LITERATURE REVIEW

Whole School Approach to Wellbeing in Childhood and Adolescence

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Whole School Approach to Wellbeing
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in association with

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This literature review serves as a companion to the summary report, Whole School Approach to Wellbeing in Childhood and Adolescence. This report can be found in full at wellbeing.hmc.ox.ac.uk/schools

Further information can be found on the International Baccalaureate website at ibo.org/research

Executive Summary

This report delves into the concept of the Whole School Approach (WSA) as a dynamic strategy to enhance wellbeing within the school environment. Anchored in theoretical frameworks such as Bronfenbrenner's Ecological Systems Theory and Social Learning Theory, WSAs aim for a profound and lasting impact on the school context. The primary objective of this report is to provide an overview of the current state of knowledge on WSA, covering topics on common themes in WSA research, impact on wellbeing, factors contributing to effectiveness and challenges during implementation. The ultimate goal along with other mini reports is to serve as a digital, evidence-based repository for schools, aiding in the measurement, monitoring, and support of the wellbeing of young people.

This report conducts a scope review of current research on the Whole School Approach, examining its applications and effectiveness. Firstly, this report reveals research on WSA focusing on outcomes such as Risky Behaviour, Social and Emotional Learning, Physical and Mental Health, and Teacher and Staff Wellbeing. Evaluated WSA interventions are presented in a detailed table, including target population, setting, evidence level measures, and outcomes to provide readers with a comprehensive understanding. Secondly, the report highlights key elements critical for successful WSA outcomes, such as School Climate and Ethos, Family and Community Involvement, Participatory Involvement, Intervention Duration, Incorporating Targeted Interventions, and Policy considerations during implementation. Thirdly, it explores mixed results across age, gender, and socio-economic status in WSA research. Fourthly, the report identifies common barriers to implementing WSAs, including insufficient resources, participant (dis)engagement, and leadership challenges, emphasizing the need for clear guidelines. Finally, commonly used measurements in WSA research can also be found at the end of the report.

In conclusion, this report encapsulates the potential of the Whole School Approach, emphasizing its promise in fostering a supportive and inclusive environment involving the entire school community. Success hinges on effective implementation, stakeholder commitment, adequate resources, and a nuanced understanding of the diverse needs of the school community. Thus, schools, leveraging their first-hand knowledge, understanding of their student populations, are active architects of their students' wellbeing journeys. Acknowledging diverse backgrounds, needs, and aspirations, schools play a pivotal role in fostering wellbeing in their context. This adaptability and customization also underscore the critical role schools play in using evidence-based interventions to inform policies and practices.

Introduction

The IBO and the Wellbeing Research Centre at the University of Oxford have worked together on a series of reports focused on wellbeing in schools. Two foundational reports, 'Wellbeing in Education in Childhood and Adolescence' and 'Wellbeing for Schoolteachers', have been published and give detailed information about the IBO's approach to wellbeing. We suggest that readers first explore these foundational reports to gain a detailed understanding of wellbeing in schools before reading this series of brief reports on the drivers of wellbeing.

