Barriers and facilitators to the implementation of Health Promoting School programmes targeting bullying and violence: a systematic review

KEYWORDS

- Systematic review
- Qualitative
- Process evaluation
- School
- Bullying and violence

Word count: 3994 words

ABSTRACT

Health Promoting School (HPS) interventions aim to reduce bullying and violence via curriculum, environmental and family/community-engagement components. Despite evidence of their effectiveness, factors influencing the implementation of such interventions are poorly understood. This systematic review aims to examine such factors drawing on qualitative process evaluations. A comprehensive systematic search was carried out in MEDLINE, EMBASE, PsychINFO, Global Health, CINAHL, CENTRAL, SCI-EXPANDED, SSCI, A&HCI, CPI-S, CPI-SSH, and ESCI. Included papers report on process evaluations of HPS interventions aiming to reduce aggression, violence and bullying. Thematic synthesis was used to identify factors affecting implementation. Factors that enable implementation included leadership support and stakeholder buy-in, good communication and staff climate, and supportive national policy. Interventions were better implemented when they framed health promotion as a core school business, engaged parents, used local data to show need and effectiveness, and provided high-quality, pragmatic and accessible staff training. The results of this review can serve to guide and facilitate the design and implementation of future bullying and violence prevention programmes. Since there is significant overlap in terms of the important pillars and guiding principles for all interventions guided by the HPS framework, the findings may apply to outcomes beyond bullying and violence.

Introduction

Health promotion for children and youth enables immediate positive change, life course benefits and potential for transgenerational improvements. Settings-based approaches are among the most promising and effective options. [1,2] Since the vast majority of the populations in most countries attends schools, schools are an ideal setting for health promotion activities. Furthermore, the development of most major risk factors for illness or behaviours such as bullying and violence is not merely due to individual choices but the result of social influences related to settings. [3]

The Health Promoting Schools (HPS) approach has been proposed as a framework for settings-based health promotion [4,5] and involves: integrating health promotion into the curriculum, changing the physical and/or social environment, and engaging with families and/or local communities. [1] The HPS framework represents a whole population approach [6,7] in which interventions are not simply delivered within schools but aim to modify the school environment. [8]

A 2015 study of 33 countries indicates that almost a third of children reported occasional bullying victimisation within the past two months. [9] Bullying is usually described as an act or the repetition of acts of verbal, physical or other aggression intended to cause harm to the victim and is often characterised by power imbalances. [10] Bullying damages quality of life [11], and is associated with negative long-term effects on mental health. [12,13]

Many interventions target bullying and violence in schools, but not all use whole-school approaches. Individual-level interventions overall show little benefit. [14] However, interventions that fulfil HPS criteria have been found to be effective in reducing bullying and victimisation in a large number of quasi-experimental studies and randomised trials. [1,14,15][16]

An important question yet to be fully explored is why some HPS interventions targeting bullying or violence are better delivered than others and what factors influence this. Process evaluations provide evidence on factors facilitating or hindering implementation. [17] Process evaluations of school-based health promotion interventions in general suggest that successful implementation and sustainability are promoted by factors such as staff buy-in and adequate implementation support. [18–20] A 2014 review aimed to examine factors affecting implementation of HPS interventions in general but used narrow searches and only included six studies. [21] To date, no systematic review has examined the process of implementation of HPS interventions targeting bullying and violence.

Exploring stakeholders' views offers the opportunity to go beyond quantitative measures of fidelity, reach and acceptability, and qualitatively explore processes, different perspectives and contextual influences.

This review aims to address this gap and identify enablers and barriers to implementation, as perceived by staff, students and other stakeholders.

Methods

A systematic review of qualitative research on implementation was conducted. A protocol was outlined internally before the start of the review process.

Studies were included if they:

(a) reported on programmes aimed at reducing aggression, violence and/or bullying;

(b) fulfilled HPS criteria (curriculum, environmental change, and involvement of families and/or communities);

c) targeted school-aged children (aged 5-18) in schools; and

d) included qualitative data on stakeholders' views of the process of implementation.

A systematic search was designed to combine terms related to schools, health promotion, and bullying/aggression/violence, plus a filter to identify qualitative research (https://libguides.sph.uth.tmc.edu/search_filters) that was complemented with terms about implementation and process evaluations. This search was carried out on 25 June 2020 in MEDLINE, EMBASE, PsycINFO, Global Health, CINAHL, Cochrane Library (CENTRAL), SCI-EXPANDED, SSCI, A&HCI, CPI-S, CPI-SSH, and ESCI. The full search strategy can be found in Appendix A. No time or language restrictions were applied. References of the included studies were screened, and the authors of studies that were excluded but assessed to be on eligible programmes (e.g. studies of HPS programmes for which no qualitative process data was available) were contacted for additional reports.

Retrieved records were imported into Zotero 5.0 and de-duplicated. Titles and abstracts were screened against the inclusion criteria. MS screened all titles and abstracts, and RB screened a random 25% sample. A 92% initial agreement was achieved, and discrepancies were discussed to reach consensus. For references not excluded on title and abstract, full texts were subjected to analogous screening, with 90% initial agreement and ultimate consensus following discussion.

Data were extracted by study by MS and RB independently on setting, intervention type, study design, sample size, and study aim (verified by LB), as well as 'first order' (participant quotes) and 'second order' findings. MS performed data extraction for all studies, and RB extracted data from 10 reports (50%) on 7 studies. Data extraction was done in Microsoft Word using a standardised form.

