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Abstract

Community coalitions or inter-sectoral partnerships have long been advocated for the promotion of population health. In the present study, we assessed the quality of the functioning of health promotion partnerships created within a large community health promotion program implemented by the Emilia-Romagna region located in the north-east of Italy (2014-2016). In particular, we aimed to test the effectiveness of partnership working in strengthening participants' empowerment, sense of community and ultimately, the outcomes of a well-functioning partnership, conceptualized as including perceived effectiveness of health promotion interventions developed by the partnership, trust in their implementation and personal commitment in health promotion in the future. Participants were 238 stakeholders (e.g., health professionals, representatives of local administrations, teachers, representative of community and volunteer organizations, citizens) formally included in six partnerships lead by six major local health services. Using Bayesian structural equation modelling, we found that a higher perceived quality of collaboration within the partnership enhances the outcomes of a well-functioning partnership, by strengthening their sense of a health-promoting community and empowerment. Sense of community responsibility did not predict future commitment in health promotion. The study findings suggest that community members' ownership and feeling of responsibility, as well as empowerment constitute positive partnership processes.

Keywords: partnerships, community coalitions, sense of community, empowerment, health promotion

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Community participation is considered the basis of successful health promotion and can be loosely defined as the involvement of citizens in projects, from the earliest stages of the development process, to solve their own problems (WHO, 2013, 2015). The majority of collaborative relationships for health promotion and disease prevention are called partnerships or community coalitions (Brown, Feinberg, & Greenberg, 2011; Butterfoss, 2007; Foster-Fishman, Berkowitz, Lounsbury, Jacobson, & Allen, 2001) and serve as catalysts for changes in programs, policies, and practices throughout the communities, by enabling them to better address their issues of concern. The delivery of health promotion interventions through community coalitions or partnerships has long been advocated in order to ensure the prerequisites for health (WHO, 2013, 2015) and has become a widespread feature of community-based health promotion approaches in the last decades (Green & Kreuter, 2005), particularly within community health psychology (Campbell & Murray, 2004; Hausman, Becker, & Brawer, 2005; Murray, Nelson, Poland, Maticka-Tyndale, & Ferris, 2004).

There is evidence that coalitions or partnership initiatives (the two terms are used interchangeably in this context) are effective in tackling the broader determinants of health and well-being in a community, as well as in promoting health-related behavior change (Gillies, 1998) and health outcomes (Butterfoss, 2007; McNeish, Rigg, Tran, & Hodges, 2019). Partnerships generally entail a multiplicity of interdependent agencies and organizations from different sectors (e.g., health services or hospitals, local government offices, civil society organizations, voluntary agencies, universities, educators, concerned communities and citizens) that have a stake in the development of community health action. The rationale behind community health partnership working is that no single organization has full control over all the determinants of population health,

and hence, the opportunity of pooling resources and competences from multiple sectors to adequately face them. In several countries, including Italy (Zani & Cicognani, 2009), partnership working is a requirement within social welfare and health policies, which strongly encourage the involvement of all relevant community actors and stakeholders in the planning and delivery of interventions.

Several advantages of working in partnerships or coalitions have been highlighted. In terms of health promotion outcomes (e.g., improving healthy lifestyles, reducing health compromising behaviors), partnerships are assumed to improve the quality and sustainability of interventions. Further benefits are emphasized for the quality of the process for those involved. For instance, we may mention the enhanced understanding of the different professional roles, the creation of a shared culture and sense of belonging to the partnership, the enhancement of members' empowerment and competences in implementing interventions in the communities (Butterfoss, Goodman, & Wandersman, 1993; Dowling, Powell, & Glendinning, 2004; Green, Daniel, & Novick, 2001; Wolff, 2001). Working in partnerships also helps to create more supportive social and community contexts, which enable and support health enhancing behaviors by increasing community members' sense of ownership and responsibility toward health promotion (Green & Kreuter, 2005).

