Exploring the implementation dynamics of the Health Promoting School approach in Europe: a qualitative study among school health representatives

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Abstract

Purpose – Adapting the Health Promotion School (HPS) approach to context specifics is acknowledged as being essential for implementation and achieving optimal effectiveness. This study aims to explore implementation variations on seven HPS spectra (such as top-down to bottom-up involvement of stakeholders) on which implementation of the HPS approach can vary, and the factors that relate to navigation on these spectra.

Design/methodology/approach – In 2020, fourteen HPS researchers and professionals from ten European countries participated in semi-structured interviews.

Findings – Navigation variations on the HPS spectra occurred throughout most spectra. Further, a tendency was found towards spectrum extremes of addressing multiple core-components, implementing non-disruptive Health Promotion (HP) programmes, and evaluating the HPS approach through an action-oriented research approach. Important general factors were resources, staff capacity and time available to staff members for implementing the HPS approach. Some spectra required more specific factors like organisational skills, leadership or a certain level of democracy.

Practical implications – The implementation of the HPS approach should be supported by implementation strategies addressing the spectrum-specific factors, but more generic factors such as staff capacity, resources and the level of democracy should also be considered.

Originality/value – This study explores navigation variations throughout HPS spectra rather than the HPS approach in general. It also nuances implementation diversity across and within different European contexts.

Keywords Education, Health Promotion, Health Promoting School approach, Implementation dynamics, Contextual adaptation, Interviews

Paper type Research paper

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Introduction

Worldwide, over one billion children attend schools daily (UNICEF, 2021). Schools are therefore considered an optimal setting for health promotion (HP) (Lee and Gortmaker, 2012). In the late 1980s, the World Health Organization (WHO) initiated the Health Promoting School (HPS) approach: a systematic integrated approach aimed at increasing the social, mental and physical health, and wellbeing of children (WHO, 1986, 1997). It has since become the main strategy for HP worldwide within the education system (Jourdan *et al.*, 2021; Turunen *et al.*, 2017; WHO, 2017). By intervening from a young age, the HPS approach contributes to creating health behaviours that can bear fruit well into adulthood (Craigie *et al.*, 2011; Yang *et al.*, 2014). Moreover, the HPS approach underlines the inextricable link between HP and education as healthy children learn better and educated children live healthier lives (St Leger, 2001; Suhrcke and de Paz Nieves, 2011).

However, when it comes to the effectiveness of the HPS approach, a Cochrane review (Langford *et al.*, 2015) showed mixed results in terms of health behaviour outcomes. This was partly explained by synthesis that the implementation of the HPS approach needed to be adapted to different contexts (Langford *et al.*, 2015; Stewart-Brown, 2006), resulting in non-generic HPS approach implementation, thereby making overall conclusions on the effectiveness of the HPS approach problematic. Other studies also underline, that the implementation of the HPS approach requires being sensitive to its implementation context in order to create sustainable HP practice (Bartelink, 2019; Gugglberger, 2021). Schools should therefore be viewed as complex adaptive systems (CAS), in which many actors and factors interact (Keshavarz *et al.*, 2010). A CAS is an open, unpredictable and autonomous system with fuzzy boundaries that has the capability to self-organise and adapt to the changing school contexts, following a non-linear path (Bartelink, 2019). This implies that it cannot be assumed that all school systems will respond to the HPS approach in the same way (Darlington *et al.*, 2018, 2020; Keshavarz *et al.*, 2010; Moore *et al.*, 2019; Rosas, 2017). Hence, a one-size-fits-all HPS approach is unrealistic and sometimes even counterproductive (Darlington *et al.*, 2018, 2020; Littlecott, 2016). Adaptation of the HPS approach to a specific context is therefore essential for effectivity, and exploring implementation dynamics is essential for sustainable implementation (Darlington *et al.*, 2020).

Implementation of the HPS approach as a non-linear process that requires adaptation in a local context is strongly acknowledged by the Schools for Health in Europe (SHE) network foundation. Since 2006, SHE has built on the previous work of the European Network of Health Promoting Schools (ENHPS), that was founded by the WHO Europe, the Council of Europe and the European Union in 1992 (Burgher *et al.*, 1999). SHE aims to disseminate knowledge, research and tools supporting the HPS approach in 40 member countries across Europe and Asia (SHE, 2021). In 2019, SHE published a factsheet on the state of the art of the HPS approach in Europe describing the results of a narrative literature review (Bartelink and Bessems, 2019). It emphasises that the fit between the implementation of the HPS approach in schools and specific school contexts can be optimised by navigating on seven different spectra (see Figure 1). In the next paragraph, we will briefly summarise these seven spectra.

The first spectrum concerns the involvement of stakeholders in the decision-making and implementation of the HPS approach and ranges from top-down – implying involvement of external experts – to bottom-up – implying that school staff, children and parents are involved, which often leads to a higher sense of ownership in the school. The second spectrum concerns the number of HPS core-components (e.g. healthy school policies, the school's social environment (Turunen *et al.*, 2017; SHE, 2020)) that are addressed and can range from addressing a single HPS component to addressing multiple components. The latter is especially effective for wicked health problems. The third spectrum concerns the development of HP programmes and ranges from schools adopting existing and evidence-based HP programmes and adapting those to their context to developing new HP programmes designed especially for a specific school context, which is considered more