The quality of all included studies was assessed by MS and RB independently using the Critical Appraisal Skills Programme (CASP) assessment tool for qualitative research. (CASP, 2019) No study was excluded based on poor quality but quality was considered in our reporting of review findings using GRADE-CERQual. [23]

The review used thematic synthesis methodology adapted from Thomas and Harden [24]. Each paper was read in-depth and text pertinent to the research question was coded line by line. Participant statements quoted in research reports were treated as first-order data and analysis or interpretation by researchers as second-order data. MS coded all reports, and RB coded 10 reports on 7 studies. Finally, these themes were compared by the reviewers across studies to identify third order themes based on initial in-vivo and subsequent axial coding. Differences between reviewers' analyses were discussed until consensus was reached. The third-order themes were treated as the review's findings. Confidence in each finding was assessed using the GRADE-CERQual approach, based on methodological limitations, relevance, coherence, and adequacy of data [23], and taking into account the diversity of programmes, settings and stakeholder groups represented. The quality assessment previously performed using CASP contributed to the weighing of the "methodological limitations" category. Within the latter, minor quality concerns were reduced, and a high confidence rating was attributed when themes were corroborated by multiple studies of which at least one was of high quality (defined has having no significant concerns regarding study design, recruitment, data collection and analysis). The coherence between the themes and the supporting first- and second-order quotes, and the final confidence ratings were double-checked by another reviewer (LB). The analytic approach and results were discussed among all authors.

This review follows the PRISMA [25] and ENTREQ [26] reporting guidelines.

Results

Description of search results and included studies

In total, 7023 records were retrieved (Figure 1). After deduplication, 4892 titles/abstracts were screened, leaving 475 papers which could not be excluded based on title and abstract for full-text screening, of which 17 papers were included. One additional report was identified by searching references and two by contacting authors. Two papers reported on the same study in the UK [27,28], two on the same study in Norway [29,30], and two on the same study in the USA [31,32], meaning that in total 20 papers reported on 17 studies.

Table 1 describes the included studies and provides CASP ratings for their quality. Seven studies were conducted in the USA, three each in Canada and the UK, two in Australia, and one each in New Zealand and Norway. Seven studies report on interventions in primary schools, five on secondary schools, two on middle/junior schools, one on alternative education, one on a variety of school types, and one which is unclear. Seven of the studies evaluated School-wide Positive Behaviour Supports (SW-PBS), two each evaluated the INCLUSIVE, Second Step and WITS interventions, and one each evaluated the Gatehouse Project, Healthy School Ethos, MindMatters, and the Olweus Bullying Prevention Project interventions (OBPP).

In terms of perspectives explored, 13 studies included teachers as participants, 11 included leadership personnel such as principals and school administrators, and 11 included implementation facilitators. Only four studies

included student views, three included parents/caregivers, and two included community representatives.

Included reports were mostly of good or acceptable quality. Five studies had limitations regarding the conduct or reporting of recruitment. Two studies failed to clearly report on their data collection methods. Only two out of 17 studies included an explicit indication of reflexivity. Ten studies failed to report ethical considerations. Four studies were assessed as lacking analytic rigour. All studies contributed to our thematic analysis.

Factors that affect the implementation of programmes

Enablers or barriers to implementation either concern stakeholders and their buy-in or characteristics of the programmes themselves. For each of these categories, a full list of synthesised concepts and associated studies is presented in Table 2, and examples of first and second order themes in Supplementary Table 1 (Appendix B).

Acknowledging the importance of stakeholder buy-in

Within the extended school setting (including parents/caregivers), four distinct groups of stakeholders and their views and roles have to be considered when implementing health promotion programmes. Data from the included studies suggest that each of these stakeholders' buy-in is a prerequisite for effective implementation and conversely, if absent, can be a major barrier to success.

Principals and school leadership constitute the first of the in-school stakeholder groups whose buy-in is crucial (supported by N = 9 studies). As one teacher described,

> *"The support of my principal has to come number one, because… getting the time on the timetable, setting up a team, can't happen unless you've got someone in administration that thinks it's a great idea*." Teacher [33]

Principals in turn depend on teachers and other school staff, who constitute the second group of stakeholders. (N = 8)

> *"I never implement anything if I don't have the majority of the teachers on board."* Principal [30]

Students are not only the third group of in-school stakeholders, but also the primary intended beneficiaries of most programmes, which makes their buy-in and active involvement essential (N = 7) as represented by the following quote from a deputy principal:

> *"The thing is, we had to sit back and listen, and we had to disempower ourselves, and empower the children and the community, and let them tell us what they wanted."* Deputy principal [34]

Finally, outside the school itself, parent involvement also appears to be important. When included, their active participation can contribute to the effectiveness of programmes by increasing reach beyond the school. (N = 5)

> *"Because the parents had buy-in, we got the parents there who felt empowered, especially with the children who had those behaviour issues or learning difficulties."* Teacher [34]

Additionally, data suggest that attention should be paid to the relationships among and between stakeholder groups. Findings from the included studies suggest that importantly, each stakeholder group's buy-in is positively influenced by the other groups' buy-in, creating a positive feedback mechanism. (N = 13)

One important theme that was frequently brought up by school principals and other school stakeholders was that a bad climate and lack of teamwork among staff can impede implementation of programmes. (N = 5) Conversely, a positive collaborative climate can enable implementation as suggested by the following quote by a staff member:

