


Barriers to and ways of facilitating the implementation of Aragon's Health-Promoting School network

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Abstract

Background: The Health-Promoting School (HPS) framework offers a comprehensive approach to promoting health in schools. Aragon's HPS network is a local organisation which has identified the need for closer cooperation between the education and health sectors as the main challenge facing its programme.

Objectives: Previous studies from countries implementing HPS approaches have identified various outcomes and challenges. However, there is insufficient evidence to identify potential barriers to the HPS implementation in Spain. This study therefore set out to explore these issues within the context of the HPS network in Aragon.

Method: Three focus groups were held in different cities (Zaragoza, Huesca and Teruel) between April and May 2020. The total sample comprised 18 adults ($M = 45.21$; $SD = 12.61$), 60% of whom were men. Eleven participants were HPS stakeholders (i.e. teachers, HPS coordinators) and seven were external collaborators (e.g. university professors, researchers).

Results: The main barriers identified were the excessive workload for professionals involved in the network, limitations imposed by contextual factors such as lack of teacher and family involvement, and lack of supervision and communication within the HPS network. Strengthening collaboration with work in other settings, the provision of continuing education for teaching staff and more systematic evaluation were identified as potential ways forward.

Conclusion: Using the principles identified in this paper, Aragon's HPS network should be further developed to enhance effective implementation and improve sustainability.

Keywords

Evaluation, health-promoting schools, intervention, network, qualitative research

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Introduction

The Health-Promoting School (HPS) is a promising framework through which to develop a comprehensive approach to promoting health in schools. An HPS is a school that constantly strives to strengthen its role as a setting for healthy living, learning and working (Barry et al., 2013). The concept engages with some of the fundamental principles in the Ottawa Charter for Health Promotion (World Health Organisation [WHO], 1986). Thus, health-promoting schools differ substantively from other types of provision such as health education in allocated class time (to help students develop knowledge, attitudes and skills needed for healthy choices); a focus on school ethos or environmental approaches in the form of policies and activities that go beyond the curriculum to promote healthy values and attitudes within school; and/or family and/or community engagement (activities engaging families, outside agencies and/or the community). The HPS framework implies a close relationship between health, school and the broader school environment (Karkada and Pai, 2016). HPS approaches promote health and learning by seeking to engage students, teachers and community leaders in activities to make the school a healthy setting (Viig and Wold, 2005). The HPS concept also highlights community participation as integral to the success of health-promoting interventions. Studies have reported that ownership, leadership and collaboration are critical to improving school health (Jamra et al., 2014).

In 1991, the European Network of Health Promoting Schools (ENHPS) was created to promote healthy lifestyles in the school population (WHO, 1993). In 2008, the Schools for Health in Europe (SHE) network was formed with support from WHO (EURO), the Council of Europe and the European Commission (International Union of Health Promotion Education [IUHPE], 2009; Turunen et al., 2017). Spain belongs to the SHE network but lacks a national network, so each region has created its own. One of these is the HPS network in the region of Aragon in northeast Spain (Aliaga et al., 2016). This network recognises and supports schools that prioritise health and well-being as part of the educational curriculum and encourages the development and dissemination of well-conducted interventions and specific activities (Aliaga et al., 2016). In the 2021–2022 academic year, 181 accredited primary and secondary schools were involved in the work of the network. Thirty of them are private schools, and the remainder are public schools. Together, they represent 20.4% of Aragon's total primary and secondary schools (Gobierno de Aragón, 2021). In addition, 80.5% of teaching staff, 62% of non-teaching staff and 90.2% of school students participate in the network. The intervention programmes implemented in schools focus on the following areas of interest: life skills, physical activity and nutrition (Gobierno de Aragón, 2021).

Although the HPS approach was introduced over 25 years ago and has been promoted internationally ever since, the aspiration of establishing a fully sustainable HPS network has not yet been achieved, and very few countries have implemented the approach at scale. For an HPS approach to be sustainable, intersectoral work is needed locally to establish a co-responsibility for health and education (Farias et al., 2016). The ENHPS (International Planning Committee of the ENHPS, 1999) strongly advocates cooperation between the health and education sectors as well as between these sectors, other parties and participating schools. To this end, a collective effort by a variety of players is necessary to develop a comprehensive and integrated approach (Tooher et al., 2017).