A debated empirical question is how to assess the quality of partnerships working and the processes through which they sustain effective interventions (Aveling & Jovchelovitch, 2014; Granner & Sharpe, 2004) in community-based health projects. Partnership working requires mutual trust, respect, collaboration and communication between actors often not familiar or who have not previous experience of collaboration, who generally differ in resources, competences, knowledge/ understanding of the issue, experience, status/power, who bring different expectations and interests (Corbin, Jones, & Barry, 2018). To function effectively, they need to work as interdependent members, negotiating such differences to generate new shared knowledge, visions and strategies

(Cornwall, 2008); this requires sufficient flexibility and capacity of reflection on actual practice. Quality of communication is important for the optimal functioning of the partnership (Corbin et al., 2018). Open communication among members is associated with participation, satisfaction, positive relationships, effectiveness (Kegler, Norton, & Aronson, 2007), community ownership, as well as increased effectiveness and sustainability of interventions (McNeish et al., 2019). Although it takes some time to nurture relationships, when facilitated effectively, collaborative work can enable more systemic ways of working towards health promotion and community development. Outcomes of partnership working (e.g., whether it turns out to be a truly empowering process for all members, promoting greater individual and social awareness and collective ownership of health problems of the community), thus, depend also on the quality of collaboration among members.

In the present study, we argue that trust, commitment and perceived efficacy are outcomes of a well-functioning partnership. Specifically, we refer to members' trust in health promotion interventions' implementation, their perceived effectiveness in improving community members' health, and commitment in health promotion in the future. Trust is positively associated with health partnership performance (Jones & Barry, 2011) and can be considered helpful for monitoring health promotion partnership functioning (Corbin et al., 2018; Jones & Barry, 2016). Qualitative studies (Estacio, Oliver, Downing, Kurth, & Protheroe, 2017) revealed that commitment to promoting health is also associated with effective partnership in community-based health promotion. According to social cognitive theory (Bandura, 1986), perceived efficacy is the core belief in the foundation of human agency because it is thought to affect how people behave not only directly but also indirectly through outcome expectations, goals and aspirations, commitment and effort they put forth in a given endeavour. Therefore, we argue that members' perceived effectiveness of health promotion projects in improving community members' health is a key outcome of a well-functioning partnership.

Processes in well-functioning partnerships: Sense of community and Empowerment

In this study, we focus on sense of community and empowerment as psychosocial processes generated by a well-functioning partnership. We briefly review the constructs of sense of community and empowerment in health promotion and introduce the idea that a well-functioning partnership would enhance members' sense of community and empowerment, that in turn could increase members' trust in health promotion interventions implementation and their effectiveness and their future commitment in the partnership.

Sense of community

The concept of sense of community has been used in a variety of studies investigating the experience of belonging to different types of communities, including residential ones (e.g. Brodsky & Marx, 2001; Chipuer & Pretty, 1999; Long & Perkins, 2007; Peterson, Speer, & McMillan, 2008), schools/universities (e.g. Prati, Cicognani, & Albanesi, 2017; Pretty, Conroy, Dugay, Fowler, & Williams, 1996; Townley et al., 2013), workplace (e.g. Cicognani, Palestini, Albanesi, & Zani, 2012; Cicognani, Pietrantoni, Palestini, & Prati, 2009; Klein & D'Aunno, 1986), faith-based communities (Miers & Fisher, 2002), and internet communities (Obst, Smith, & Zinkiewicz, 2002).

Empirical studies indicated that a high sense of community is generally associated with positive outcomes, including engagement and participation in community settings (Talò, Mannarini, & Rochira, 2014) and influences community readiness through its impact on coalitions functioning and their sustainability (Feinberg, Chilenski, Greenberg, Spoth, & Redmond, 2007). Communities with a strong sense of community may more easily engage in partnerships because residents believe that their needs can be met through joint efforts (Armenakis, Harris, & Mossholder, 1993). Powell and Peterson (2014) found that sense of community was a significant predictor of perceived effectiveness of coalitions for substance abuse prevention. We assume that, to the extent that members of the partnership are collaborating effectively in view of the shared goal of enhancing

health, they will come to perceive themselves as a community (Campbell & Jovchelovitch, 2000), developing a shared sense of belonging and a shared ownership and responsibility in health promotion (Treitler, Andrew Peterson, Howell, & Powell, 2018).