> *"Our staff is really very good, even though we are a small school. Somebody makes a suggestion and we all just kind of jump on board which is good."* School staff member [35]

One study of parents' views suggested that direct teacher-parent collaboration may be important to strengthen the intervention[36]

Another study suggested that when attempting to improve acceptability of programmes, staff should treat students with respect and lead by example in establishing positive norms in classrooms. [37]

One further group of actors that play an important role are external facilitators who can be important enablers of implementation, but can also hinder delivery if their involvement is inadequate, or if they communicate poorly or don't have clearly defined roles within the projects. (N = 6)

> *"They don't really do anything... Whether they bring anything to the meeting. I think once or twice they might have asked a couple of questions, but that's about it. They sit there looking to us."* Teacher [38]

Key enablers of stakeholder buy-in

Stakeholders operate and programmes are implemented within an environment that in itself has important characteristics that can act as barriers or enablers of implementation.

The most important theme that emerged across many different settings and stakeholders concerned what is perceived by stakeholders as the core business of schools. Whenever perceptions of schools' core business are narrow and reduced to the delivery of academic content, implementation of health promotion programmes is difficult. (N = 7)

> *"Many teachers have concerns about behaviours in their classrooms or the school, but the fact that it might involve a change in practices on the part of the teacher is a hard pill for some to swallow."* Educational consultant [39]

This is closely related to the misalignment of philosophies as another barrier. This misalignment applies to teachers who, as suggested by study participants, sometimes struggle with accepting changes to what they perceive to be or not to be their role as professionals, as well as to students and parents whose pre-conceived ideas and expectations with regards to the role of schools and teachers can become implementation barriers. (N = 8) Conversely, if staff who deliver programmes believe that this is part of what constitutes their role, this can enable implementation as suggested by one school administrator's response to a question on their reasons supporting the programme:

> *"I just really strongly believe that we need to equip kids in society today for what society is like and it's totally different."* School administrator [35]

Other important enablers to successful implementation identified in the studies were the perception of need for intervention (N = 4) and the perception of programme effectiveness, including advantages for stakeholders other than students. (N = 3)

> *"The biggest thing is to try to show them (schools) how it helps them.[…] And when you market that way with them, 'This will save you time. This will save you energy, frustration.' Then I think that's the biggest thing. So, it works.*

That's, that's why, when teachers see that something works, it's great."

School staff member [35]

One barrier frequently cited by participants across studies was the presence of many fragmented interventions that contribute to staff overload and stakeholder confusion (N = 4):

"I guess what's happened with teachers is they see these glossy, fancy, new packages and programs come along, [and they think] 'oh here's the flavour of the day.'" School staff member [35]

Furthermore, lack of contextual awareness on the part of intervention developers or delivers for constraints on schools relating to the built environment, school or group size, or timing of interventions could hinder implementation (N = 3), as could poor communication among staff and between stakeholders. (N = 7) As one educational consultant explained,

"What makes communication with staff effective is that it is short, to the point, and comes at them from multiple directions." Educational consultant [39]

One local barrier frequently brought up by various stakeholders across studies was the lack of needs awareness and ways to measure and steer development due to a paucity of local data. (N = 8) Local data can be used to document needs and monitor change. Where local data were available and used by schools, stakeholders perceived this as an important enabler, as described by one student involved in a programme's action group:

"It (having the data) was quite useful to us because the aggression level was quite high so now we're trying to think of ideas to … get it back down."

Student [28]

With regards to broader influences, the absence of a supportive national policy, curriculum or other higher-level guideline related to bullying and violence prevention was perceived as a barrier. (N = 4) Stakeholders, especially school leadership personnel, perceived it to be a major enabler if programmes were in line with national education policies:

> *"I just heard this afternoon that the Ministry, who provided work through the "Erase Bullying Campaign" with [the Premier's] initiative last summer, that they now have a four year plan. […] And who knows what other pieces it will bring."* Principal [40]

Factors related to programme characteristics

With regards to the programmes themselves, evidence from the included studies suggests that one of the most important aspects is the provision of good and pragmatic training for teachers (N = 7). Training should also be accessible both in terms of time and budget:

> *"People are trained repeatedly on the basics and to the point where when the teachers come through the program, it's just a part of their repertoire. It's not a technique anymore; it's just the way they do business."* Programme Coach [41]

Programmes had to be flexible enough to allow schools to tailor them to their local needs. (N = 6) As one principal noted in replying to whether any concerns existed around implementation,

> *"Were there any potential negatives going into it? I don't think so because, you know, with these sorts of things you think we're going to make it work for us. So, if problems arise, we'll address them and if we need to adapt it for our*

context and our circumstances, we'll do that, so I didn't really have any doubts." Principal [27]

Furthermore, it is suggested that programmes should be designed to be appropriate for and tailored to students with regards to age, developmental status and especially culture (N = 4) as illustrated by this quote:

> *"As an example, one lesson addressed children's need for understanding and obeying instructions, and the accompanying picture was an illustration of some children in their home yard standing behind a fence. The accompanying picture and the lesson seemed meaningless in the context of these children, because they all lived in neighbourhoods where they did not have a clearly bounded home yard; instead, there were large common areas where they were allowed to play."* Teacher [29]

Some studies suggested that school-wide approaches should be complemented with targeted individual measures to reach students that may not benefit as much from a general approach. (N = 2)