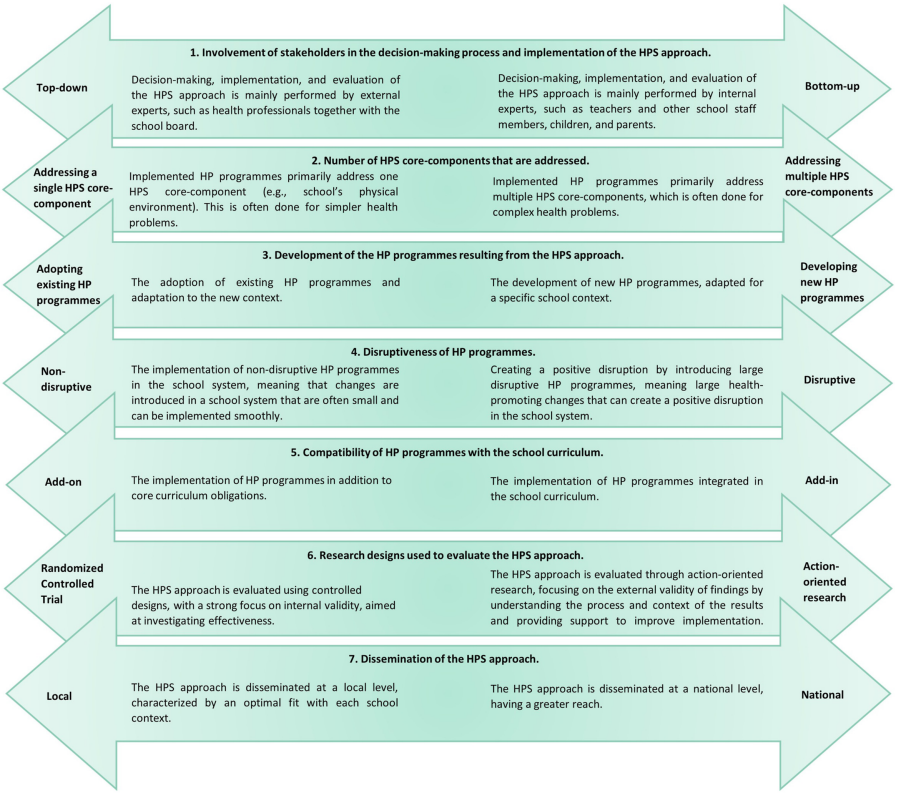

Figure 1.
Spectrum extremes in the implementation process of the HPS approach

costly and time-consuming. The fourth spectrum concerns the degree of disruptiveness of HP programmes and includes non-disruptive HP programmes that imply relatively small changes such as education regarding active transport to get to school, which can be smoothly integrated within the existing working practices. The other end of the range concerns more disruptive HP programmes that require structural changes to the school system. An example is the combination of a healthy lunch each day with cultural sessions after lunch, and daily physical education lessons for all students. The fifth spectrum concerns the compatibility of HP programmes with the existing school curriculum and includes additional activities on top of the curriculum (e.g. stand-alone projects). This add-on approach often demands that school staff perform extra tasks. The other side of the spectrum concerns the integration of activities in the current curriculum without reducing the time spent on core curriculum obligations (add-in). The sixth spectrum concerns the evaluation designs of the HPS approach and ranges from controlled evaluation designs with a strong focus on internal validity, such as Randomised Controlled Trials (RCTs), to action-oriented research, which focuses on external validity. And the final spectrum concerns the targeted dissemination of the HPS approach and ranges from local dissemination, often characterised by optimal fit with each school context, to large-scale national dissemination, targeting many schools simultaneously.

As in all implementation processes, these navigations on the spectra are determined by multilevel factors. Consequently, systematically targeting these factors will enhance the implementation process (Damschroder *et al.*, 2009; Fleuren *et al.*, 2004). Factors have been

categorised into: (1) factors within the socio-political context (e.g. rules and legislation); (2) the implementing organisation (e.g. staff turnover and the decision-making process in the school); (3) factors related to the staff members/users (e.g. knowledge and skills on the HPS approach); and (4) the innovation or HPS approach itself (e.g. its complexity and relative advantage) (Fleuren *et al.*, 2004). We do know that notable differences in the implementation of the HPS approach remain across countries, and that different factors cause these differences in different contexts (Lee and Gortmaker, 2012). Moreover, there is a growing body of evidence, which describes the local implementation and practice of the HPS approach (Gleddie, 2012) and factors enhancing successful implementation (Mcisaac *et al.*, 2017; Turunen *et al.*, 2017). However, to date, little is known on how to adapt or navigate the HPS approach to context specifics (Darlington *et al.*, 2017; Marks *et al.*, 2011). Therefore, this study aims to answer the following research questions: (1) how do schools in different European countries typically navigate on the seven HPS spectra according to school health representatives? And (2) which factors do school health representatives perceive as influencing navigation on each of the spectra in the implementation of the HPS approach in their country?

Methods

Study design, procedures and participants

Between April and May 2020, 39 school health representatives from 20 SHE member countries were asked to participate in this explorative, descriptive interview study. Following a qualitative methodology was essential to enable us to explore implementation dynamics. Eligible participants were any national school health representatives, including HPS researchers, national SHE coordinators and regional HPS professionals. Participants were selected through the SHE national coordinator network, the SHE research group, personal network connections from the third and last author, and snowball sampling. Participants were contacted via email and, if required, a reminder email was sent two weeks later. Prior to the interviews, participants received a copy of the SHE factsheet (Bartelink and Bessems, 2019). Interviews were conducted in Dutch or English by the second author between April and June 2020 via the online programme for video communication Zoom (www.zoom.us) using a secured licence. Interviews were audio recorded with permission of the participants.

Ethics

The study was approved by the FHML Research Ethics Committee at Maastricht University under the licence of the Health Education and Promotion programme: FHML/HEP_2020.634. Prior to their interview, all participants received information about the study aim, its design, the voluntary nature of participation, the option to withdraw from participation at any time without justification, and the confidential treatment of their data. Participants were asked to sign an informed consent form based on the information they received.

Interview guide

A semi-structured interview guide was developed based on the seven HPS spectra. First, participants were asked to share their general characteristics, including age, country of residence and professional background to enrich interpretation. Then, each spectrum was discussed, starting with navigation on the spectrum ("In general, where do schools in your country navigate on this spectrum?"), followed by in-depth explorative questions (e.g. regarding spectrum 1: "Who initiates the top-down and/or bottom-up approach?"). Additionally, the inhibiting and enhancing factors were examined ("From the perspective of this spectrum, which barriers and facilitators are perceived regarding the implementation of

the HPS approach in schools in your country?"), again followed by in-depth explorative questions (e.g. "Could you clarify the mentioned barrier or facilitator by describing its implementation in the context?").

Data processing and analysis

A deductive coding approach was followed with the seven HPS spectra and the four categories: characteristics of the socio-political-, organisation-, user- and innovation context (Fleuren *et al.*, 2004), followed by specific inductive codes from themes that emerged. The interviews were transcribed verbatim and coded by the second author, and analysed by the first and second author using the software NVivo Version 12 (QSR International Pty Ltd., Australia). Interpretation differences between the first and second author were discussed, and when doubts arose the last author was consulted. To support the interpretation of the results, quotations were translated into English if necessary.