Recently, Nowell and Boyd (2010, 2014) proposed sense of community responsibility (SOC-R) as complementary to Sense of community (SOC), arguing that the traditional conceptualization of sense of community on which most existing research is based provides only a partial representation of participants' experience of community. According to the authors, sense of community has been conceptualized and measured in terms of the extent to which a community is perceived as a *resource* for fulfilling individuals' important psycho-social or physical needs (e.g., needs for belonging, influence, and connection). A complementary important dimension of the construct, according to the authors, is community members' feeling of personal *responsibility* for the individual and collective well-being of a community of people not directly rooted in an expectation of personal gain but representing feelings of obligation and duty to protect and enhance the well-being of such community and its members. Such dimension is defined as sense of community responsibility (SOC-R). Nowell and Boyd (2010) posit that SOC-R, with its emphasis on the desire to create psychological congruence between identity and behavior, will have a relatively stronger direct effect on engagement with a community compared to SOC.

Nowell and Boyd (2010, 2014) tested the two dimensions of SOC (sense of community as a *resource*, or SOC, and sense of community as *responsibility*, or SOC-R), in a study on community collaboratives (groups comprised of leaders from organizations, agencies, and community groups who meet regularly to improve community capacity to respond to a common issue) and found support for their distinctiveness.

Empowerment

Empowerment, in general terms, concerns individuals and communities increasing control and gaining mastery over their lives (Perkins & Zimmerman, 1995). In the field of health promotion, psychological empowerment has been defined as the process of enabling people to increase control over, and to improve, their health and it has been used as a framework to guide numerous studies of community-based participation and health promotion interventions (Powell & Peterson, 2014).

Empowerment, even in the field of health promotion, can be understood as the acquisition of knowledge, skills, and capacities like critical awareness and problem-solving that may affect citizens' health through engagement in partnerships and collective participation. Peterson and Zimmerman (2004) extended the definition of empowerment including an organizational component, that refers to the efforts by community-based groups and organizations to influence the larger environment of which they are part. Strategies may include technical assistance, collaboration with leaders and members of community to enhance their capacity to identify and use the skills and resources of both individuals and organizations in the local community.

The health promotion program "Gaining health in community contexts"

In order to locate the experience of community health promotion examined in this paper, it is useful to first clarify some characteristics of health promotion in the Italian context. The Italian health care system is characterized by a public-private mix. The public part is the Italian National Health Service which is regionally based and administered at the national, regional, and local levels. The nineteen regions and two autonomous provinces organize and deliver health care through Local Health Services (LHS).

The present article focuses on a health promotion program implemented in Emilia-Romagna region entitled "Guadagnare Salute in contesti di Comunità" (Gaining health in community contexts) with the aim to promote healthy lifestyles, reduce health inequalities, and involve local

communities in health promotion through participatory methodologies, inspired by a community health promotion approach. Specifically, the program targeted four key aspects of healthy lifestyle: healthy eating, physical activity, smoking and alcohol consumption. The "Passi surveillance system 2013-2016 of Emilia-Romagna Region"[1] showed that 33% of men and 25% of women smoking with strong socioeconomic differences; one adult in five drinks too much alcoholic beverages; one child in three has excess weight and one in five adults are insufficiently physically active. The Program was based on the following key pillars: the adoption of a socio-ecological approach to health needs assessment and intervention; the aim to enhance participation at each level of the Program, including the regional (policy/political) level and the level of the communities in which health promotion projects are developed and implemented; the valuing of local, bottom-up experiences of health promotion with the double aim to improve the quality of local services and their actions and promote health in a more effective, integrated and innovative way. Consistently with these pillars, the Emilia-Romagna region decided to co-design a public call for projects, leading to the selection and funding (from 2013 to 2016) of six inter-sectoral and community-based health promotion projects. Main criteria for selection of projects in order to be funded were the following: a duration of at least two years; the involvement of two or more LHS and communities of at least 10,000 inhabitants; the adoption of an integrated approach to the health determinants identified by the ministerial program *Gaining Health*[2] (covering four subject areas: nutrition, physical activity, smoking and alcohol consumption); work in partnerships with relevant stakeholders and actors of the community (local administrations, educational institutions, community organizations, third sector, etc.), including citizens; ensuring equity and sustainability of the projects, beyond their formal duration. To further strengthen the mobilization of community