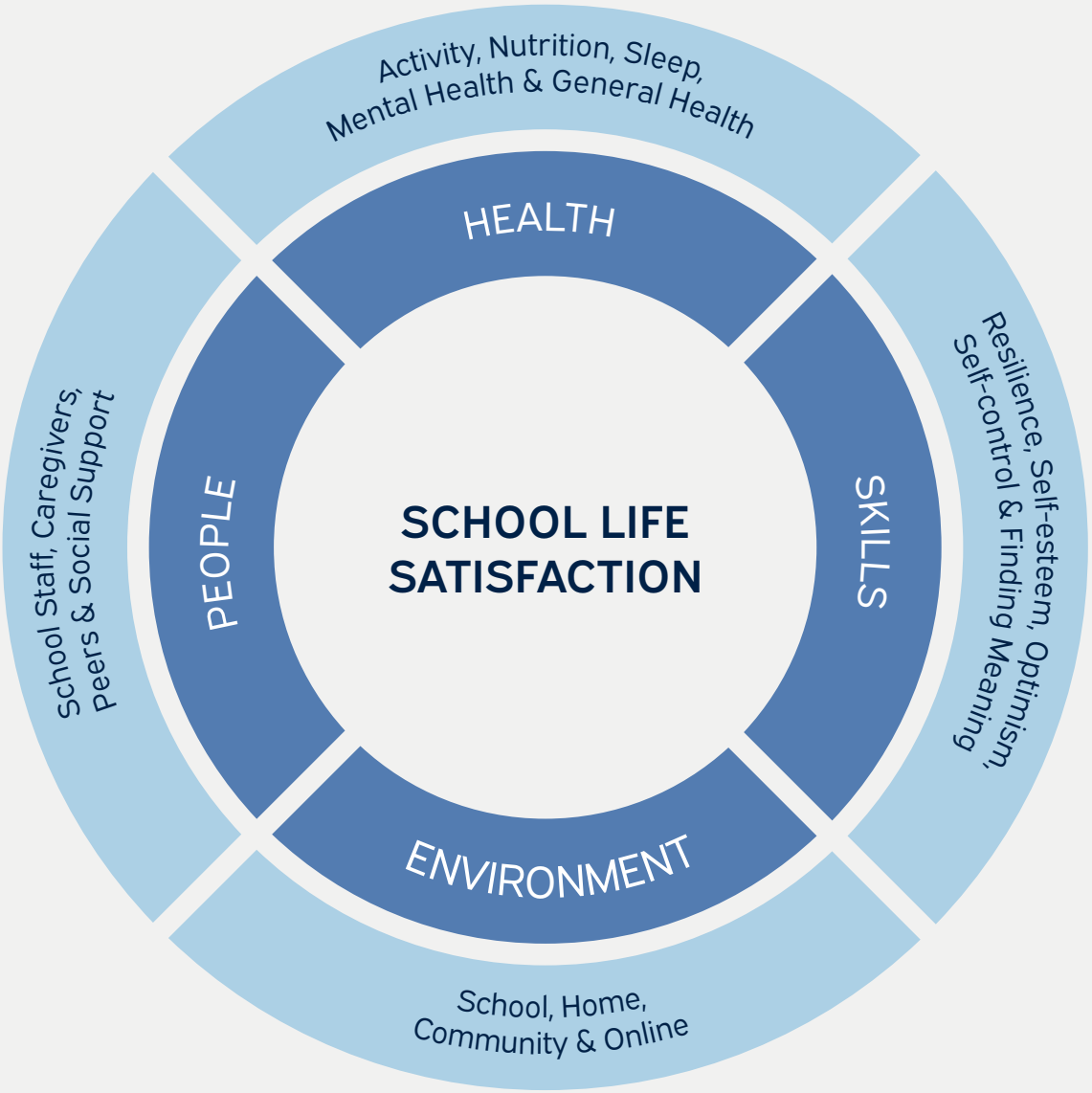
For this report, it is important to highlight what we mean by wellbeing. In our published reports (exploring the wellbeing of young people and schoolteachers), we focus on subjective wellbeing, which refers to the individual's perception of their own wellbeing. In schools, wellbeing is often used as a catch-all term for anything that sits outside academic attainment. This makes it difficult for schools to measure and implement changes, because the parameters are so broad and intangible. Wellbeing science is an established area of academic research, and we employ insights from the empirical science of wellbeing to inform these reports.

In school settings, wellbeing is often misunderstood as simply the opposite of mental ill health or happiness. However, in the 'Wellbeing in Education in Childhood and Adolescence' report, we clarify the differences between these concepts and how schools can use these definitions to decide which aspects of wellbeing to measure and impact. The definitions we recommend in the report remove the drivers of wellbeing (like resilience, mental health, family, peers, teachers, etc.) from the definition and focus on the three key areas of subjective wellbeing: life satisfaction; affect; and eudaimonia.

FIGURE 1: COMPONENTS OF WELLBEING

LIFE SATISFACTION	This element captures young people's satisfaction with their lives, their perception, and experience.
AFFECT	The feelings, emotions, and states of a young person at a particular timepoint, including both positive affect (e.g., joy, happiness, pride) and negative affect (e.g., sadness, depression, anxiety).
EUDAIMONIA	Whether young people feel their life is worthwhile or has purpose and meaning (this can include autonomy, capabilities, competencies, and other areas of psychological functioning).

FIGURE 2: THE SCHOOL LIFE SATISFACTION FRAMEWORK



The core outcome of the wellbeing framework for young people for this project is satisfaction with school life. We focus on the life satisfaction area of subjective wellbeing as the key outcome for the frameworks for practical reasons, but we also emphasise the importance of affect and eudaimonia. These outcomes were selected as they represent the areas that schools can most influence. The framework is presented in Figure 2. The framework has the key performance indicator (KPI) or outcome variable in the centre, and all the drivers that research evidence has suggested influence this outcome surrounding it. It is important to note that this framework only focuses on the evidence for wellbeing and, as such, there may be other research that schools may wish to consider, beyond the scope of these reports, which focus on other positive outcomes for young people.

Each driver has varying degrees of influence on the wellbeing of individuals depending on factors such as the age of the individual and their environment. For example, we know that peers are very important to the wellbeing of adolescents, but to a lesser extent for younger children. This framework gives ultimate flexibility and can be adapted over time to incorporate new insights.

In the 'Wellbeing in Education in Childhood and Adolescence' report we give examples of definitions that schools can use. For young people, we suggest that a school-specific definition, including all three areas, is most appropriate:

> *"This school promotes the wellbeing of all pupils. We define wellbeing as our pupils being satisfied with their school lives, having positive experiences at, and feelings about, school, and believing that what they do at school gives them some purpose and meaning."*
>
> [Edited extract from the 'Wellbeing in Schools in Childhood and Adolescence' Report; Taylor et al., 2022]

Purpose and Scope of the Focused Report

This series of intervention reports is intended to give the IBO and schools a more nuanced understanding of the drivers of wellbeing for young people. Each report contains scientific research, interventions, measurement, and discussion around a specific driver of wellbeing. Each of the topics within these reports has differing levels of scientific evidence, and one of the main aims of these reports is to summarise what we know now about a topic and what further work needs to be done. Ultimately, we aim for these reports to become part of a digital, evidence-based repository which schools can use to measure, monitor, and support, the wellbeing of young people.