In order to be successful, complex systems interventions, such as the HPC approach, require a network of stakeholders working at different levels. **[AQ: 2]** However, lack of effective communication often limits network functioning (Rosas, 2017). The ENHPS has indicated that bringing schools, teachers and principals together as part of a network may strengthen the development of health-promoting schools by facilitating the exchange of ideas and experiences (Rivett, 2005).

Networks have the potential to facilitate the flow of knowledge to address the complex coordination challenges that can arise within an HPS initiative (Rosas, 2017). In Norway, the HPS network has argued that successful networking is closely linked to teacher participation (Viig et al., 2010). Being involved in a network can strengthen collaboration and learning in a manner informed by the experiences of other schools and teachers working with the HPS framework (Gugglberger and Dür, 2011; Viig et al., 2010).

Sustaining health interventions at a population level is fraught with many challenges that must be addressed. As pointed out by Herlitz et al. (2020), no school-based intervention had been sustained in its entirety after external funding or support ended, and no clear relationship exists between intervention effectiveness and sustainability. These same authors identified several barriers to success, including the availability of resources and clear focus on educational outcomes. The latter has been described as a problem, as teachers often perceive health-related actions as supplanting the time needed for teaching core subjects, such as mathematics or reading (Friend et al., 2014). For this reason, HPS are usually organised using a multidimensional approach that focuses on the school curriculum (giving students knowledge and skills to promote physical and psychosocial health), the school climate (with a focus on the school's physical and social environment), and social and/or community interaction (Deschesnes et al., 2014). The most important challenges identified in work to date include the mobilisation of human resources to implement the initiative and the inclusion of policymakers; the public, private and non-governmental sectors; as well as students, their parents and teachers in the initiative (Ippolito-Shepherd et al., 2005). Other barriers such as a lack of finance and time allocated to health promotion are stumbling blocks for implementation efforts, as is the quality of leadership in implementing HPS interventions (Friend et al., 2014; Viig and Wold, 2005).

To summarise, the literature highlights the importance of a comprehensive integrated approach to implementation which involves systematic planning, leadership and management, as well as action to improve the educational development and progress of children and adolescents (Ministry of Health and Family Welfare of India, 2018). Among the key elements that characterise an effective HPS response are good school policy, a clear focus on the physical and social environment, stakeholders' individual skills and competences, and easy access to community health services (Hung et al., 2014). In most countries, the priority given to health promotion in and through schools is low, and teachers are neither sufficiently prepared nor motivated to continue delivering the work in rapidly changing circumstances (Herlitz et al., 2020). For this reason, the provision of good quality teacher training and enhanced awareness of the educational value of health education are two of the main challenges to be confronted in the future (Herlitz et al., 2020; Jourdan et al., 2008; Langford et al., 2014).

Work with HPS network in Aragon (Aliaga et al., 2016; Gobierno de Aragón, 2021) has revealed strengthened cooperation between the education and health sectors as a key challenge to be addressed. For this reason, the objectives of the present study were twofold. The first was to examine perceptions of barriers by five stakeholder groups (primary and secondary school teachers, researchers, education and health administrators, and training centres) involved in implementing Aragon's HPS network. The second objective was to investigate the solutions proposed by different stakeholders to the problems identified within this network.

Methods

This study adopted an broadly interpretive approach, and discussion groups were used to collect the data. The Comité de Ética de la Investigación de la Comunidad Autónoma de Aragón (CEICA) approved the research procedures (Reference: PI20/357).

Table 1. Participants.

Stakeholder category	Number of participants	Experience in HPS	HPS stakeholders	External agents
Primary school teachers	2	✓	✓	No
Secondary school teachers	3	✓	✓	No
University teachers and researchers	4	No	No	✓
Education and health administration employees	2	✓	✓	No
HPS coordinators	4	✓	✓	No
Educational training centres	3	No	No	✓

HPS: Health-Promoting School.