[1] https://www.epicentro.iss.it/passi/dati/temi
[2] http://www.ccm-network.it/pagina.jsp?id=node/846&lingua=english

assets and existing resources in view of the projects' goals and make the projects sustainable it was established to limit the amount of funding provided to the LHS. To be involved in the collective, relevant stakeholders and actors of the community were contacted in different ways: through the professional body, through key persons, through advertisements, and through local organizations. Relevant stakeholders and actors of the community were asked to participate for the duration of the project (at least two years). Given that not all community members and stakeholders were involved in all the activities of the project, at the beginning of the different meetings they received regular updates on project progress and achievements.

Aims and hypotheses

The aims of the current study were to test the influence of the quality of collaboration within the partnership on participants' empowerment, sense of community and, ultimately, on the outcomes of perceived effectiveness of health promotion interventions developed by the partnership, trust in their implementation and personal commitment in health promotion in the future. Specifically, we expected that a stronger perception, by participants, of a well-functioning partnership within the program "Gaining health in community contexts" would enhance their sense of community and empowerment in health promotion. Further expectations were that empowerment would significantly enhance participants' perceived effectiveness of the interventions developed by the partnerships. Sense of community was expected to enhance both trust in project implementation and its effectiveness and personal commitment in health promotion in the future. As regards sense of community, we defined as relevant "community" in this study the health promotion partnership created within the process of health promotion planning and implementation. Consistently, we assessed sense of belonging to a community that is promoting health (SoC-P). Moreover, we included sense of community responsibility (SoC-R) referred to the health promotion partnership.

Method

Participants and Procedure

All procedures performed in the current study were in accordance with the ethical standards of the Italian Association of Psychology and with the 1964 Helsinki declaration. The sample for this study included members of different community health partnerships created to implement community-based health promotion projects supported by the Italian Region Emilia Romagna (2014-2016) and lead by the six major Local Health Services (LHS).

The data were collected through a web-based survey after one year from the beginning of the partnership. Participants were identified based on the following criteria: being stakeholders or citizens formally included in the co-design of the projects and/or having been involved in specific actions implemented within the projects with an active role in health promotion toward the community (e.g., training courses for community health educators, laboratories, etc.). Their names and contacts (email and phone) were provided by the responsible persons of the projects (Heads of the Public Health Departments of the six LHS); each potential participant was sent an email explaining the aim of the study ("evaluate the project and collect participants' opinions on their experience with the project") and asking consent to participate in the research. The email included also the link to the questionnaire. Before completing the questionnaire, participants were informed that the submission of the form indicated consent to participate in the research. The email was sent to the full list of contacts received (N = 578).

The final sample included 238 participants (41.2% of the contacted persons). Of these, 65.1% were females. Mean age was 51.13 years (SD = 11.66). The age range of participants was 18 to 83 years. In terms of occupational categories, 40.1% of participants were involved in the projects as health professionals[3], 9.7% were teachers; 10.5% were representatives of the local

[3] The background of health professionals was as follows: medical doctors, 46.5%; health assistants, 13.1%; nurses, 9.1%; dieticians, 8.1%; administrative personnel, 7.1%; psychologists, 3.0%; biologists, 2.0%; while the remaining participants reported other professional background.

municipalities; 15.6% were representative of community and volunteer organizations[4], while 17.3% were citizens. Concerning the education level of the participants, 5.0% had completed middle school, 31.0% had completed the secondary level (high school), 49.2% had a university degree, and 14.8% had completed the second stage of tertiary education.