The Importance of Wellbeing Interventions for Children

An in-depth discussion of this topic can be found in the report 'Wellbeing in Education in Childhood and Adolescence'. The report discusses three important reasons why schools should seek to improve the wellbeing of their pupils: firstly, childhood and adolescence are important periods in their own right, and every young person has the right to have a positive experience in this critical formative period; secondly, higher wellbeing in childhood and adolescence is associated with other benefits for young people, such as higher attainment, better mental health, and positive pro-social behaviour. Finally, it is important to maximise wellbeing in childhood and adolescence because of the long-lasting impact this has on their future, including their adult levels of wellbeing and job prospects.

The report emphasises that there is value in using school time, money, and resources to improve pupil wellbeing. These improvements will likely not only have immediate benefits for students but will have a driving effect on other positive outcomes (individually, socially, and academically) and have a positive impact on the future lives of the young people as they mature into adulthood. Importantly, there is seemingly no trade-off to make between wellbeing and academic performance. Put simply; happier children make better learners. Schools can feel confident to use time and resources to improve pupil wellbeing in the knowledge that it will likely also lead to improvements in their core business of academic attainment.

[Edited extract from the 'Wellbeing in Schools in Childhood and Adolescence' Report; Taylor et al., 2022]

In this mini report, we explore the concept of the Whole School Approach (WSA) as a dynamic and inclusive strategy for enhancing wellbeing within the school environment. By investigating a range of WSA interventions outlined in the literature, we uncover common themes and the impact they have on wellbeing and its drivers within schools. Additionally, we consider the factors that contribute to intervention effectiveness, as well as the challenges faced during implementation. Finally, this report also includes measurements that commonly used in WSA studies.

This report underscores the significant role of schools in tailoring interventions to their unique student populations and prioritizing holistic development. WSAs can be used in conjunction with the individual drivers of wellbeing highlighted in the Pupil Wellbeing Framework (above) to create a bespoke intervention within a school that considers all the stakeholders within that school population and the different approaches that could be taken to enhance the driver (or drivers) and overall wellbeing for members of the school community.

The Whole School Approach Definition

Within scientific research, interventions are actions which are made within an existing context, to bring about a desired change. Within educational research, interventions can be broadly separated into three different approaches: targeted, universal, and whole school.

FIGURE 3: INTERVENTION APPROACHES IN EDUCATION

TARGETED APPROACH

Targeted education interventions are interventions which are directed towards a specific population within the school community. Often this approach is used when trying to improve outcomes for an at-risk population. Within wellbeing research, for example, a targeted intervention might include identity and confidence workshops for students with very low self-esteem.

UNIVERSAL APPROACH

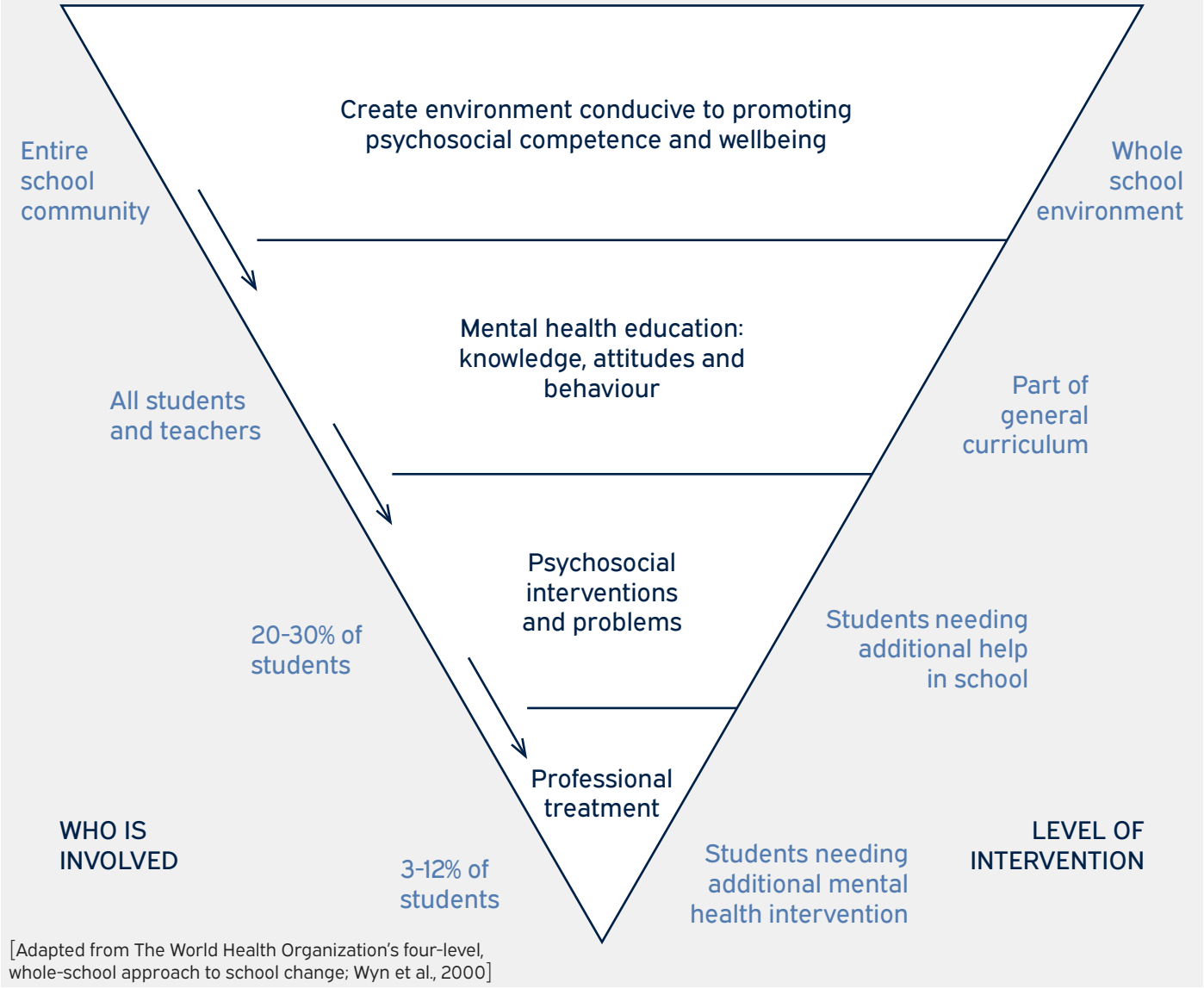
Universal education interventions deliver an intervention to a population regardless of the needs or characteristics of the population. In the context of wellbeing research, a universal intervention might include mindfulness workshops to be delivered to all pupils within a particular year group.