Results

In total, 14 (36%) out of the 39 eligible school health representatives participated in this study. Reasons for non-response were no reply (n = 11), no time (n = 7), perception of not being suitable to participate (n = 6) and a language barrier (n = 1). Participants were HPS researchers (n = 10), national SHE coordinators (n = 3) or regional HPS professionals (n = 1). Throughout this article, we refer to countries, though this includes one respondent reporting on a regional level. All were familiar with the HPS approach and had a good notion of the implementation of the HPS approach in their country or region. Participants represented 10 European countries, i.e. the Netherlands (n = 4), Portugal (n = 2), Denmark, Finland, Germany, Greece, Hungary, Norway, the Republic of North Macedonia and the United Kingdom (n = 1). The mean duration of their involvement in school HP was 16 years (sd = 11.9, range = half year to 36 years). The mean duration of the interviews was 72 min.

Results are reported per HPS spectrum. To increase readability, for research question (2), only the most frequently mentioned factors are reported. A complete overview of factors is listed in Table 1.

Spectrum 1: top-down to bottom-up involvement of stakeholders in the decision-making process and implementation of the HPS approach

Navigation variation on spectrum 1. Most schools in the participating countries worked according to the principles of the HPS approach using combinations of top-down and bottom-up approaches. Navigation towards top-down approaches was predominant. Top-down approaches were mostly initiated by strong leaders, but they were also supported by rules and regulations (e.g. through laws, curricula and guidelines), and stakeholders (e.g. by HP professionals, health insurance companies or school management boards), while bottom-up approaches were mostly initiated by teachers, students, school supporting staff members (e.g. health coordinators) or students' parents: *"Leadership is important because schools are hierarchical in nature; they're dynamic and complex places. You need to have somebody in there that is steering that ship. That is the linchpin. If we talk about integrating health and wellbeing and everything a school does, the only person that really has the ability to do that, is somebody in a significantly senior position*" (public health professional).

Factors related to more top-down or bottom-up HPS approaches. Top-down approaches were inhibited by HP programmes not always being compatible with specific school needs and practices. Bottom-up approaches were supported by: (1) sufficient time of school staff members, noting that more time was required to implement bottom-up activities compared to top-down activities; (2) sufficient skills and knowledge of school staff members regarding the

HPS approach; and (3) sufficient financial resources for the decision-making process in implementing the HPS approach. Bottom-up approaches were inhibited by reluctance of school staff members to change in the school, which was often a result of insufficient time and low priority for the HPS approach at the school. Finally, some factors related to both top-down and bottom-up approaches. Firstly, the cultural tendency of schools towards accepting the HPS approach was important for both ends of the spectrum. However, the level of acceptance differed per country. And secondly, the fit of the HPS approach with existing rules and regulations promoted both top-down and bottom-up approaches as well as school health professionals' motivations and sense of ownership of the HPS approach.

Spectrum 2: addressing a single HPS core-component to addressing multiple core-components of the HPS approach

Navigation variation on spectrum 2. Most schools that worked with the HPS approach generally aimed to target multiple core-components concurrently. "*In any case, I think that more and more efforts are being made to implement multi-component HP programmes, because we also know that that works much better" (HPS researcher).* More specifically, most frequently addressed HPS core-components (SHE, 2020) were the school's social environment, physical environment and community links, while the least frequently implemented components were healthy school policies, health services and individual health skills and action competencies.

Factors related to addressing single or multiple HPS core-components. A common barrier to the implementation of multiple core-components was commitment from stakeholders such as health professionals, parents, children and teachers, and the perceived support from them by the user. In addition, insufficient financial resources were perceived as hindering implementation of multiple HPS core-components, as well as insufficient time available to school staff members, especially when their workload was high. When there was collaboration between the health and education sector, this was considered facilitating for implementing multiple HPS core-components. Finally, both single and multiple component approaches were determined by the fit with existing rules, regulations and legislation in the school: a good fit promoted the implementation of both single and multiple component approaches.

Spectrum 3: adopting existing HP programmes to developing new HP programmes

Navigation variation on spectrum 3. Most participants specified that the HPS approach was built on the combination of existing and new HP programmes but that neither were rarely implemented with high fidelity. In everyday practice, schools mostly adopted existing HP programmes and adapted these to their own school, as this was considered less time-consuming and assumed to be more effective than developing new HP programmes. If new HP programmes were developed, this was mainly done through projects. However, systematic theory-based approaches were hardly used.

Factors related more to adopting existing HP programmes or developing new HP programmes. Their ease of use promoted the adoption of existing HP programmes: *"It is easier for schools to choose existing HP programmes and just organise them in their school instead of thinking of something new, and working on something new, which requires more efforts and resources"* (national coordinator). Furthermore, the observability of the outcomes of existing HP programmes supported implementation, especially when the topic was not core to the curriculum goals. The development of new HP programmes was supported by adequate knowledge and skills from supporting health professionals, as this was considered a complex process. Additionally, bottom-up involvement of staff members and students in the decision to develop this HP programme also supported implementation: "*They used the*

ideas of students, sometimes they applied questionnaires, or they discussed in classes what the main issues were that they wanted to work on, and the methodologies that they wanted to apply" (national coordinator). Barriers to the development of new HP programmes were insufficient time available to health professionals to support the process. Consequently, this often resulted in the adoption and adaptation of existing HP programmes. Finally, both existing and new HP programmes were encouraged when the HP programme was compatible with a school's work procedures, rules and regulations and when required financial resources were met.

Spectrum 4: non-disruptive to disruptive HP programmes as part of the HPS approach

Navigation variation on spectrum 4. Overall, non-disruptive approaches were more common than disruptive approaches, despite the HP professionals' efforts to promote disruptiveness because of the evidence for the effectiveness of such approaches. Disruptive approaches were often referred to as multiple core-components approaches. Some indicated that disruptiveness also related to the current HPS approach situation in schools: "*It depends on the starting point though. So, if you already have quite a few things in your environment [. . .] and you want to start with the healthy school approach, then I think for that school it will not be that disruptive. But if you start from zero, then the criteria for the healthy school would maybe be more disruptive"* (HPS researcher).