Participants

HPS stakeholders and external experts were selected to participate in this study so as to combine the practical experience of stakeholders with the more and theoretical perspectives of experts in health and education research. The total sample size was 18 adults ($M=45.21$; $SD=12.61$), 60% of whom were men. Participant selection was influenced by accessibility and availability. Participants had to (1) be part of Aragon's HPS network or have a background in health promotion and education (i.e. research or training) and (2) have participated in health-promotion programmes or educational networks. Selected individuals received information about the study by e-mail before providing consent. Table 1 describes the characteristics of those who participated.

Data collection. Three discussion groups took place, one each in Zaragoza, Huesca and Teruel. Two of them took place in April 2020 (Zaragoza and Huesca) and the other one in May 2020 (Teruel). The main topics focused on were HPS network development, perceived barriers to implementation and potential solutions (Flaschberger et al., 2013; Gugglberger and Dür, 2011; Persson and Haraldsson, 2017; Viig et al., 2010; Viig and Wold, 2005). Groups contained an average of six participants, and the duration of discussion ranged from 70 to 90 minutes. The groups were facilitated by J.R.-S. and B.M.-P. using a pre-prepared script to ensure similar questions were asked in each group. The discussion group script was informed by the Stufflebeam Context-Input-Process-Product (CIPP) model (Stufflebeam and Shinkfield, 1989). It covered a wide range of areas, including goal setting (context), planning (input), process (implementation) and decision making (product). The discussion group script was pre-tested with three experts in qualitative research in the study area before data collection started.

Data analysis. The group discussions were transcribed. Initial analysis focused on each stakeholder's contribution to the discussion, and findings were compared across the discussion groups. Direct quotes by participants are used to illustrate the topics explored.

The analysis followed the three stages proposed by Bardin (2002). During a pre-analysis, a system of categories was developed. After initial transcription and reading, the system was tested using comments from a random subsample (20%) of the study population. A kappa coefficient was calculated from an independent analysis of the transcripts by J.R.-S. and S.L.-E. The coefficient obtained showed robust concordance ($K=0.93$, $p<.001$), over 70% (Miles and Huberman, 1994). Next, a more detailed exploration of the material took place and the remainder of the transcripts were coded by consensus. Categories and sub-categories were identified (Table 2). Data interpretation aided by

Table 2. Final categories and sub-categories in the analysis. **[AQ: 3]**

Categories	Sub-categories
Barriers	Staff shortage Environmental limitations Network communication limitations
Proposals for improvement	Collaboration with other settings School staff and teacher training New evaluation approaches and tools

QSR-NVIVO 11 then took place. Constant comparison between transcripts took place to strengthen the identified categories' internal and external heterogeneity (Patton, 1990).

Results

Main barriers: excessive workload and lack of involvement

The major barriers to the functioning of Aragon's HPS network were excessive workload, lack of involvement and limited exchange of knowledge/experience. One of the main barriers to operation was staff shortage. Only a small number of professionals (i.e. teachers, HPS coordinators and Sistema de Asesoramiento y Recursos en Educación para la Salud [SARES] officials) were responsible for implementing, managing and evaluating the network.

Participants mainly associated staff shortage with economic constraints that did not permit the creation of permanent positions for those responsible for the work. This led to a lack of planning, as there were insufficient people in charge of organisation to motivate and guide the whole group. As an HPS coordinator in Huesca put it, 'Teamwork is fundamental. There can't be just one person who does all the work, there must be a schedule, meetings are necessary, etc. (. . .) So, team work is fundamental; if there is no team, the project will not work'.

Participants repeatedly stressed the need to establish a permanent position, a support person and a link to help get the job done. One participant in Zaragoza said,

I always remember the person that existed in the centres before the [recent] crisis – the facilitator, who was hired on a half-time basis and did the support work in the centre, acting as a link with the CPR¹ (. . .). (High school teacher)

The absence of such a person meant centres have to depend on volunteers. As one participant in Zaragoza put it, '(. . .), so it is [all] a matter of willingness on the part of the professionals who work here, as there is no time compensation, at least not for teachers' (primary school teacher).