WHOLE SCHOOL APPROACH

The Whole School Approach (WSA) considers more than just the participating individuals in the intervention, and considers the school as a dynamic and complex ecosystem. The intervention actively engages with the school as a unique system, taking into account different stakeholders and contextual factors. A WSA wellbeing intervention might consider pupil interventions, teacher interventions, new policies, interactions with parents, or community support.

The WSA encompasses the idea that for interventions to positively affect student social, emotional, and academic outcomes, the entire school context must be considered (Goldberg et al., 2019). WSAs are informed by holistic theoretical underpinnings, such as Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner & Morris, 2006), and Social Learning Theory (Bandura, 2001), which focus on the impact of the social context on child development and functioning. Further theoretical understanding in this area has emphasised the importance of relationships and the social environment within a school context—namely, peer-to-peer relations, pupil-to-teacher relations, fostering a strong school community, and promoting cross-cultural connections (Markham & Aveyard, 2003). Thus, WSAs incorporate a broad notion of the school context, involving the curriculum and teaching, school culture and ethos, policy and operations, the physical environment, and relationships and partnerships within the school and the larger community in which the school resides (WHO, 2021). The focus of the WSA thus steps beyond the individual towards addressing organisational and structural frameworks in the hope of bringing about more extensive, deeper, and long-lasting impact (Lee et al., 2019; WHO, 2021; also see Figure 1). More specifically, interventions designed with the WSA in mind, connect efforts among the various school stakeholders (administration, staff, teachers, pupils, parents, and wider community), and integrates wellbeing into the everyday participation of school life (Weare & Nind, 2011; WHO, 1996).

FIGURE 4: WORLD HEALTH ORGANIZATION'S WHOLE SCHOOL APPROACH



[Adapted from The World Health Organization's four-level, whole-school approach to school change; Wyn et al., 2000]

The Whole School Approach in Research

Schools are valuable places for intervention implementation given that they are spaces dedicated to learning and that both staff and students spend a large proportion of their time at school (Goldberg et al., 2019; WHO, 1996). However, the impact that an intervention has depends on a myriad of factors. Overall, reviews and meta-analyses exploring WSA interventions have found that, when implemented correctly, WSAs are more effective than interventions focusing on a single-component such as curriculum-orientated approaches (Barry et al., 2013; Catalano et al., 2002; O'Reilly et al., 2018; Tomé et al., 2021; Weare & Nind, 2011; Wells et al., 2003). Not only have WSA interventions been found to improve wellbeing outcomes directly, and indirectly (e.g., by reducing risky behaviours such as bullying or substance abuse; Goldberg et al., 2019), but they have also been found to help improve academic outcomes (Dix et al, 2012; Durlak et al., 2011; Leger et al., 2022). Furthermore, the emphasis of WSAs on a wider student demographic brings additional advantages, such as helping to reduce stigma around mental health issues and raise awareness of its promotion, with potential lasting effects at the population level (Bonell et al., 2019).

Research on the effectiveness of WSA interventions in the context of wellbeing have mostly focused on physical health (in areas such as obesity), bullying, and social and emotional learning, often with reference to secondary outcomes related to wellbeing and mental health. For school stakeholders planning to use a WSA focused on wellbeing, such research is worth examining. Not only are the above-mentioned factors known to impact wellbeing (Arslan et al., 2021; Dunne et al., 2017; Govorova et al., 2020; Rigby, 2003), but the body of research also provides useful guidance and frameworks for anyone wishing to implement a WSA intervention in their school.