Participants in the projects were involved the following activities, playing different roles: local working groups (30.70%), working groups set up to carry out specific project actions (26.90%), thematic local work group (25.60%), participants in an evening / information meeting (24.40%), in a training course promoted within the project (18.90%), in workshops (16.80%). Most participants (63.8%) were engaged within the scope of their own professional activity while 36.2% in their leisure time. Regarding previous experiences in health promotion projects, 57.14% of respondents said they had already participated in health promotion projects. Of these, 81% clarified that this experience was different from the previous ones; the main differences concerned first and foremost the working method (42%), the community of reference of the intervention and the aims and objectives (both 21%), while only 4% answered "other."

To determine if participants represent the respondent group overall, we compared respondents and non-respondents. The occupational categories of respondents and non-respondents were only slightly different, χ^2 (4) = 13.93, p = .008, V = .15. Standardized residuals (-2.49) indicated that representatives of the local municipalities were less likely to participate in this study, whereas there was no difference in the remaining occupation categories between respondents and non-respondents (i.e., the value of standardized residuals did not exceed ±1.96). Female participants were slightly overrepresented in the present sample, χ^2 (1) = 5.72, p = .017, V = .10.

Measures

[4] The most involved associations were: 48,39% sport clubs, 19,45% elderly's associations, while the remaining are cultural, environmental or religious associations.

In addition to gender and age, the questionnaire included the following measures.

Quality of collaboration within the partnership (QCP). It was measured using a shortened and adapted version of the Index of Interdisciplinary Collaborations (IIC; Mellin et al., 2010) measuring participants' self-reported sense of the quality of collaborative exchanges between professionals working in interdisciplinary settings. The instrument has been developed to assess professional interactions with the aim to improve services for citizens. We used 16 items assessing four dimensions of collaborative exchanges: interdependence (occurrence and reliance on interactions where all members are dependent on the others to reach their goals; 5 items, e.g., "the group supported its members in health promotion activities"), reflection on process (members' attention to the process of working together); 5 items, e.g., "the group (formally or informally) assessed how members work together"); flexibility (deliberate occurrence of role blurring; 3 items, e.g., "group members respected each other when they had different opinions on how to promote health") and newly created professional activities (activities that amount to more than what is created when the same members work independently; 3 items, e.g., "differences in members' opinions generated new ideas for health promotion interventions"). Participants responded by thinking to the meetings they participated within the Community Based Health Promotion Project. Response alternatives ranged from 1 = *not at all* to 4 = *a lot*. Factor analysis resulted in one factor; Cronbach's alpha was .90.

Empowerment. It was measured using ten items developed ad hoc for this study (e.g., "Based on your experience, to what extent your participation in this project has … improved your knowledge on healthy lifestyles; improved your knowledge of the community where you live"). The instrument was intended to measure empowerment in the field of health promotion partnerships. Response alternatives ranged from 1 = a lot, to 4 = not at all. Cronbach's alpha was .87.

Sense of community responsibility (SOC-R). It was measured with the instrument developed by Nowell and Boyd (2014), including six items (response from 1 = *not at all* to 5 = *completely*). Participants were asked to respond by referring to the health promotion partnership in which they were involved (e.g., "Thinking to the group(s) in which you have been involved in this project, to what extent did you experience…. a feeling of sense of responsibility for the well-being and success"). Factor analysis confirmed the one-factor structure of the instrument; Cronbach's alpha was .90.

Sense of community promoting health (SOC-P). We assessed sense of community considering as "referent community" the health promotion partnership. To this purpose, we adapted five items drawn from existing scales (Chiessi, Cicognani, & Sonn, 2010) and capturing the different theoretical dimensions of the construct of SoC (e.g., "Participation in this project contributed to make me feel member of a community that promotes health" – Sense of belonging; "This project showed that people can work together to improve things in the community" – Opportunities for influence). Response alternatives ranged from 1 = *not at all*, to 4 = *a lot*. Factor analysis on the scale revealed one factor; Cronbach's alpha was .84.

Outcomes of partnership working. We included the following measures: Perceived efficacy of the Community Based Health Promotion Project (CBHPP Efficacy), commitment in health promotion (Commitment), and trust in its implementation (Trust). We measured perceived efficacy of the project with the following item: "To what extent do you think that the activities of the project will improve citizens' health?". To measure trust in the project implementation we asked participants "To what extent do you think that the activities developed within the project will be implemented?". Finally, we measured commitment in health promotion using the following item: "To what extent do you intend to continue engaging in health promotion projects in the future?". Response alternatives ranged from 1 = *not at all*, to 5 = *completely*.