> *"We have individualized programs for students who do not thrive under school-wide or class-wide interventions."* School administrator [41]

Other studies suggested the importance of curricula striking a balance between variety and ease of use, the latter, for example, through offering detailed manuals. (N = 3)

> *"It felt somewhat safe to follow their "recipe" on the back of the picture"* Teacher [29]

An important barrier frequently described was the competition for time between the programme and the academic curriculum. (N = 5) As one principal noted (also further highlighting the importance of leadership support):

> *“Earlier in the third grade, the teachers complained about having too little time for working with reading and writing skills and that they wanted to use the time when the class was divided to focus on these subjects. But this time was intended to be used for Second Step. I therefore allocated more teaching resources, to ensure that they were also able to administer Second Step to the divided class.”* Principal [30]

Finally, stakeholders suggested that when implementing bullying-prevention programmes, opportunity costs regarding time and other resources should be avoided. Programmes should avoid over-burdening staff. (N = 5) Time should be taken to develop a common language and consistent procedures as part of an agreed social environment. (N = 6)

How to facilitate the implementation of programmes

The above results can further be organised into eight themes and 25 sub-themes representing enablers of implementation for these programmes. These themes are presented in Table 2 along with the studies that contributed to them and their GRADE-CERQual confidence rating including considerations of study quality using the CASP ratings.

Discussion

Summary of key findings

The importance of stakeholder buy-in is well described for any kind of health promotion activity, including school-based approaches. [18–21,42,43] This review

corroborates this from the perspective of school community stakeholders, and identifies key influences of stakeholder buy-in and programme characteristics that may further enable implementation. Findings with high or moderate confidence ratings are summarised below.

When implementing HPS bullying and violence prevention programmes, the buy-in of all stakeholder groups should be ensured. Each group's buy-in enables the buy-in of other groups. Stakeholder buy-in can be improved through actions on different levels.

At a higher level, framing health promotion and social skills as a core business of schools as well as supportive national policies and guidelines can facilitate implementation. At the institutional level, good communication is key, which includes setting realistic expectations and providing clear guidance. A positive climate among staff members facilitates their buy-in. Local data should be used to demonstrate need and document change. [44]Efforts should be made to avoid the presence of many fragmented interventions, and external implementation support should be offered where sensible. At the individual level, perceived need and benefits of programmes and the alignment of personal philosophies about the role of schools are important influences.

In addition to these stakeholder factors, characteristics of the programmes themselves that enable implementation are the provision of high-quality and accessible teacher training, programme adaptability, and efforts to avoid competition for time with the academic curriculum. Programmes should focus on the social environmentand be culturally appropriate to their setting.

Figure 2 depicts the interplay between the different actors and implementation facilitators, and offers a summary of enabling factors for which high or moderate

confidence ratings were attributed. This can serve to guide and facilitate the design and implementation of future bullying and violence prevention programmes. Since there is significant overlap in terms of the important pillars and guiding principles for all interventions guided by the HPS framework, the findings may apply to outcomes beyond bullying and violence.[20]

Limitations

Firstly, the literature search could have been complemented by searching specific journals, the grey literature and databases about education.

Most of the studies included in the review have some methodological limitations and the review attempted to account for this in the assessment of confidence for review findings. Furthermore, the included studies were limited to five high-income countries. Major geographical areas of the world were not represented at all, undermining generalisability since the implementation of school-based programmes is, as indicated by our findings, dependent on the broader political, cultural and institutional context.

Finally, parent and community representatives' perspectives were only covered by three and two studies out of 17 respectively. This is important given our finding that parents, families and communities are key pillars of the HPS approach. Student views were only covered by four studies, which is also problematic since they are the intended primary beneficiaries. Children's voices are often overlooked in research and practice. [45]

Implications for research and practice

To our knowledge, this is the first systematic synthesis of stakeholder views on the implementation of bullying and violence prevention programmes under a HPS

framework. The results can inform their design and implementation to increase acceptability and feasibility.

Firstly, it offers stakeholder-centred insights into the importance of buy-in among school principals, staff and students, and describes various factors that enable this buy-in. Among other factors, in the long run, efforts should be made to frame health promotion and social skills including bullying and violence prevention as a core business of schools. Local data should also be used to create awareness and steer efforts for change. Efforts should be made to align philosophies of stakeholders with regards to what constitutes the core business of schools and other factors to ensure local buy-in. Furthermore, programme leaders should avoid multiple, fragmented interventions. Instead, broad unifying frameworks like HPS should be implemented within which all interventions can fit.

Secondly, the review offers insights into how the programmes can be designed to be easier to implement and ultimately more effective. Among these characteristics are a focus on the social school environment, cultural appropriateness, flexibility and adaptability, avoiding over-burdening staff, and good and pragmatic teacher training. ‘Plug-and-play’ resources should be available so they can be used by teachers with minimal preparation. Training has to be of high quality and delivered flexibly, accounting for time constraints, budget and teachers’ or other implementers’ preferences.

In terms of future research, students’, parents’ and local communities’ perspectives are an important gap in the literature on whole-school approaches to bullying and violence.