Factors related to more non-disruptive or disruptive HP programmes as part of the HPS approach. Non-disruptive HP programmes were considered less complex and easier to implement compared to disruptive alternatives, thereby promoting non-disruptiveness. When disruptive HP programmes were supported by stakeholders inside and outside the school setting, this was perceived as an important facilitator of disruptive approaches: *"It's very difficult to get it [disruptive HP programme] accepted [. . .]. The management, the teachers, the school board, and everyone needs to be on board. [. . .] Without stakeholder support, it would never work"* (national coordinator). Additionally, facilitating factors of a disruptive approach were the interest of the HP professionals and the perceived urgency to change within the school. Important barriers for disruptive approaches were insufficient financial resources for these relatively expensive HP programmes, low compatibility with the school's existing working procedures, and uncertainty among school staff members about the results of disruptive HP programmes. And as with some of the above-mentioned spectra, lack of available time of school staff members was considered a barrier for disruptive approaches in many schools: *"Schools can be hectic places full of activity, with a wide range of responsibilities. There are many things they are required to do by law or within the governance processes in which they operate. So, if you really want to create transformative change around health and wellbeing in schools, you need to make sure you can release some of the pressure points, which are often related to money and time. And they are equally important"* (public health professional). Finally, both disruptive and non-disruptive approaches were supported when they fit with existing traditions in the school and with existing collaboration between stakeholders involved in the implementation of the approach.

Spectrum 5: compatibility of add-on to add-in HP programmes with the school curriculum

Navigation variation on spectrum 5. Overall, there was a trend towards HP programmes in addition to existing curricula as part of the HPS approach. The need for integrating HP programmes in curricula was acknowledged as being beneficial for sustainability, but only a few participants were aware of HP programmes that were successful in add-in approaches.

Factors related to the compatibility of more add-on or add-in of HP programmes with the school curriculum. Add-on approaches were considered easier to implement than add-in approaches, and this was an important facilitator, both for implementing and integrating in

the school curriculum. Additionally, the availability of financial resources in the school facilitated implementation of add-on approaches, as add-on approaches were always additional to the current curriculum and therefore demanded extra costs. However, from a sustainability perspective, add-on approaches were considered less feasible. A tight fit of add-in approaches with the existing curriculum, guidelines and legislation facilitated implementation as the fit formalised the approach, and it created awareness among teachers, who were then less inclined to ignore it. Other facilitators for an add-in approach were: (1) existing collaboration between health and education sectors; (2) communication about how the learning process could benefit from health and wellbeing; and (3) skills and knowledge of supporting HP professionals as add-in approaches required specific support from both HP professionals and other stakeholders inside and outside the school setting. On the other hand, if add-in HPS approaches were not considered a task by the school, this hampered implementation: *"You can't keep adding more responsibilities on schools. It is not their responsibility to protect children from every threat known to them. You know, there is a role for parents, for society and there is a role for schools. It is very easy for all of us to see schools as an asset for everything. However, that conflicts with what schools are essentially put there to do. And that is why, you know, it is often add-on, not add-in"* (public health professional). Finally, both add-on and add-in approaches of the HPS approach required that school staff members had sufficient time for the implementation. Also, involvement in the adoption decision was said to promote both approaches. Commonly, add-on approaches were supported by top-down initiatives, while add-in approaches were supported by bottom-up initiatives.

Spectrum 6: evaluations by means of rigidly structured randomised controlled trials (RCTs) to action-oriented research approaches

Navigation variation on spectrum 6. Several participants indicated that it often happened that no evaluations were conducted. However, if evaluations were conducted, action-oriented research was standard practice in the majority of countries, whereas in other countries RCTs were considered the golden standard. Overall, interviewees considered action-oriented evaluation research designs to be progressive and modern, while combinations of approaches were said to complement each other.

Factors related to using more rigidly structured RCTs or action-oriented research to evaluate the HPS approach. Sufficient staff capacity and financial resources supported the high demands of RCT evaluations, while the lack time and willingness of schools to participate in an evaluation approach were considered as important barriers for these rigid designs. *"I think it is important to see that a school is not a laboratory. I mean, a school is something vibrant, something very much alive and therefore, it is difficult to have these clean RCTs"* (researcher). An action-oriented research approach was supported by the availability of expertise in the organisation, which was perceived as being crucial for carrying out high-quality action-oriented research designs. Additionally, the fit of action-oriented evaluation with the school – defined as the compatibility of the action-oriented research design with the school context – was considered an important facilitator. Finally, all evaluation approaches were facilitated by support from researchers to conduct the evaluation, and standard practice to carry out evaluations. Overall, evaluating HP programmes was challenging as it often had low priority. Therefore, one interviewee recommended easy-to-use validated evaluation tools.

Spectrum 7: local to national dissemination of the HPS approach

Navigation variation on spectrum 7. The majority of interviewees indicated that the HPS approach was disseminated both at a local and national level. In some countries, local dissemination at schools, municipalities or in regional cooperation structures was supported by public health professionals. Still, big differences between schools and regions were

Table 1.
Barriers and facilitators regarding the implementation of the HPS approach on the seven HPS spectra

Spectrum 1: The range of top-down to bottom-up involvement of stakeholders in the decision-making process and implementation of the HPS approach		
Facilitator top-down n.a.	*Facilitator bottom-up* • School staff members have sufficient time to implement the HPS approach.[4] • School staff members have sufficient knowledge and skills to implement the HPS approach.[2] • Schools have sufficient financial resources to implement HPS approach.[2] • A participatory approach of the health promotor.[2] • The HPS approach fits with the tasks of stakeholders.[3]	*Facilitator or barrier influencing navigation towards both sides of the spectrum* • Cultural norms: the extent to which people accept decisions being imposed on them.[1] • The extent to which the HPS approach fits into the existing rules and regulations.[1] • The extent to which schools prioritise the HPS approach.[2] • The perceived support from health professionals and other stakeholders to implement the HPS approach.[3] • The formal reinforcement by the school management to implement the HPS approach.[2]
Barrier top-down • HP programmes not compatible with the specific needs of the school.[4]	*Barrier bottom-up* • Schools perceive difficulty in implementing change.[2]	
Spectrum 2: The range of addressing a single HPS core-component to addressing multiple core-components of the HPS approach		
Facilitator single HPS core-component n.a.	*Facilitator multiple HPS core-components* • Schools perceive support from other stakeholders (inside and outside the school setting).[3] • Collaboration between health and education sectors.[2] • Collaboration between teachers within the school involved in the implementation of HPS core-components.[2] • The availability of good examples of HP programmes with multiple components.[4] • Schools perceive addressing multiple core-components as advantageous.[4]	*Facilitator or barrier influencing navigation towards both sides of the spectrum* • The extent to which the implementation of the HPS core-components fit with existing rules and regulations.[1] • The amount of staff capacity in the school to implement HPS components.[2]
Barrier single HPS core-component n.a	*Barrier multiple HPS core-components* • School staff members lack time to implement the HPS approach.[2] • Insufficient financial resources made available for implementing core-components (e.g. by school or municipality).[2] • The high perceived workload of implementing multiple core-components.[3]	

(*continued*)

Table 1.