Because the work carried out by teaching staff was voluntary, this created a sense of overload. With no financial incentives, little advance planning and no one to decide what needed to be done, teachers felt busy without having to take on new challenges or projects: 'The problem was that the bulk of the work fell on one person (. . .) and it was impossible to cover everything we thought of at the beginning, while taking into account my own working day', said the HPS coordinator in Teruel. They continued, 'I think it's important for the teams and the coordinator to have some breathing space, or some kind of work release because Otherwise, it's too hard to continue with the programme' (educational/health administration employee, in Teruel).

Participants identified three key factors blocking the proper functioning of the HPS network. First, they highlighted lack of resources, such as time and money. One of the participants stated,

(. . .) the problem is usually money and getting people together. (. . .) Because originally [the meetings] used to last for a day or two, and the administration paid, but then, they realised there was not enough money. And now we must adapt to the lack of economic resources (. . .). (High school teacher in Zaragoza)

Another limitation was lack of family involvement and awareness. The HPS coordinator in Teruel explained,

On the other hand, parents do not usually get very involved in the life of the school It's their fault but the responsibility of everyone. If you look at the AMyPA (parents' association), it comprises the same or practically the same people every year because no one else wants to join.

Finally, lack of continuity was noted since many schools experienced changes in teachers every year, which harmed project development. However, according to participants, not only was the short-term appointment of teachers a limitation, but there was also lack of support within the school, as some teachers did not consider health promotion a priority. This created a challenge for continuity in the network. One participant said,

(. . .)what often happens is that we are always the same people who come together (. . .), and some schools do not really participate. Because when I look at the complete list of centres, there are so many of them in Aragon. However, nowadays, (. . .) I never see many people, and the ones I do see are usually the same (. . .). (Educational/health administration employee in Zaragoza)

An additional problem related to poor coordination and communication leading to a lack of knowledge exchange between teachers and among schools. As an HPS coordinator described it,

I believe that what is failing in Aragon's Health Promoting School Network is the network itself. (. . .) for example, I cannot find out what is going on at [a particular high school] unless I go there or ask a teacher. We really should be more connected like a real network, and explain the work we do and what individuals are up to. (HPS coordinator in Huesca)

Participants also remarked on the lack of communication between the Aragon HPS network and teacher education providers in universities and elsewhere, which hindered the evaluation of projects. One university researcher said, '[. . .] I do not know if [the work they do] is entirely correct or systematic (. . .). something may not be right, so you have to assess which things are more effective' (university teacher and researcher in Zaragoza). And a school teacher remarked,

[. . .] We don't have anyone to say to us, 'Listen, here is the questionnaire or a report that can guide you, or to help you know if you're on the right track'. We are trying to find our own way at each centre. (Primary school teacher in Zaragoza)

In addition, participants believe it was important for the Aragon HPS network's work to be better promoted to aid continuity, to raise ambition and to identify new challenges. The HPS coordinator in Teruel said, 'I think it is necessary to provide regular updates to the teachers, letting them know where we are now, and what we want to achieve by this time next year' (HPS coordinator in Teruel).

Suggestions for improvement: the need for systematic evaluation

The following actions were identified as likely to improve the work of the Aragon HPS network: strengthening collaboration with other agencies, providing continuing education to teachers and introducing more systematic approaches to evaluation.

Strengthening collaboration with other agencies. Participants highlighted the importance of collaboration with organisations such as universities to improve '[the quality of work] . . . especially in terms of [integrating] new evidence, activities, programmes, news, and discoveries related to health' (health administration employee in Zaragoza). In addition, a closer connection to health centres could facilitate learning about health issues, provide referral pathways and facilitate training. There could also be closer collaboration with other agencies in the network so as to learn from one another. As a member of staff working in a nearby Huesca educational training centre put it, 'I think the development [of the HPS network] has been very good, but it could be even better, as similar work is being carried out elsewhere in the form of service-learning, or the issue of health in the neighbourhood' (educational training centre in Huesca). Finally, the importance of sharing experiences with educational institutions was stressed. A researcher in a higher education institution could help in this respect. '(. . .) it would be a good thing for a centre in the province, which is being successful in carrying out an HPS programme, to describe this in a short article, and I [then] could [help] disseminate it' (university teacher and researcher in Huesca).