Evaluations should strive to demonstrate to what extent health promotion programmes may have positive effects on educational attainment since this is often perceived as the core business of schools by decision-makers. [43]

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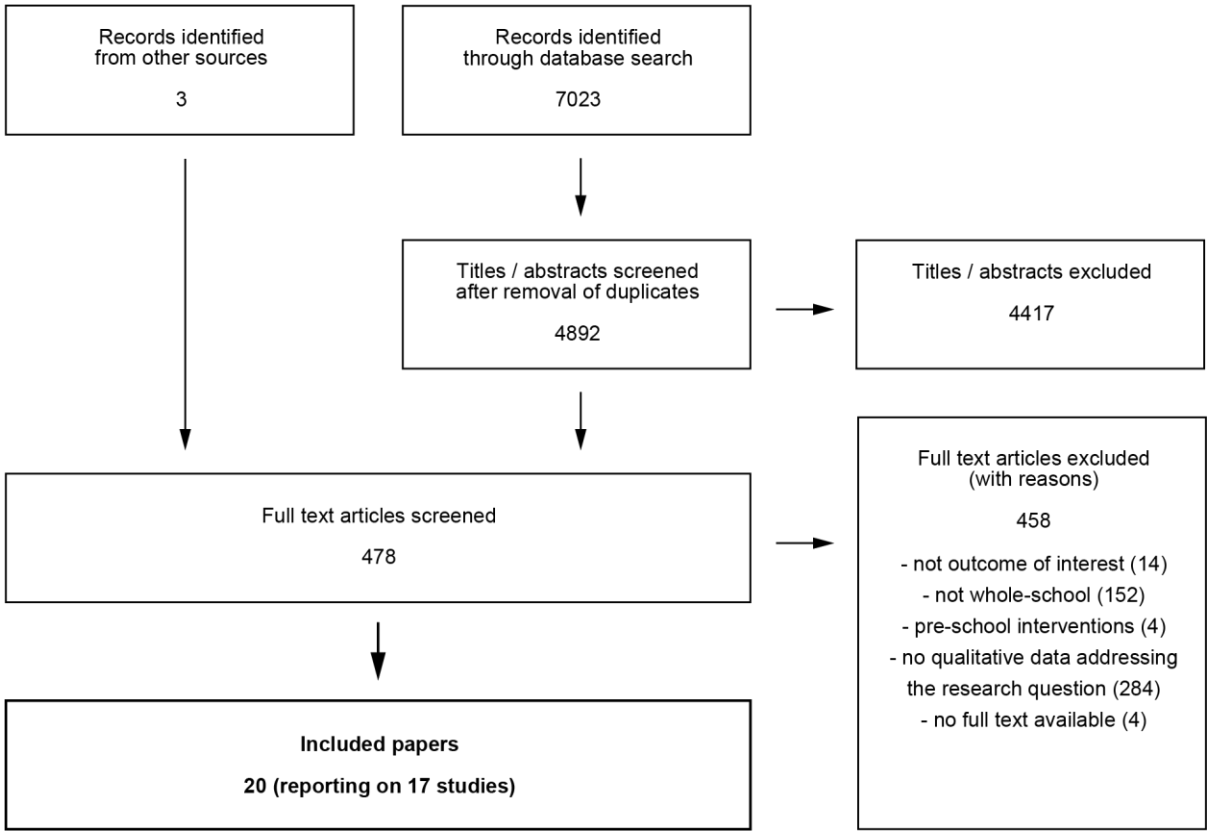

Figure 1: Flowchart of the search, screening and inclusion process for this review

Intervention	Study	Location	School type	Participants	Main qualitative data sources	Study aims	Quality (CASP)
Gatehouse Project	[33]	Victoria, Australia	12 secondary schools	26 key informants with coordinating positions in schools	semi-structured interviews	"To understand the changes that were taking place in the intervention schools"	Y-Y-Y-U-U N-U-U-Y-Y
Healthy school ethos	[46]	England, UK	2 secondary schools	9 school staff (including teachers), 3 facilitators, 3 students	semi-structured interviews	"To examine whether [Healthy school ethos] was feasible and acceptable in English schools"	Y-Y-Y-Y-Y N-Y-Y-Y-Y
INCLUSIVE	[27]	London & south-east England, UK	4 secondary schools	34 interviewees and 20 focus group discus-sions (FGDs) with staff (including managers, teachers and facilitators) and students	semi-structured interviews, FGDs	"To examine the feasibility and acceptability of implementing and trialling the INCLUSIVE (initiating change locally in bullying and aggression through the school environment) intervention in English secondary schools"	Y-Y-Y-Y-Y N-Y-Y-Y-Y
	[28]	London & south-east England, UK	4 secondary schools	126 students and 36 staff (including managers, teachers and facilitators)	semi-structured interviews, FGDs	"To consider how can we involve young people in changing their school environment to make it safer"	Y-Y-Y-Y-Y N-Y-Y-Y-Y
INCLUSIVE	[38]	London & south-east England, UK	20 secondary schools	113 interviewees and 30 FGDs with teachers, managers, facilitators, other staff and students	semi-structured interviews, FGDs	"To examine […] research questions (concerning Action Groups, e.g.:) What role did (action groups) play in coordinating the intervention? Were (action groups) acceptable to, and engaging and empowering for their members?"	Y-Y-Y-Y-Y N-Y-Y-Y-Y
MindMatters	[47]	Sydney, Australia	11 secondary schools	11 school staff including teachers	semi-structured interviews	"To assess the strategies, achievements and challenges of implementing MindMatters and the views of the partner schools towards the buddy support scheme"	Y-Y-Y-U-U N-U-U-Y-Y
OBPP	[37]	rural Eastern USA	1 junior high school	nine key informants including principal, teachers, facilitator & parent	semi-structured interviews	"To identify the school culture characteristics that supported or interfered with implementation of the Olweus Bullying Prevention Program from the viewpoint of school staff key informants in a junior high school"	Y-Y-Y-U-Y N-U-U-Y-Y
Second Step	[48]	Southeastern USA	3 middle schools	140 sixth-grade students	semi-structured interviews	"To identify factors that make adolescents more or less likely to generalize the social and emotional skills taught in Second Step"	Y-Y-Y-Y-Y N-Y-Y-Y-Y
Second Step	[29]	Norway	4 primary schools	17 teachers	semi-structured interviews	To examine "how and why teachers used the Second Step program, and how and why they adapted the program"	Y-Y-Y-Y-Y N-U-Y-Y-Y
	[30]	Norway	4 primary schools	4 principals or coordinators, 17 teachers	semi-structured interviews	To "present principals' (and teachers') reports of their role and experiences in implementing the programme in their school by asking them what they did and why."	Y-Y-Y-Y-Y N-U-Y-Y-Y
SW-PBS	[49]	British Columbia, Canada	3 elementary schools and the school district office	17 "educators" (administrators, consultants, teachers)	semi-structured interviews	"To examine both enablers and barriers to sustaining Tier I SW-PBS."	Y-Y-Y-U-Y Y-Y-Y-Y-Y