Spectrum 3: The range of adopting existing HP programmes to developing new HP programmes

Facilitator adopting an existing HP programme

- The HP programme being perceived as easy to use.[4]
- Observability of outcomes of the HP programme.[4]

Barrier adopting an existing HP programme

n.a.

Facilitator developing a new HP programme

- Health professionals possess adequate knowledge and skills to develop a HP programme.[3]
- The school is accustomed to bottom-up decision-making.[2]

Barrier developing a new HP programme

- The health promotion professionals have insufficient time available.[3]

Facilitator or barrier influencing navigation towards both sides of the spectrum

- The extent to which the HP programme is perceived as compatible with existing work procedures in school.[4]
- The extent to which the HPS approach fits into the existing HPS approach rules and regulations.[1]
- The extent to which financial resources are made available for adopting existing HP programmes or developing new ones.[2]
- The perceived support from other stakeholders (inside and outside the school setting) in implementing the HP programme.[3]
- The motivation of HP professionals to develop new HP programmes or adopt existing HP programmes.[3]

Spectrum 4: The range of non-disruptive to disruptive HP programmes as part of the HPS approach

Facilitator non-disruptive HPS approach

- The HP programme is presented as being easy to implement.[4]

Barrier non-disruptive HPS approach n.a.

Facilitator disruptive HPS approach

- The adopting person in the school perceives support from all involved stakeholders (inside and outside the school setting) in implementing the HPS approach.[3]
- HP professionals have an interest in health promotion.[3]
- The perceived urgency to change within the school.[2]

Barrier disruptive HPS approach

- The school has a lack of financial resources available to implement the HPS approach.[2]
- School staff members lack time to implement HP programmes.[2]
- The HPS approach is not compatible with existing work procedures in the school.[4]
- Low observability of outcomes in implementing a disruptive HPS approach.[4]

Facilitator or barrier influencing navigation towards both sides of the spectrum

- The extent to which the HP programme fits into the existing traditions of the school system.[1]
- The existing collaboration between different parties involved in the implementation of the HPS approach.[2]
- The extent to which the HPS approach fits in the perceived task orientation of the school system.[2]
- The extent of formal reinforcement by the school management to integrate the HPS approach.[2]
- The extent to which users in the school have the knowledge and skills to implement the HPS approach.[3]
- The extent to which there are innovating champions (visionary stakeholders) within the school setting.[3]

(*continued*)

Spectrum 5: The range of compatibility of add-on to add-in HP programmes with the school curriculum

Facilitator add-on HPS approach	*Facilitator add-in HPS approach*	*Facilitator or barrier influencing navigation toward both sides of the spectrum*
• The HPS approach is easy to implement.[4] • Having sufficient financial resources available for implementing the HPS approach.[2]	• The HPS approach fits into the existing curriculum, guidelines, and legislation.[1] • The teacher has the skills and knowledge needed to implement the HPS approach.[3] • The adopting person perceives support from other stakeholders (inside and outside the school setting) in implementing the HPS approach.[3] • Stakeholders inside and outside the school setting are motivated to implement the add-in HPS approach.[3] • The HPS approach is perceived as advantageous.[4] • Collaboration between education and health sector.[1] • The school takes ownership to implement the HPS approach.[3] • The observability of outcomes of the HPS approach.[4] • The HPS approach is compatible with existing work procedures in the school.[4] • The flexibility of the HP programme.[4]	• School staff members have sufficient time to implement the HPS approach in the school setting.[2] • The existing decision-making procedures in the school are top-down or bottom-up oriented.[2]
Barrier add-on HPS approach n.a.	*Barrier add-in HPS approach* • The HPS approach does not fit with tasks of school staff members.[2]	

Spectrum 6: The range of RCTs to action-oriented research used to evaluate the HPS approach

Facilitator RCT	*Facilitator action-oriented research*	*Facilitator or barrier influencing navigation towards both sides of the spectrum*
• The organisation that does the evaluation has sufficient staff capacity.[2] • The organisation has sufficient financial resources.[2] • *Barrier RCT* • Schools' lack of willingness to participate in the evaluation of the HPS approach.[3] • The organisation does not have sufficient time to carry out the evaluation.[2]	• The evaluation design is compatible with the schools' work procedures.[4] • The availability of expertise in the organisation to carrying out the evaluation design.[2] *Barrier action-oriented research n.a.*	• The level of support from researchers in carrying out the evaluation design.[3] • The extent to which traditions are embedded in the school setting, regarding standard practice.[1] • The observability of outcomes of the HP programme.[4]

(*continued*)

Table 1.

Table 1.

Spectrum 7: The range of local to national dissemination of the HPS approach

Facilitator local dissemination

- The dissemination of the HPS approach is perceived as easy by HP professionals.[4]

Barrier local dissemination

- Insufficient financial resources made available for dissemination the HPS approach.[2]
- The HPS approach is not prioritised.[2]
- Not aligning natures of schools which hinder collaboration.[2]

Facilitator national dissemination

- Existence of national and regional connections with the HPS approach for HP professionals.[1]
- The HPS approach fits into the existing curriculum, guidelines, regulations, and legislation.[1]
- All regions of a country apply a similar HPS approach.[1]
- The adopting person perceives ownership to organise dissemination.[3]

Barrier national dissemination n.a.

Facilitator or barrier influencing navigation towards both sides of the spectrum

- The centralised or decentralised organisation of support in a county to support schools in a dissemination strategy.[1]
- The extent to which the dissemination HPS approach is compatible with existing work procedures in the school.[4]
- The amount of staff capacity (e.g. teachers) that disseminates the HPS approach.[2]
- The time available to staff members to disseminate the HPS approach.[2]

Note(s):
[1] = Characteristic of the socio-political context
[2] = Characteristic of the organisation
[3] = Characteristic of the adapting person, the user
[4] = Characteristic of the innovation

observed. Nationally disseminated HPS approaches were supported by consistent monitoring, though this often caused friction because HP programmes and policies needed to be translated to the local contexts. In countries that applied both a local and national dissemination of the HPS approach, this was characterised by national policies or curricula that supported integrated HPS approaches, which was translated to the school level.