Analyses

Descriptive analyses and correlations were conducted using SPSS 24. We used full-information maximum likelihood (FIML) methods to deal with the missing data. We tested our model using structural equation modelling (SEM). One of the advantages of SEM compared to other methods of analysis is that it allows testing simultaneously the structural model of relation between the constructs examined and the measurement model (the relations between measured indicators and their latent theoretical variable). Each item was required to load only onto its theoretical variable. Errors (or uniqueness) across indicators were not correlated. To test the hypothesized mediation model, Quality of collaboration within the partnership (QCP) was inserted as independent (exogenous) variable. Sense of community responsibility (SOC-R), Sense of community promoting health (SOC-P) and Empowerment were inserted as (endogenous) mediator variables. The outcomes were included as the dependent variables. Indicators of the latent variables were assumed to depend on their single latent variable. Based on modification index, some errors (or uniqueness) across indicators of the same latent variable were allowed to correlate. In the current study we used the structural equation modelling software IBM SPSS AMOS v.24. Bayesian estimation was used in our model. To evaluate the quality of the fit of the model, we used the posterior predictive p-values (Lee & Song, 2004). A model is considered plausible when the posterior predictive p-value is near .50 (Gelman et al. 2013). As path coefficients, we used the median of the posterior distribution for the point estimate, and the percentile-based 95% credibility interval. AMOS 24 was used to test the hypothesized mediation model, where SOC-R SOC-P, and empowerment mediate the relation between QCP and outcomes of our study. We used Bayesian mediation analysis to test for the significance of the indirect effect, as recommended by Yuan and MacKinnon (2009). The significance of the effects at the .05 level is supported if the 95% Bayesian credible interval (CI) for the estimates exclude zero.

Results

Table 1 shows descriptive statistics and correlations between key-variables. No significant differences according to participants' age and gender in the variables were found. As regards intercorrelations among key study variables, all the correlation coefficients were positive and significant. The correlation coefficient between the two dimensions of sense of community (r =.49, p <.001) indicated that they are distinct dimensions of the construct. Figure 1 shows the standardized coefficients of the model under analysis. Regarding the fit of the model, the posterior predictive p-value was .50 which indicates that the model was plausible, that is, the discrepancy between data generated by the model and the actual data was negligible. The path coefficients of QCP on SOC-R, SOC-P and Empowerment were significant, like the path coefficients from SOC-R and SOC-P to CBHPP Efficacy (Figure 1). The Bayesian analysis showed that the indirect effect of the quality of collaboration within the partnership through empowerment, SOC-R, and SOC-P on CBHPP Efficacy was .55 (95% CI = .46, .64). The indirect effects of the quality of collaboration within the partnership through SOC-R and SOC-P on commitment and trust were .36 (95% CI = .25, .47) and .47 (95% CI = .37, .56), respectively. As the confidence interval did not include 0, we can conclude that all the indirect effects were significant.

Discussion

Working in partnerships is considered an essential condition to deliver more effective and sustainable health promotion interventions (Campbell & Murray, 2004; Murray et al., 2004; WHO, 2013, 2015). The advantages that are recognized to coalitions and partnership for health promotion include better management of resources, more effective delivery of services, increased operational and innovation capacities and community ownership and sustainability of the intervention (McNeish et al., 2019). More importantly, they represent a response to the complex and multifaceted problems that cannot be tackled by any individual organization working alone. Despite

the many advantages of working in partnerships, they also have to deal with several challenges, including overcoming barriers to collaboration that may be embedded in organizational cultures and power relationships.