SW-PBS	[50]	Midwestern USA	6 schools (elementary, middle, high)	50 parents, 76 teachers and non-teaching staff	FGDs	"This paper explicates how schools might address barriers to parent involvement."	Y-Y-Y-Y-Y N-U-U-Y-Y
SW-PBS	[31]	Connecticut, USA	1 elementary school	21 staff members in 5 focus groups (teachers, support staff incl. consultants, administrators)	FGDs	To "discuss the perspectives of the teachers and support staff in the implementation of a schoolwide program to prevent bullying and their suggestions for modifications that will enhance future program delivery."	Y-Y-Y-Y-Y N-U-Y-Y-Y
	[32]	Connecticut, USA	1 elementary school	21 staff members in 5 focus groups (teachers, support staff including consultants, administrators)	FGDs	"(a) identifying the difficulties that some students had learning the skills and (b) the additional supports needed to support students in skill acquisition"	Y-Y-Y-Y-Y N-U-Y-Y-Y
SW-PBS	[39]	10 states of the USA	not specified	14 educational consultants working in various schools	semi-structured interviews	"To document and contextualize technical assistance providers' observations and perspectives about what factors influenced or explained school personnel's resistance toward implementing the universal level of SW-PBS."	Y-Y-Y-Y-Y N-U-Y-Y-Y
SW-PBS	[34]	New Zealand	2 primary schools	11 participants (including principals, teachers, support staff and facilitators)	semi-structured interviews	"To investigate the themes that emerged relating specifically to the implementation of PBS in the school."	Y-Y-Y-Y-Y N-U-Y-Y-Y
SW-PBS	[36]	Southwestern USA	3 elementary schools	28 parents and primary caregivers	FGDs	"To examine the specific experiences and events that impact the quality of communication about student behaviour between teachers and family members of students with Tier 1 and Tier 2 support needs."	Y-Y-Y-Y-Y Y-Y-Y-Y-Y
SW-PBS	[41]	USA	5 alternative education schools and facilities	10 individuals incl. an administrator, teachers, support staff, facilitators.	semi-structured interviews	"To examine the process of implementing the PBIS framework within alternative education settings from the perspective of key stakeholders."	Y-Y-Y-U-Y N-U-Y-Y-Y
WITS	[35]	British Columbia, Canada	7 elementary schools	20 individuals (teachers, principals, counsellors, support staff, community rep.)	semi-structured interviews	To describe "the champion's (implementers) experiences of discovering, actively evaluating and sharing these Programs in their own elementary school settings."	Y-Y-Y-Y-Y N-Y-Y-Y-Y
WITS	[40]	British Columbia, Canada	8 elementary schools	24 individuals (teachers, principals, counsellors, support staff, community rep.)	semi-structured interviews	"To illustrate, more generally, the issues that schools consider in planning to sustain a program that they have already invested considerable effort to implement."	Y-Y-Y-Y-Y N-U-Y-Y-Y

Table 1: Characteristics of included studies and CASP quality rating. FGD = focus group discussion; for the Quality Appraisal, Y = yes, N = no, and U = unclear. The order of criteria follows the order in the tool (1. clear statement of aims, 2. appropriate qualitative methodology, 3. appropriate research design, 4. appropriate recruitment, 5. appropriate data collection, 6. reflexivity, 7. ethical considerations, 8. rigour of data analysis, 9. clarity of statement of findings, 10. value of research).