Factors related to a more local or national dissemination of the HPS approach. Locally disseminating the HPS approach was perceived as being more accessible and therefore easier by HP professionals, as it was supported by existing community links through which HP programmes can be conducted in integrated HPS approaches. It supported schools in internalising the HPS approach. However, it also required sufficient financial resources, which were often provided by municipal health services, NGOs or health insurance companies. Another barrier for local dissemination was that schools were not inclined to share their experiences with the approach, because that was not seen as a priority. National dissemination of the HPS approach was facilitated by a strong network at both national and regional level for HP professionals. Additionally, if the HPS approach fitted into existing curricula, guidelines, regulations and legislation, and was similar to the HPS approach in all the regions of a country, this facilitated the national dissemination of the HPS approach. Finally, both the organisation of either centralised or decentralised support in a country to support schools in a dissemination strategy was facilitating for either a local or national dissemination strategy. If support was more decentralised and schools had high autonomy, this facilitated a local dissemination approach, and vice versa. In addition, whether the approach was compatible with existing work procedures and sufficient staff capacity for disseminating the HPS approach was dependent on the implementation context.

Discussion

This study aimed to explore the perspectives of school health representatives on how schools in European countries navigate on the seven HPS spectra, and which factors facilitate or inhibit implementation of the HPS approach.

Synthesis of general findings

School health representatives throughout different European countries expressed navigation variations in the implementation of top-down to bottom-up approaches (spectrum 1), adopting existing HP programmes to developing new HP programmes (spectrum 3), compatibility of add-on to add-in HP programmes with the school curriculum (spectrum 5) and local to national dissemination of the HPS approach (spectrum 7).

The extremes of spectra 1 and 7 were often seen to co-exist within countries: bottom-up approaches were often used in co-existence with local dissemination strategies, while top-down approaches often co-existed with national HPS approach dissemination strategies within countries. Countries leaning towards bottom-up approaches reported having decentralised, local support structures, with cultural norms and decision-making processes supporting bottom-up approaches. Other studies have shown that local bottom-up approaches were related to a higher degree of acceptance of the HPS philosophy and increased effectiveness of the HPS approach (Sabatier, 1997; Samdal, 1999). In line with these studies, our study indicated that countries leaning towards top-down approaches often have centralised and nationally oriented support structures with cultural norms and decision-making processes that support a top-down approach. This implies the inextricable link between the involvement of stakeholders in the decision-making process and dissemination strategies to implement the HPS approach.

The results also show that there is variation between and within countries regarding adopting existing programmes or developing new ones, and their implementation fidelity

(spectrum 3). Our findings confirm that existing programmes are almost never adopted fully as originally intended due to different implementation contexts. This implies that programme designers must adequately communicate what the effective principles of the programme are, and that they must already build in flexibility during development to optimise implementation in other contexts (Bartelink *et al.*, 2018; Driessen-Willems *et al.*, 2021; Rutter *et al.*, 2017). Overall, the expressed navigation variations between different European countries align with findings of previous research which underline the importance of contextual adaptation (Keshavarz *et al.*, 2010; Moore *et al.*, 2019; Shoveller *et al.*, 2016; Chambers and Norton, 2016)). Looking at differences between countries as well as schools within countries is useful because the HPS approach should be adapted to a school's context to be effective and sustainable (Langford *et al.*, 2015).

This study also shows that there is less variation in the other spectra (2, 4 and 6), which appears to reflect a tendency towards navigating to the spectrum extremes of addressing multiple core-components (spectrum 2), implementing non-disruptive HP programmes (spectrum 4) and evaluating the HPS approach through an action-oriented research approach (spectrum 6). Wicked health problems, such as obesity, mostly call for multi-component programmes as these are more effective (Bartelink and Bessems, 2019; Langford *et al.*, 2015; St Leger, 2001) (spectrum 2). An explanation for the tendency towards non-disruptive approaches (spectrum 4) is that disruptive approaches are relatively complex to implement; they typically require more time, money, competencies and stakeholder support, and although this has been shown to be effective (Bartelink, 2019), it is not always feasible or desirable. It may also explain why the study participants found this spectrum harder to grasp. Overall, more process guidance may be needed to support professionals in how to use the HPS spectra in adapting the HPS approach to their specific context via training or other types of support.

Regarding the type of evaluation (spectrum 6), most evaluations are action-oriented, fitting with the non-linear character of the implementation of the HPS approach. This was considered more feasible and sensitive to context specifics, while traditional evaluation tended to lack transferability of research results (Turunen *et al.*, 2017). Many participants indicated that evaluations were not conducted due to lack of resources. This is worrisome as evaluations can reveal the impact, but also support improvements to the HPS approach and the implementation process (St Leger *et al.*, 2007). We recommend promoting and supporting (low-cost) evaluations or monitoring as part of the implementation of the HPS approach.

Factors most frequently mentioned by school health representatives regarding the implementation of the HPS approach throughout all spectra are resources, staff capacity and time available to staff members to implement the HPS approach. Also, the HPS approach fitting in a school's perceived core business is expressed throughout the spectra to be a prerequisite for implementing the HPS approach. Finally, democracy – one of the key values of the HPS approach – is mentioned as being of high importance for navigating throughout the HPS spectra by many participants and in various spectra. It may imply that these factors should therefore be taken into account in the HPS approach in any context.

However, we also found that spectrum-specific factors enhanced or inhibited implementation of the HPS approach. Specifically, navigation towards disruptive programmes, add-in approaches and multi-component programmes demand more organisational skills compared to navigation on other spectra. Leadership and the level of democracy might be relatively important in these three spectra. Also, in evaluation research and national dissemination, it is vital to involve external experts, while this may be less necessary for most countries for navigating on the other spectra.