The Whole School Approach in Policy

Many government bodies have actively emphasised and promoted the effective use of WSAs. For instance, in the UK, Public Health England have produced a succinct report on health and wellbeing in schools with a key focus on WSAs (Public Health England, 2015). Moreover, the National Institute for Health and Care Excellence [NICE] also published a new Whole School Approach guidelines framework in 2022 (NICE, 2022). Such WSAs, the reports suggest, should extend beyond learning in the classroom to include wider aspects such as school culture, teaching and learning, partnerships with stakeholders, and the provision of visible senior leadership for emotional health and wellbeing. The Welsh government also released a report that emphasised the need to "address the emotional and mental wellbeing needs of all children and young people, as well as school staff, as part of the whole-school community" (Education Wales, 2021, p. 5; emphasis in original). Similarly, the Australian Education Services (Western Australia, 2021) developed a national framework for the Commonwealth Department of Education to support all Australian schools to promote positive relationships and wellbeing of students and educators within safe, inclusive, and connected learning communities.

The WSA has also inspired international education policy and frameworks. The most well-known being the World Health Organization's (WHO; 1996) Health Promoting Schools (HPS) framework which actively encourages health using a WSA with a focus on health and wellbeing. The study highlights that most HPS efforts target obesity and there is a scarcity of evidence regarding outcomes like wellbeing. Moreover, it's worth noting that the HPS approach is notably underrepresented in low-income settings and carried out more with children rather than adolescents (Langford et al., 2016). This report delves into the existing research in the field of Wellbeing WSAs and critically summarise valuable insights to potentially guide school initiatives related to wellbeing.

Areas of Focus in WSAs

This report has thus far provided an overview of the WSA, definitions and research focus, as well as outlining some of the key frameworks that have adopted WSAs. In the following section we move on to consider focal areas of research within the field of WSA literature to explore how WSAs have been used to target wellbeing and secondary outcomes related to wellbeing in the school context (e.g., risky behaviour, social and emotional learning, and mental health). It should be noted that these wellbeing factors and outcomes are often interconnected and affect each other leading to some ambiguities, overlap, and reiteration in the literature. The findings are consolidated into a table of recommended WSA interventions (see Table 1), based on the following focal research areas.

- Risky Behaviour
- Social and Emotional Learning
- Physical and Mental Health
- Teacher and Staff Wellbeing

Risky Behaviour

WSA interventions have been commonly employed with the aim of reducing risky and violent behaviour. Research demonstrates that experiences of bullying and violence at a young age influence pupils' wellbeing and health (e.g., Bonell et al., 2019). Further research exploring the use of WSAs to target bullying have found mostly positive results in reducing instances of bullying; as well as increasing confidence among victims of bullying to report such instances (Hurry et al., 2021; Ttofi & Farrington, 2011; Vreeman & Carroll, 2007). Because of the large-scale, systemic, and complex nature of bullying, interventions that focus singularly on the curriculum have been viewed as less effective than WSAs (Cross et al., 2011; Rigby & Slee, 2008; Stevens et al., 2001; Vreeman & Carroll, 2007). For instance, an analysis of the INCLUSIVE (Initiating Change Locally In Bullying and Aggression Through the School Environment) study found that the WSA is more effective than curriculum only interventions (Warren et al., 2019). INCLUSIVE as an intervention involved; joint review, planning, and monitoring of schools by school action groups; external facilitation with staff training in restorative practices; and a new social and emotional skills curriculum in 8 UK secondary schools. Still, it should be noted that whilst WSA interventions have shown positive outcomes, their effect size tends to be small-to-moderate. This could be due to challenges with implementation (e.g., Higgins & Booker, 2023) or, as Cross and colleagues (2011) suggest, might indicate a need to couple WSAs with more targeted approaches, aimed directly at bullies and/or victims who may require further assistance.

Other WSAs have focused on reducing risky behaviours such as substance abuse or dangerous sexual health practices, often addressed in relation to violence or bullying. For example, the Aban Aya Youth Project which implemented a WSA intervention involving both a SEL curriculum component and a school-wide climate, parent, and community component, in 12 schools in Chicago, USA, found a 34% reduction in substance use, reduced violence and truancy, and better sexual health among boys (Flay et al., 2004). One review of the WHO's HPS programs conducted by Langford and colleagues (2014), found that students in HPS intervention groups were less likely to smoke or report being bullied (in addition to positive outcomes for body mass index, physical activity/fitness, and nutrition). However, outcomes related to alcohol and drug use, mental health, violence, and bullying others remained seemingly unchanged in the reviewed interventions. In part this was attributed to a lack of evidence for these outcomes (of 67 reviewed studies, only two focused respectively on alcohol intake, sexual health, violence, and mental health). Further challenges to gaining results around these complex variables were also highlighted, including issues with measurement (e.g., bias in self-report data), missing or incomplete data, and small variances between control and interventions schools also accounting for inconclusive outcomes (Langford et al., 2014). In a subsequent paper, Langford et al. (2016) note that, unlike interventions around elements like nutrition and physical activity which can be more intuitively amended into the HPS approach, creating changes to the school environment to improve sexual health outcomes or reduce substance use are less immediately obvious given that these behaviours largely occur outside of schools. This systematic review suggest that in order for WSAs to be successful in promoting these more complex outcomes, they must not only foster a different ethos and culture within schools but also improve engagement with families and communities beyond minimal and tokenistic efforts. Encouragingly, still, the overall evidence on WSA interventions focused on reducing risky behaviours have found favourable outcomes, with small to moderate effect sizes regarding instances of bullying and substance use as well as secondary wellbeing and mental health outcomes.