Review Finding	Contributing Studies (N)	Confidence (CERQual)	Notes on confidence rating
1.1 – Importance of Stakeholder Buy-In			
1.1.1 – Key Stakeholders and "Buy-in Enabling Buy-in"			
Strong leadership support: School principals and leadership teams should provide their support to the staff to implement different aspects of the programme. Since they have both authority within the school setting and representative functions that reach beyond schools, their contribution is critical.	N = 9 [27,28,30,33,38–40,46,47,49]	high	Evidence from 7 P in 5 C, different ST, different SG. High coherence, adequacy and relevance. Minor methodological concerns compensated by high-quality studies.
Staff buy-in: Staff members should be involved in every step of programme implementation and should, in the process, develop a sense of programme ownership. Their buy-in enables other stakeholders' buy-in.	N = 8 [27,30,33,34,39–41,49]	high	Evidence from 5 P in 6 C, different ST, different SG. High coherence, adequacy and relevance. Minor methodological concerns compensated by high-quality studies.
Student buy-in: Active, productive and realistic involvement of students is an important enabler of success. Their buy-in also enables other stakeholders' buy-in.	N = 7 [27,28,31,34,38,40,46–48]	moderate (+)	6P, 4C, different ST, different SG. High relevance and adequacy, slight issues with coherence, and minor methodological concerns for some of the studies.
Parent involvement: Involving parents can increase acceptability and ensure that programme effects reach beyond the school borders. Parent involvement should go beyond merely informing them of a programme, and parents need clear guidance regarding involvement.	N = 5 [31,32,34,36,40,50]	moderate	2P, 3C, elementary schools only, staff and parents' views. High relevance, incomplete adequacy and coherence, and minor methodological concerns for some of the studies
1.1.2 – Inter-stakeholder Relationships			
Good staff climate: A positive social climate and teamwork among staff are key enablers of programme implementation.	N = 5 [33,35,37,39,47]	moderate (+)	5P, 3C, different ST, different SG. High relevance and coherence, minor concerns around adequacy, and minor methodological concerns for some of the studies.
Teacher-parent collaboration: Teachers taking parents' suggestions into account and parents reinforcing the intervention at home may enable implementation success.	N = 1 [36]	very low	Evidence from one relevant and methodologically sound study that presents parents' views. Major concerns regarding adequacy.
Staff treating students with respect: Establishing positive norms and relationships may be an enabler of implementation success.	N = 1 [37]	very low	Evidence from one relevant study that presents staff views. Major concerns regarding adequacy; some methodological concerns.
1.2 – Enablers of Stakeholder Buy-in			
1.2.1 – Higher-level Influences on Stakeholder Buy-in			
Framing of health promotion and social skills as core business of schools: Efforts should be made to widen perceptions of schools' core business beyond the delivery of academic content to enable implementation of health promotion programmes.	N = 7 [27,29,30,33,39,40,46,47]	high	7P, 5C, different ST, different SG. High coherence, adequacy and relevance. Minor methodological concerns compensated by high-quality studies.
Presence of supportive national policies or guidelines: Coherent national guidance and precedence make it easier for schools to implement programmes.	N = 4 [27,29,40,49]	moderate	3P, 3C, different ST, different SG. High relevance and coherence, minor concerns regarding adequacy, minimal methodological concerns for some of the studies.
1.2.2 – Institutional Influences on Stakeholder Buy-in			
Good communication: Organisation, communication, clear guidance and the establishment of realistic expectations are important enablers of implementation success.	N = 7 [27,37,39,40,47,49,50]	moderate (+)	5P, 4C, different ST, different SG. High relevance and coherence, minor concerns regarding adequacy, minor methodological concerns for some of the studies.
Avoiding many fragmented interventions and programmes: One important enabler of implementation	N = 4 [33,35,39,41]	moderate	3P, 3C, different ST, staff and facilitators' views. High coherence and relevance,

success is to have broad frameworks like HPS or a broad prevention programme within which interventions or programmes of interventions can be carried out.			minor concerns regarding adequacy, minor methodological concerns for some of the studies.
Contextual awareness: Pragmatic factors like timing, the existence of systems for collaboration, and limiting factors like group and school sizes should be considered to identify possible barriers.	N = 3 [31,37,41]	very low	2P in the USA, different ST, staff views only, good coherence and relevance, major concerns regarding adequacy, and minor methodological concerns.
1.2.3 – Individual Influences on Stakeholder Buy-in			
Perceived need: The perception of need within the school is an important enabler of implementation success. Demonstrating need can be a way to increase stakeholder buy-in.	N = 4 [27,34,35,39]	moderate	3P, 4C, different ST, different SG. High coherence and relevance, minor concerns regarding adequacy, minor methodological concerns for some studies.
Perceived effectiveness and benefits: The anticipation that the planned interventions are effective and benefit other stakeholders in addition to students is an important enabler of implementation success. Demonstrating effectiveness can be a way to increase stakeholder buy-in.	N = 3 [34,35,48]	moderate	3P, 3C, different ST, student and staff views, high coherence and relevance, some concerns regarding adequacy, minor methodological concerns.
Alignment of philosophies: Efforts should be made to align personal beliefs with the HPS framework's philosophy regarding the role of schools, for example through active discussion and the involvement of all parts of the community.	N = 8 [27,32,34–36,39,48,49]	moderate	4P, 4C, different ST, different SG. High relevance, minor concerns regarding adequacy and coherence, minor methodological concerns for some of the studies.
1.2.4 – Procedural Influences on Stakeholder Buy-in			
Use of local data: Local context-specific data should be used to create awareness, support the need assessment and monitoring system, and demonstrate change.	N = 8 [27,28,33,34,38,39,41,46,49]	moderate (+)	5P, 5C, different ST, different SG. High coherence and relevance, minimal concerns regarding adequacy, minor methodological concerns for some of the studies.
External implementation support: Strong facilitation can be an important enabler of implementation, especially when external implementers have clear roles, communicate well, and are adequately involved.	N = 6 [27,33,38,41,46,49]	moderate	4P, 3C, different ST, different SG. High relevance, minor concerns regarding adequacy and coherence, and minor methodological concerns for some of the studies.
2 – Enabling characteristics of programmes			
2.1 Programme Implementation			
Good, accessible and pragmatic teacher training: Teachers should be equipped with the knowledge and skills necessary to implement programmes. Training should be organised in a manner that does not interfere with their other obligations. Attention should be paid to training new teachers.	N = 7 [29,34,39,41,46,47,49]	moderate (+)	4P, 5C, different ST, different SG. High relevance and coherence, minimal concerns regarding adequacy, and minor methodological concerns for some of the studies.
Management of competition for time between the programme and the academic curriculum: Researchers and implementers should consider conflict for time when designing and implementing programmes to avoid over-burdening teaching staff.	N = 5 [29,30,38,41,47,50]	moderate	4P, 4C, different ST, different SG. High relevance and coherence, minor concerns regarding adequacy, and minor methodological concerns for some of the studies.
Programme adaptability: Programmes should be designed to be flexible enough to allow for tailoring and context-specificity.	N = 6 [27,29,38,40,46,49]	moderate	4P, 3C, different ST, different SG. high relevance and coherence, minor concerns regarding adequacy, and minor methodological concerns for some of the studies.
Balance between variety and ease of use: Programmes should strike a balance between the two, for example by providing detailed manuals.	N = 3 [29,32,35]	low	3P, 3C, different ST, staff views only, acceptable coherence and relevance, concerns regarding adequacy, and minor methodological concerns.