Regarding the level at which barriers and facilitators existed, we found that factors on the school (organisational) level are predominant (5 out of 7 spectra), which could be explained by

the complex (organisational) change processes that are required for the HPS approach, for which many stakeholders are needed (Deschesnes *et al.*, 2003), followed by barriers and/or facilitators at the HPS approach/innovation level (2 out of 7 spectra) and the staff members/users level (1 out of 7 spectra). Factors in the socio-political context were not mentioned as being most important in any of the spectra. This could be understood from the tendency commonly described in implementation literature (Deschesnes *et al.*, 2003; Lee and Gortmaker, 2012), as a rather macro level, not directly visible in daily practice.

Overall, our study revealed some general and some spectrum-specific barriers and facilitators that can be targeted by implementation strategies to support the implementation of the HPS approach.

Strengths and limitations

The qualitative research design allowed in-depth exploration among school health representatives across ten European countries, including 14 specific contexts. Due to a small sample, consisting mainly of HPS researchers from Western-European countries, the level of generalisability to Eastern-European countries may be limited. Further research among a more diverse group of professionals in bigger samples is required.

Additionally, we did not quantitatively assess the position of countries or schools on a spectrum, thereby making the classifications of navigation less robust. However, our goal was to retrieve in-depth understanding of implementation contexts. Finally, the conceptualisation of some of the spectra was relatively new to the participants, making it abstract, and the topics difficult to discuss. This was especially the case in spectrum 4 related to the disruptiveness, where some participants considered any programme disruptive, because something new is being done within the current situation. Although explorative, this study adds value to the growing body of literature about factors influencing the implementation of the HPS approach by illustrating how the HPS approach is implemented across different European countries, and which factors play a role in this process.

Conclusion

This study confirmed the status quo of "one size does not fit all", and to focus on "optimal adaptability fits all". It shows that countries vary considerably in their navigation on four spectra: top-down to bottom-up approaches, adopting existing programmes to developing new HP programmes, adding-on approaches to adding-in HP programmes in curricula, and local dissemination to national dissemination. With regard to the other three spectra, there was a tendency to navigate towards spectrum extremes of addressing multiple core-components, non-disruptive HP programmes and action-oriented evaluation designs, but evaluations were still not a common part of the HPS approach. The implementation of the HPS approach should be supported by implementation strategies addressing the spectrum-specific factors as identified in our study. Moreover, the generic factors of staff capacity, resources and the level of democracy are prerequisites for the implementation of the HPS in any context.

References

Bartelink, N. (2019), "Evaluating health promotion in complex adaptive school systems: the healthy primary school of the future", *Maastricht University*, Maastricht, The Netherlands, doi: 10.26481/dis.20191030nb.

Bartelink, N. and Bessems, K. (2019), "Health promoting schools in Europe", *State of the Art*, available at: https://www.schoolsforhealth.org/resources/materials-and-tools/factsheets (accessed 1 December 2021).

Bartelink, N.H., van Assema, P., Jansen, M.W., Savelberg, H.H., Willeboordse, M. and Kremers, S.P. (2018), "The healthy primary school of the future: a contextual action-oriented research approach", *International Journal of Environmental Research and Public Health*, Vol. 15 No. 10, p. 2243, doi: 10.3390/ijerph15102243.

Burgher, M., Rasmussen, V. and Rivett, D. (1999), "The European network of health promotion schools: the alliance of education and health", available at: https://www.euro.who.int/__data/assets/pdf_file/0004/252391/E62361.pdf (accessed 31 March 2022).

Chambers, D.A. and Norton, W.E. (2016), "The adaptome: advancing the science of intervention adaptation", *American Journal of Preventive Medicine*, Vol. 51 No 4, Suppl 2, pp. 124-131, doi: 10.1016/j.amepre.2016.05.011.

Craigie, A.M., Lake, A.A., Kelly, S.A., Adamson, A.J. and Mathers, J.C. (2011), "Tracking of obesity-related behaviours from childhood to adulthood: a systematic review", *Maturitas*, Vol. 70 No. 3, pp. 266-284, doi: 10.1016/j.maturitas.2011.08.005.

Damschroder, L.J., Aron, D.C., Keith, R.E., Kirsh, S.R., Alexander, J.A. and Lowery, J.C. (2009), "Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science", *Implementation Science*, Vol. 4 No. 50, pp. 1-15, doi: 10.1186/1748-5908-4-50.

Darlington, E.J., Simar, C. and Jourdan, D. (2017), "Implementation of a health promotion programme: a ten-year retrospective study", *Health Education*, Vol. 117 No. 3, pp. 252-279.

Darlington, E.J., Violon, N. and Jourdan, D. (2018), "Implementation of health promotion programmes in schools: an approach to understand the influence of contextual factors on the process?", *BMC Public Health*, Vol. 18 No. 1, p. 163, doi: 10.1186/s12889-017-5011-3.

Darlington, E.J., Mc Namara, P.M. and Jourdan, D. (2020), "Enhancing the efficacy of health promotion interventions: a focus on the context", *Public Health in Practice*, Vol. 1, p. 100002, doi: 10.1016/j.puhip.2020.100002.

Deschesnes, M., Martin, C. and Hill, A.J. (2003), "Comprehensive approaches to school health promotion: how to achieve broader implementation?", *Health Promotion International*, Vol. 18 No. 4, pp. 387-396, doi: 10.1093/heapro/dag410.

Driessen-Willems, M.D., Bartelink, N.H., Bessems, K.M., Kremers, S.P., Kintzen, C. and van Assema, P. (2021), "Co-creation approach with action-oriented research methods to strengthen 'Krachtvoer'; a school-based programme to enhance healthy nutrition in adolescents", *International Journal of Environmental Research and Public Health*, Vol. 18 No. 15, p. 7866, doi: 10.3390/ijerph18157866.

Fleuren, M., Wiefferink, K. and Paulussen, T. (2004), "Determinants of innovation within health care organizations: literature review and delphi study", *International Journal for Quality in Health Care*, Vol. 16 No. 2, pp. 107-123, doi: 10.1093/intqhc/mzh030.

Gleddie, D. (2012), "A journey into school health promotion: district implementation of the health promoting schools approach", *Health Promotion International*, Vol. 27 No. 1, pp. 82-89, doi: 10.1093/heapro/dar053.

Gugglberger, L. (2021), "A brief overview of a wide framework—health promoting schools: a curated collection", *Health Promotion International*, Vol. 36 No. 2, pp. 297-302, doi: 10.1093/heapro/daab037.

