from different perspectives (Lathrop, 2020). In addition, public health nurses have problem-solving skills, managerial skills, negotiating and influencing skills, capacity for advancing in community health diagnosis and knowledge in public health law and policies (Gephart, Davis, & Shea, 2018; Robertson & Baldwin, 2007; Swider, Levin, & Kulbok, 2015).

Evidence linking nursing and the development of this type of roles is starting to break through in this area (Gerrish & Lacey, 2008; Thompson & Schwartz Barcott, 2019). It has been pointed out that the deployment of this kind of brokers in the political arena, performed by nurses, could be key to advance in the reduction of health inequities and an opportunity for assuming a leadership role in addressing SDH and fostering HiAP approach (Thompson & Schwartz Barcott, 2019; Williams et al., 2018).

4.4 | Methodological discussion

As regards the methodology, the use of a complex intervention was suitable because it allowed us to resolve all underlying theoretical

complexities and focus on systems thinking, a theory increasingly in demand and integrated into the political sphere (Boswell, Baird, & Taheem, 2020; Haynes, Garvey, Davidson, & Milat, 2019). The intervention was evaluated using an integrated mixed-methods study design; quantitative data were collected using pre-test–post-test assessment and qualitative data through interviews. Although randomized clinical trials (RCTs) are the gold standard for quantitative evaluations, their use is increasingly being questioned in the area of health promotion for ethical and practical reasons (Minary et al., 2019). In this case, a more robust design would have been less feasible. During evaluation, qualitative data helped us assess the perceived capacity and the main related factors. These data also highlighted important factors relating to feasibility and acceptability, which are essential because they could affect the long-term impact of the intervention. However, further analysis is required to determine how they might influence the intervention, especially in the long term. Therefore, future studies with alternative designs should be conducted for a realistic evaluation of the long-term effects (Shankardass et al., 2018).

5 | LIMITATIONS

The study has some potential limitations. CaPSalGOB questionnaire was piloted but not validated. While the tool used requires further development, its use and identification of weaknesses are preferable to a complete absence of evaluation (DeVellis, 2017). The sample in the study was small and failed to achieve representation of political profiles and directors, who had both the capacity for decision making and the strategic vision of the sectoral departments. Also, some sectors failed to be represented in this sample and it must be considered that most of the participants had university education. Given the exploratory nature of the study, these issues identified offer guidance as to the kind of features that further studies should consider.

6 | CONCLUSION

This study has put the focus on structural determinants of health, strengthening intersectoral action for health promotion at local governments by workforce's capacity building, through PromoGOB programme. The available evidence around HiAP is mainly descriptive and exploratory; further, to the best of our knowledge, this is the first intervention study oriented to stimulate intersectoral workforce capacity to advance in healthy public policies. The key components of the programme, based on political process and organizational change theories for HiAP were essential, as well as intersectoral participation in the sessions and the brokering role of the nurse who developed the programme.

This study has identified promising trends, which should be replicated in subsequent studies using other evaluation designs, and ideally, more participants. Moreover, future research should address political issues and involve directive profiles.

Calls for nurses' involvement in the policy field are increasing, and this study exemplifies one of the roles that community and public health nurses could perform, leading the capacitation of one of the most relevant settings for local health promotion. The undertaking of such development from a nursing perspective is a novel and relevant contribution. Health brokers are starting to break through, and nurses should seize the moment to lead their performance. Thus, PromoGOB can be used as a starting point for nurses to get involved in the policy process of health promotion, performing a specific role, and delving into theories and concepts of the HiAP field.

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CONFLICT OF INTEREST

None.

AUTHORS' CONTRIBUTIONS.

The leading author is NH. All authors have contributed to the design and development of the study and the manuscript draft, KIØ has contributed to the data analyses. All authors approved the manuscript. EBM and AM were responsible for supervising the study.

ETHICAL ISSUES

The Research Ethics Committee of the University of Navarra approved this study.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the first author

ORCID

Naia Hernantes https://orcid.org/0000-0001-9277-5417
Elena Bermejo-Martins https://orcid.org/0000-0001-7040-3508
Kjell Ivar Øvergård https://orcid.org/0000-0002-4029-4344
María Jesús Pumar-Mendez https://orcid.org/0000-0003-3284-5588
Olga Lopez-Dicastillo https://orcid.org/0000-0001-7375-8072
Andrea Iriarte-Roteta https://orcid.org/0000-0002-6316-0795
Elena Antoñanzas-Baztan https://orcid.org/0000-0003-0556-6671
Agurtzane Mujika https://orcid.org/0000-0002-9470-1048

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