Providing continuing education to teachers. 'We have to offer [teacher] training fit for the twenty-first century', said an education centre provider. 'We also have to adapt to the characteristics of the new type of student body' (educational training centre in Huesca). Training should be of good quality and should aim to reach the maximum number of teachers.

Achieving these goals was perceived as being easier to achieve with some groups of teachers than for others. '[. . .] in the case of physical education teachers, there are usually no problem. However, if we focus on class tutors, or the teachers of another subject, (. . .) they do not have enough advance preparation', said the HPS coordinator in Zaragoza. '(. . .) The same thing happens when we have to give a talk on sex education, nobody wants to give it because they don't know how to deal with the topic with the students. Much more training is needed' was added by the high school teacher in Zaragoza.

In addition, there is a need for greater continuity between education stages:

For me, training is the important thing. [It could take the form of] seminars or complementary activities for all teachers, and even transversal training between different levels (childhood, primary, secondary and high school) of schooling. This type of programme or training could be offered as part of all our secondary education master's degrees (. . .). (University teacher in Huesca)

Several other options for the training of teachers were identified such as minicourses and province-wide training events available to all. One of the participants said,

I think it is a good idea to include a [focus on HPS work] in the training offered to teaching staff because there is no initial training [in this area], although there are refresher courses that last for a few days. But only the person in charge at each centre goes to them. (Educational training centre in Huesca)

Developing a more systematic approach to evaluation. Finally, a range of approaches and methodologies were proposed to more systematically evaluate the management and effectiveness of the HPS

network. Suggestions included a clearer focus on families in evaluating the work. In the words of one participant, 'We must change the vision and place a great[er] emphasis on impact in the family environment. That way, families will start to feel that this (the HPS initiative) is their own home' (HPS coordinator in Teruel). In addition, working groups could be created to share up to date relevant materials and resources.

In one of the groups, a primary school teacher in Huesca suggested, 'I think that having some kind of platform from which each school can access videos, information and policy regulations, as well as share experiences with other schools, would be very beneficial'. The importance of ongoing systematic evaluation was widely commented on in group discussions highlighting both the need for it and the feedback it could provide to others. Participants also mentioned the value of disseminating the results of ongoing work to centres in the Aragon HPS network: 'What is really needed is an evaluation tool, which (. . .) allows each of the HPS to connect with the others' (educational administration employee in Huesca). Different methods and forms of joint-evaluation were also proposed:

I think there is also a lack of awareness on how to link the university research environment to local school realities. A series of more qualitative cutting-edge methodologies, which are currently on the rise, would better fit our needs in that respect. (HPS coordinator in Huesca)

Discussion

The aim of this small-scale qualitative study was to identify barriers and opportunities for Aragon's HPS network and its external stakeholders, so as to improve the quality and sustainability of its work. As described above, this study identified three barriers and three potential areas for improvement in the work currently being undertaken.

Teachers are important stakeholders in school health promotion because they know how to develop a health promotion programme best suited to their schools (Viig and Wold, 2005). To support this work, and as Hung et al. (2014) and Weare and Nind (2011) have pointed out, teachers require education and training on health-related topics. Both initial teacher education and continuing professional development are important enablers for HPS work (Langford et al., 2014). However, health education and health promotion are not integral parts of teacher education in Spain, and only a few universities include a focus on health in their initial teacher training programmes. In Aragon, a shortage of well-trained and experienced teachers makes managing and implementing the HPS network difficult. Teacher stakeholders highlighted how excessive working hours made coordinating the work of the HPS difficult when added to the other responsibilities they had.