Social and Emotional Learning

WSA interventions have also been shown to help foster social and emotional skills. Social emotional learning (SEL) skills, such as regulating emotion, maintaining good relationships, or being able to handle conflict have all been associated with improvements in wellbeing, health, behaviour, and other positive outcomes (Goodman et al., 2015; Graetz et al., 2008; OECD, 2015). Goldberg et al.'s

(2019) meta-analysis on SEL interventions in schools found that WSA interventions, in particular, showed small but significant effects on enhancing SEL skills, behavioural outcomes, and internalising symptoms. The study notes also that previous meta-analyses focusing on universal SEL interventions (which are delivered to all children as opposed to a targeted subset of students, but which do not necessarily address multiple components or engage various stakeholders as a WSA would) also report high effect sizes for SEL outcomes, helpful behavioural markers, and academic success (Durlak et al., 2011; Sklad et al., 2012). Other reviews on WSAs have also highlighted the importance of promoting SEL skills within the curriculum so as to form part of everyday school life, with particular focus placed on implementing these interventions in an active and inclusive manner (Jané-Llopis, 2007; Matos et al., 2012; Pearson et al., 2012; Weare & Nind, 2011).

This focus on promoting SEL through WSAs has also led to the development of notable programmes. One such programme, "MindMatters" (Wyn et al., 2000), has received acclaim due to its bringing together of mental health promotion, prevention, and early intervention, reflecting "a tripartite best practice model" (Wright, 2015). Another notable program designed using a SEL WSA is the Social and Emotional Aspects of Learning (SEAL) program in the UK, which aimed to provide staff training around SEL support and awareness of mental health issues, improve school policies and ethos, and implement changes to curricular content for students (Banerjee et al., 2014; Hallam, 2009). The SEAL program, however, faced challenges with high variance in program adoption and fidelity across schools, limited implementation time, loss of interest and effort among teachers and staff when results were not immediately forthcoming, and failed to produce significant results in terms of pupils' social and emotional skills, general mental health difficulties, pro-social behaviour, or behaviour problems (Humphrey et al., 2010).

Such challenges, in fact, far from plaguing the SEAL program alone, seem to limit positive outcomes of WSA interventions for SEL across various program and country settings. Though WSAs are generally considered essential to SEL provision (Cefai et al., 2018; Oberle et al., 2016), the complexity of such interventions makes the implementation, participant engagement, programme adoption and fidelity challenging. As a result, evidence from reviews and meta-analyses of SEL targeted WSAs remains mixed. While some studies (e.g., Adi et al., 2007), present comparatively favourable evidence for WSAs that include significant teacher training and development and support for parenting (with some emphasis on community-based approaches such as in extra-curricular clubs, Das et al., 2016), as opposed to 'curriculum only'-based approaches, these results were not unanimous (Wigelsworth et al., 2022). One meta-analysis on universal SEL interventions found that though WSA interventions showed some effect, it was not significant compared to single-component interventions (Durlak et al., 2011). The authors suggest this lack of difference in significance may be due to WSAs being too ambitious in their aims, thus spreading resources too thin and diluting the intensity of intervention effects. Further, the authors postulate that the dilution of intervention effects may arise from incomplete intervention implementation and lack of engagement on the part of participants, as seems to have been the case with SEAL, as noted above. Wigelsworth and colleagues (2022) further note that, due to the relative paucity of comprehensive evaluations on WSAs to promote SEL, it remains difficult to analyse the "usefulness and importance of specific multi-component elements in the field, especially in relation to how they may support or interact with other components"(p.915). They suggest, with an acknowledgement of others who have also suggested such solutions (e.g., Lendrum & Humphrey, 2012; Wigelsworth et al., 2020), that greater specification in respect to capturing these components is needed in implementation design. It is apparent, therefore, that while WSA interventions focusing on SEL can bring about positive outcomes for students, more work in the realm of implementation science is needed to understand how schools can best be supported to effectively integrate WSAs for improved SEL.

Physical and Mental Health

Schools are understood to have the potential to profoundly influence the health of young people with research suggesting that the values, ethos, and culture, promoted in schools are critical in this regard (Bonell et al., 2013; Jamal et al., 2013). WSA interventions have therefore also been conducted with the aim of improving physical health outcomes and behaviours. While current evidence is dominated by interventions on obesity (Langford et al., 2016), a growing body of literature has placed a focus on nutrition, physical activity, and a combination of the two. However, there is still a paucity of evidence around outcomes such as sexual health and substance use (Langford et al., 2014). The WSA literature is therefore predictably stronger in its evidence for positive outcomes around physical activity, fitness, Body Mass Index (BMI) and improved nutrition (e.g., Langford et al., 2014; O'Brien et al., 2021), while falling short of substantial evidence for outcomes like drug intake, physical violence, and other health behaviours (e.g., Bonell et al., 2013; Langford et al., 2014). Moreover, while much work in this regard has been done in the health sciences, this work among educationalists has lagged behind (Langford et al., 2016; Mohammadi et al., 2010), leading to gaps in knowledge about how such strategies might best be integrated in schools.