2.2 Programme Components			
Focus on the social school environment: Programmes should be designed to address the social environment and offer stakeholders clear, agreed upon language and terms of conduct.	N = 6 [30,31,37,40,41,49]	moderate	4P, 3C, different ST, staff and facilitators' views, high relevance and coherence, minor concerns regarding adequacy, and minor methodological concerns for some of the studies.
Cultural and age appropriateness: Programmes should be designed to be appropriate for students with regards to age, development and culture. This is especially critical when programmes and materials are transferred between settings or countries.	N = 4 [29,31,34,47]	moderate	3P, 4C, different ST, staff views only, high relevance and coherence, minor concerns regarding adequacy and minor methodological concerns.
Complementing the school-wide approach with targeted individual measures: Programmes should include individual elements to additionally reach specific students with behaviour problems who might not benefit as much from a general approach.	N = 2 [32,41]	low	Evidence from 2 studies of the same type of programme in the USA, different school types, staff views only, acceptable coherence and relevance, concerns regarding adequacy, and minor methodological concerns.
Supporting skills required to implement interventions, e.g. self-efficacy, openness, tolerance. Participants identified lack of self-efficacy, negative emotions and not remembering how to use a skill as barriers to intervene. Training might help improving the latter.	N = 2 [37,48]	very low	Evidence from 2 programmes in the USA, one school type, staff and student views, acceptable coherence and relevance, substantial concerns regarding adequacy, and minor methodological concerns.

Table 2: Summary table of review findings and confidence assessment using the GRADE-CerQUAL approach. P = programmes, C = countries, ST = school types, SG = stakeholder groups.

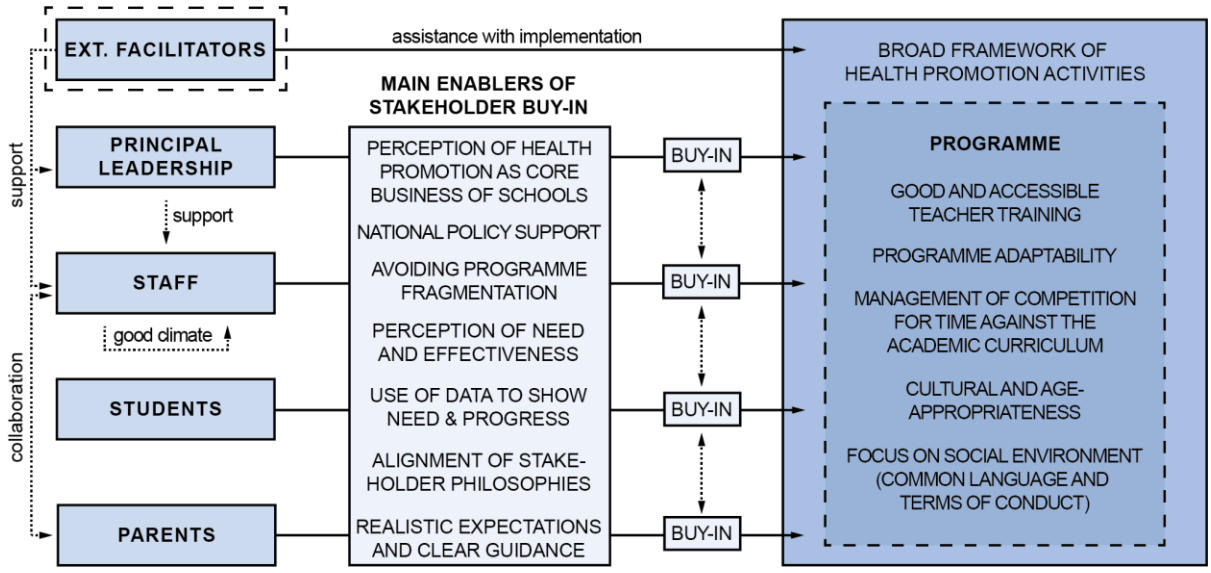

Figure 2: Enablers of Programme Implementation.