This study addresses a gap in the literature related to limited information on the factors and processes that may explain the quality of partnerships; in fact, we lack suitable indicators to assess well-functioning health promotion partnerships. Most studies relied on qualitative evaluations of specific case studies (e.g., Eriksson, Fredriksson, Froding, Geidne, & Pettersson, 2014; Estacio et al., 2017) and did not consider the role that developing a sense of community may play, giving more attention to other processes, like leadership management and negotiation procedures (Stolp et al., 2017). Only few studies (McNeish et al., 2019; Powell & Peterson, 2014) have recently addressed the role of sense of community in perceived effectiveness of community coalitions, providing evidence that sense of community is a key process in enhancing the perception of coalition effectiveness. These studies supported some theoretical assumptions of the community health psychology perspective (Campbell & Murray, 2004; Hausman et al., 2005; Murray et al., 2004), based on which strengthening the quality of relationships among community members, citizens' empowerment and responsibility in addressing health problems and health related challenges are important conditions for improving the quality and sustainability of interventions and population health. Thus, promoting well-functioning partnerships is itself an important aspect in the overall process of health promotion planning and implementation (Green & Kreuter, 2005).

Results of this study showed that well-functioning health promotion partnerships was related to members' sense of belonging to a community which cares about (and feels responsible for) citizens' health. Moreover, participating in a well-functioning partnership was associated with members' sense of empowerment in health promotion in the community. Finally, sense of empowerment in health promotion was related to the perception of the effectiveness of the

interventions in reducing unhealthy lifestyles and conditions. In their study on partnership working between community and statutory organizations within two Healthy Cities initiatives, Stern and Green (2005) acknowledge that empowerment was a by-product resulting from the interaction of the partners with the authorities. The findings of the present study are consistent with those of Powell, Gold, Peterson, Borys, and Hallcom (2017) and suggest that the role of empowerment in a partnership deserves more attention.

In the present study, we found that the feeling of belonging to a community that promotes health was the most important variable in predicting CBHPP efficacy, commitment, and trust. This result is the main novelty of the study. From a theoretical point of view, our study provided evidence that sense of community referred to health promotion partnerships that have as their main object of interest the promotion of community health is different from sense of community responsibility. We found a differential association with CBHPP efficacy, commitment, and trust as well as support for their distinctiveness, consistently with other authors (Treitler et al., 2018). Although sense of community responsibility correlated significantly with future commitment, it did not predict future commitment when the effects of empowerment and sense of community promoting health were included in the model. Given that the effect of sense of community promoting health on commitment was large, it may have suppressed the influence of sense of community responsibility on commitment. Sense of community responsibility may have an effect on commitment at the moment as was found by Boyd (2014); however, future commitment seems to depend on the feeling of belonging to a community that promotes health, suggesting that sense of belonging can support long term engagement in health promotion.

This study has implications for the theory of health promotion partnerships. To our knowledge, there is no theory of health promotion partnership that include sense of community and empowerment of coalitions' members. For instance, the Bergen Model of Collaborative

Functioning (Corbin & Mittelmark, 2008) is one of the few theoretical frameworks which received empirical support from diverse health promotion initiatives (Corbin et al., 2018). The findings of the present study suggest that this model would benefit from the inclusion of sense of community and empowerment among the constitutive elements of the collaborative process.

The present study has several limitations which must be noted. First, we must acknowledge that the retrospective and cross-sectional approach did not provide evidence for causality. The present study provided evidence for further long-term prospective research that would link quantitative evidence of partnership effectiveness on health outcomes with observed changes in sense of community and empowerment. Second, the partnerships examined in this study were still in the process of developing and implementing interventions and we do not have information on the outcomes of the collaborative health promotion project in terms of community members' health. Such outcomes require more time to be detected from epidemiological evidence; moreover, there are other factors that may impact on population health that should be accounted for.

Nonetheless, the findings support the usefulness of the constructs of sense of community and empowerment as indicators of the quality of the group processes and dynamics that characterize the working of interdisciplinary and intersectoral partnerships. Well-functioning partnerships can create the conditions for enhancing members' competences and resources for addressing community members' needs, as well as improving knowledge and networking with community members (both organizations and individuals) which have a stake in health. From this perspective, strengthening community members' ownership and feeling of responsibility, as well as empowerment, both important processes and intermediate outcomes, is important in view of the ultimate goal of improving citizens' health.

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