Still, in line with Markham and Aveyard's theory of human functioning and school organisation, some emphasis

has been placed on understanding the school-level contexts which might influence pupil health and health-related behaviour. One such paper (Jamal et al., 2013), a systematic review of qualitative studies, found four overarching meta-themes that emerged across studies focused on a range of different health issues. The first meta-theme notes that substance use, and aggressive behaviour, tend to be stronger among youth who feel educationally marginalized or unsafe and therefore seek a source of status and bonding through these behaviours. Secondly, behaviours posing health risks tend to cluster in unsupervised 'hotspots' within the school. The third theme highlights the importance of positive relationships with teachers as critical in limiting risk behaviour, noting that when these are hampered by school organisation or education policy constraints students turn to health-risk behaviour for a sense of identity and social support. Lastly, feelings of dissatisfaction at school can lead students to seek avenues of 'escape,' whether by leaving the school premises during lunch or for extended, unauthorized periods or resorting to substance use. Another review of the literature on treating schools as health environments similarly reported a range of long-term positive health behaviours when the larger school context was considered, particularly involving families in the process, and making changes to the school environment (Rowe et al., 2010). Besides making a case for WSAs in schools as a way of addressing health outcomes, such studies help to understand the underlying and contextual factors at play, and from there to understand what elements of school ethos and organization should be tackled if a WSA is to be successful in improving health outcomes.

WSAs have also attempted to address mental health outcomes. Programmes developed to promote mental health and reduce mental ill-health (such as depression and anxiety) have been found to be most effective when part of a multi-level and systems-based WSA, rather than single-component mental health specific programmes (Caldwell et al., 2019). Particularly highlighted as imperative for creating effective mental health promotion programmes, were building good relationships at school (with peers, teachers, and staff); the engagement of supportive infrastructures beyond the school (i.e., with the home environment and the local community); as well as making positive mental health an integral part of the ethos and climate at school (Warwick et al., 2009; Weare & Nind, 2011; Wells et al., 2003). Overall, WSAs focused on physical and mental health promotion have reported favourable impacts for pupils in this regard.

Teacher and Staff Wellbeing

Acknowledgment of the importance of teachers and staff wellbeing has grown considerably, and this has been explored in the companion Wellbeing for Schoolteachers report (Taylor et al., 2023). In tandem with this growing understanding of the important role that teacher wellbeing plays within the school community, the scope of WSA interventions has also expanded. Teachers and staff at school can have a large impact on the wellbeing and academic achievement of pupils through teacher behaviours, attitudes, and role-modelling (Cefai et al., 2021). In this regard, Lester et al. (2020) demonstrated how a supportive community at school (including a sense of belonging, shared purpose and goals, supportive relationships, and meaningful and influential engagement) positively affected the wellbeing of school staff, which further impacted the wellbeing and academic achievement of pupils. This is in line with Cefai and Cavioni's (2014) conceptual framework showing how schools can be valuable health-promoting contexts, by providing ways for staff to maintain their wellbeing through supportive relationships, meaningful engagement with their work, and sufficient resources to care for their own health. It is therefore crucial that any WSA which aims to improve wellbeing and academic attainment among students also address the wellbeing of their teachers and staff (Jennings et al., 2017; Weare & Nind, 2011).

WSA interventions have also been found to provide valuable support structures, assisting teachers in fulfilling the learning and communication needs required of them by their professional roles (Culshaw & Maitland, 2021; Goldberg et al., 2019). Feeling valued and supported in their pedagogical roles can also bolster the development of positive staff-student relationships, particularly with students experiencing mental health or academic-related issues, which has been emphasised in several WSA frameworks (Hurry et al., 2021; Rae et al., 2017). One qualitative study by Brady and Wilson (2021) further explored the types of school-level teacher wellbeing initiatives that were deemed effective by teachers themselves. The research discovered that the wellbeing initiatives that received the highest positive feedback were those integrated into a nurturing overall school culture. These initiatives focused on reducing excessive workloads while concurrently fostering a sense of autonomy, connection, and competence. The least effective measures were ones that reacted to a perceived problem without seeking to address the root causes of poor wellbeing. Teachers on the whole therefore favoured school policies and practices which promoted meaningful (and limited) workloads, rather than one-off or short-term wellbeing activities (Brady & Wilson, 2021). School leaders, administrators, and policymakers therefore also play a pivotal role in creating a wellbeing-supportive environment that recognizes teachers' needs and improves the overall morale at school; as well as providing supervision, mentoring, and professional development and opportunities for connection and autonomy so that teachers can fulfil their roles without sacrificing their wellbeing (Gu & Day, 2011 Morris et al., 2020). For a further detailed discussion of the role of teachers and their wellbeing in schools, please see the Wellbeing for Schoolteachers report (Taylor et al., 2023).