Jourdan, D., Gray, N.J., Barry, M.M., Caffe, S., Cornu, C., Diagne, F., El Hage, F., Farmer, M.Y., Slade, S., Marmot, M. and Sawyer, S.M. (2021), "Supporting every school to become a foundation for healthy lives", *The Lancet Child and Adolescent Health*, Vol. 5 No. 4, pp. 295-303, doi: 10.1016/S2352-4642(20)30316-3.

Keshavarz, N., Nutbeam, D., Rowling, L. and Khavarpour, F. (2010), "Schools as social complex adaptive systems: a new way to understand the challenges of introducing the health promoting schools concept", *Social Science and Medicine*, Vol. 70 No. 10, pp. 1467-1474, doi: 10.1016/j.socscimed.2010.01.034.

Langford, R., Bonell, C., Jones, H., Pouliou, T., Murphy, S., Waters, E., Komro, K., Gibbs, L., Magnus, D. and Campbell, R. (2015), "The World health organization's health promoting schools framework: a Cochrane systematic review and meta-analysis", *BMC Public Health*, Vol. 15 No. 1, pp. 1-15, doi: 10.1186/s12889-015-1360-y.

Lee, R.M. and Gortmaker, S.L. (2012), "Health dissemination and implementation within schools", in Browson, R.C., Colditz, G.A. and Proctor, E.K. (Eds), *Dissemination and Implementation Research in Health: Translating Science to Practice*, Oxford University Press, New York, pp. 419-436.

Littlecott, H.J. (2016), "From complex interventions to complex systems: towards a better understanding of school health improvement", Cardiff University, Wales, available at: http://orca.cardiff.ac.uk/id/eprint/100889

Marks, R., Rowling, L. and Samdal, O. (2011), "Filling the black box of implementation for health-promoting schools", *Health Education*, Vol. 111 No. 5, pp. 347-366, doi: 10.1108/09654281111161202.

Mcisaac, J.D., Kirk, F.L. and Veugelers, P.J. (2017), "Culture matters: a case of school health promotion in Canada", *Health Promotion International*, Vol. 32 No. 2, pp. 207-217, doi: 10.1093/heapro/dat055.

Moore, G.F., Evans, R.E., Hawkins, J., Littlecott, H., Melendez-Torres, G.J., Bonell, C. and Murphy, S. (2019), "From complex social interventions to interventions in complex social systems: future directions and unresolved questions for intervention development and evaluation", *Evaluation*, Vol. 25 No. 1, pp. 23-45, doi: 10.1177/1356389018803219.

Rosas, S.R. (2017), "Systems thinking and complexity: considerations for health promoting schools", *Health Promotion International*, Vol. 32 No. 2, pp. 301-311.

Rutter, H., Savona, N., Glonti, K., Bibby, J., Cummins, S., Finegood, D.T., Greaves, F., Harper, L., Hawe, P., Moore, L., Petticrew, M., Rehfuess, E., Shiell, A., Thomas, J. and White, M. (2017), "The need for a complex systems model of evidence for public health", *The Lancet*, Vol. 390 No. 10112, pp. 2602-2604, doi: 10.1016/S0140-6736(17)31267-9.

Sabatier, P.A. (1997), "Top-down and bottom-up approaches to implementation research: a critical analyses and suggested synthesis", *Journal of Public Policy*, Vol. 6 No. 1, pp. 21-48, available at: https://www.jstor.org/stable/3998354

Samdal, O. (1999), "Health promotion integrated into school policy and practice", in Wold, B. and Samdal, O. (Eds), *Health Promotion Among Young People: the Development of Healthy School Environments: Dissemination of Experiences from the Norwegian Schools in the European Network of Health Promoting Schools (ENHPS)*, University of Bergen, Research Centre for Health Promotion, Bergen, pp. 43-72.

SHE (2020), "SHE manual 2.0", available at: https://www.schoolsforhealth.org/resources/materials-and-tools/how-be-health-promoting-school (accessed 1 December 2021).

SHE (2021), "About us", available at: https://www.schoolsforhealth.org/about-us (accessed 1 December 2021).

Shoveller, J., Viehbeck, S., Di Ruggiero, E., Greyson, D., Thomson, K. and Knight, R. (2016), "A critical examination of representations of context within research on population health interventions", *Critical Public Health*, Vol. 26 No. 5, pp. 487-500, doi: 10.1080/09581596.2015.1117577.

St Leger, L. (2001), "Schools, health literacy and public health: possibilities and challenges", *Health Promotion International*, Vol. 16 No. 2, pp. 197-205, doi: 10.1093/heapro/16.2.197.

St Leger, L., Kolbe, L., Lee, A., McCall, D.S. and Young, I.M. (2007), "School health promotion: achievements, challenges and priorities", in McQueen, D.V. and Jones, C.M. (Eds), *Global Perspectives on Health Promotion Effectiveness*, Springer, New York, pp. 107-124.

Stewart-Brown, S. (2006), "What is the evidence on school health promotion in improving health orpreventing disease and, specifically, what is the effectiveness of the Health Promoting Schools approach?", World Health Organization, Copenhagen.

Suhrcke, M. and de Paz Nieves, C. (2011), "The impact of health and health behaviours on educational outcomes in high-income countries: a review of the evidence", World Health Organization, Regional Office for Europe, Copenhagen.

Turunen, H., Sormunen, M., Jourdan, D., von Seelen, J. and Buijs, G. (2017), "Health promoting schools—a complex approach and a major means to health improvement", *Health Promotion International*, Vol. 32 No. 2, pp. 177-184, doi: 10.1093/heapro/dax001.

UNICEF (2021), "Education overview", available at: https://data.unicef.org/topic/education/overview/ (accessed 1 December 2021).

World Health Organization (1986), *Ottawa Charter for Health Promotion: An International Conference on Health Promotion: The Move Towards a New Public Health*, Ottawa, Ontario.

World Health Organization (1997), "Promoting health through schools: report of a WHO expert committee on comprehensive school health education and promotion", Geneva.

World Health Organization (2017), "An effective approach to early action on noncommunicable disease risk factors", No. WHO/NMH/PND/17.3.

Yang, X., Telama, R., Hirvensalo, M., Tammelin, T., Viikari, J.S. and Raitakari, O.T. (2014), "Active commuting from youth to adulthood and as a predictor of physical activity in early midlife: the young finns study", *Preventive Medicine*, Vol. 59, pp. 5-11, doi: 10.1016/j.ypmed.2013.10.019.

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