Contextual factors set limits on what can be achieved. In this case, they included lack of teacher and family involvement, the social and environmental characteristics of the school itself, and whether the setting was rural or urban. Importantly, health promotion is not only about encouraging children and adolescents to eat well and be physically active, but is part of a broader approach in which the success of an HPS depends on interaction with the surrounding community (Jourdan et al., 2008; Langford et al., 2014; Ogilvie et al., 2005; Ramos et al., 2013; Saito et al., 2014). Because of this, it is crucial for all school stakeholders (i.e. teachers, students and families) and community members (i.e. health care centres, education authorities, and other entities or organisations) to work together to create an HPS (Davis and Cooke, 2007). The relatively low level of cooperation between different stakeholders found in this study is supported by findings from other countries (Moynihan et al., 2016).

Another limitation identified was lack of communication within the HPS network and beyond (i.e. with the families, students and health centres). Good communication within a HPS is an aspect rarely been studied to date, not only at the national level but also internationally (Turunen et al., 2017). Without clear messaging and effective information exchange, problems can arise (Rosas, 2017). Coordination and clear roles and responsibilities are also essential (Lee, 2002) and are more likely to engage teachers in networking and collaboration (Viig et al., 2010).

Action is also needed to strengthen communication between the HPS and key stakeholders, for example, by increasing a sense of belonging to the network and improving relationships between schools. The communicative competence of agents within an HPS network is central to determining implementation success (Hung et al., 2014), and the diverse and subjective nature of network stakeholders' perspectives on problems and solutions is critical to system adaptation (Viig et al., 2010).

Among the potential solutions to these problems identified was a need to establish collaborations with other entities and strengthen links to the community. Specifically mentioned were closer connections to families, health centres and local universities. Being involved in a network may lead to new forms of professional collaboration and learning (Viig et al., 2010). HPS networks aim to engage with the problems or needs of the schools within them as well as the immediate environment. To do this, it is essential to encourage the participation not only of teachers and students, but also of education authorities, families and external partners (Clelland et al., 2013; Viig and Wold, 2005). In line with the commitments of the socio-ecological model of health (Sallis, 2018; Sallis et al., 2006), the involvement of stakeholders at different levels (e.g. the individual, social and political levels) should be considered.

In this study, participants signalled the need to develop and utilise new evaluation and implementation tools. In this way, the HPS network could be used to answer specific questions about HPS themselves, the actions developed and stakeholders involved in their coordination (Rivett, 2005; Rosas, 2017). The use of an intervention planning model (Crosby and Noar, 2011) could facilitate the evaluation not only of the network and individuals' schools but also of health-related behaviours. An important reference point for work of this kind is the RE-AIM model (Allen et al., 2011). **[AQ: 4]**

Limitations

This study has a number of limitations. As it took the form of a small-scale study and relied on opportunity sampling, the findings must be recognised as partial and cannot be generalised. A second limitation derives from the fact that families were not consulted although they may be considered key members of the HPS network. Finally, we relied on group interviews and did not conduct in-depth interviews with stakeholders, which could have produced new information not mentioned in the focus groups.

Conclusion

Stakeholders in this study highlighted the need to review the workings of Aragon's HPS network, especially in relation to collaborative action, continuing education for teachers, internal communication and the school environment. They stressed the importance of evaluating the network holistically and systematically to assess its sustainability. The main barriers to performance detected in this study were the excessive workload imposed on professionals in implementing, managing and evaluating the network; the limitations created by contextual factors such as lack of teacher and

family involvement; and the lack of communication within the HPS network. The stakeholders' most requested improvements to the current situation were enhanced collaboration with people working other settings such as universities and health care centres; increased numbers of school staff committed to the network; improving teacher education and training; and finally, better HPS network evaluation using new methodologies and tools.

Ultimately, if the HPS programme is to be priority in Aragon's health care system, there is a need to establish effective policies to support its implementation and improve its sustainability. In support of such a goal, a health impact assessment of the school population would facilitate continued improvement in Aragon's HPS network and add evidence to the HPS research field more generally.

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Note

1. The Centro de Profesores y Recursos (CPR), otherwise referred to in this paper as the educational training centre.

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