Link to Wellbeing Framework

Within the school context, the WSA has been instrumental in addressing critical areas such as risky behavior, social and emotional learning, physical and mental health, as well as the wellbeing of teachers and staff. This evidence can be paired with the Wellbeing Framework presented at the start of this report which highlights the drivers of wellbeing for pupils in schools. Specifically, social and emotional learning WSA interventions naturally falls within the drivers of 'skill' and 'people,' given that the development of social-emotional skills not only promotes resilience but also nurtures positive social relationships. WSAs for risky behaviour, physical, and mental health are inherently linked to the 'health' category, and the WSAs for improving the wellbeing of teachers and staff is encompassed within the broader 'people' category in the wellbeing framework. Given the intricate relationships among these categories and their profound influence on students' school wellbeing, it becomes evident that a holistic, WSA is the most effective path forward. To delve further, the following section outlines a compilation of recommended interventions that have thoughtfully embraced the principles of the whole school approach. As we recommend in the Wellbeing in Education in Childhood and Adolescence report (Taylor et al., 2022), it is important that schools incorporate pupil and staff voice into any decisions about which drivers of wellbeing to influence and which WSAs to select, given that this increases the likelihood of acceptability and efficacy.

Interventions

Findings from an array of WSAs have been condensed into the following table to illustrate examples of WSA interventions with varying levels of efficacy. The table provides detail regarding target population, setting, evidence level measures, and outcomes. For an in-depth understanding of the various levels of evidence, please refer to the levels of evidence section below. In the WSA table below we begin by listing the WHO's (1996) Health Promoting Schools (HPS), as well as some of the main interventions that have utilised this approach, expanding on it in various ways and making notable additions. The table then lists WSAs interventions focused on bullying and risky behaviours, followed by SEL-focused interventions, before concluding with WSA interventions focused on teacher and staff wellbeing. Notably, though country settings vary somewhat (with most of those listed taking place in Australia), few large-scale interventions have been conducted in middle- and lower-income countries. In the results section for each intervention, we mainly focus on wellbeing-related outcomes as these are the outcomes of interest for this report.

Levels of Evidence

Below, we describe the various levels of scientific evidence and how we have ascertained the quality of the studies we include in the tables below (adapted the Joanna Briggs Institute (JBI) "Levels of Evidence and Grades of Recommendation and Methods and critical appraisal for evidence-based practice"; LoBiondo-Wood & Haber, 2022)

- Systematic Reviews and Meta-Analyses (level 1): These are comprehensive reviews of the literature that synthesise the findings of multiple primary studies. In a systematic review, researchers typically assess the quality of each study included and assign a level of evidence based on the study design, sample size, potential biases, and other relevant factors. They then use this hierarchy of evidence to draw conclusions and make recommendations. In a meta-analysis they also gather the original data from the selected studies and conduct new analyses to understand more than what can be learned from one primary study.

- Randomized Controlled Trials (RCTs; Level 2): These are experimental studies where people are randomly assigned to groups (e.g., treatment and control) by chance to see if an intervention has an effect on the group (or groups) that receive it (compared with the group that does not).

- Quasi-experimental Studies (Level 3): Quasi-experimental studies are research designs that share similarities with experimental studies but do not involve random assignment of participants to groups. They aim to investigate cause-and-effect relationships but often lack the complete control of variables seen in randomized controlled trials (RCTs).

- Observational – Analytic Designs (Level 4): These studies are designed to provide evidence that helps establish cause-and-effect relationships or identify associations. To conduct analytic observational studies, researchers typically employ various study designs, including cohort studies, case-control studies, and cross-sectional studies.

- Meta-synthesis (Level 5): Meta-synthesis is a research method used to synthesize and analyse findings from multiple qualitative studies. It involves systematically reviewing and integrating qualitative data from various sources to generate new interpretations or insights.

- Qualitative Studies (Level 6): Qualitative studies focus on exploring and understanding the experiences, perceptions, and meaning-making processes of individuals or groups. They often involve in-depth interviews, focus groups, or content analysis to capture the nuances and context of a phenomenon.

- Expert Opinions (Level 7): Expert opinions are typically reports or recommendations provided by panels of experts or professional organizations. They are not based on empirical research but rather on the collective knowledge and expertise of recognized authorities in a specific field. These opinions are valuable for providing guidance, consensus statements, or expert advice based on their experience and expertise.

In addition, we consider several other factors when evaluating research and interventions: including sample size, the characteristics of the study population, methodology, reliability, and validity. These elements are crucial in determining the strength and relevance of the evidence. Larger sample sizes often lead to more robust findings, increasing the potential for broader applicability. However, smaller sample sizes can still provide valuable insights, particularly when studying specific or niche populations. The characteristics of the study population are also vital considerations, as research outcomes may vary based on participant diversity. Methodology must be considered in terms of realism vs control and what can be reasonably achieved given the constraints such as ethics, resources, scientific rigour, and practicality. Moreover,

reliability and validity are of utmost importance. Reliable research designs ensure consistent reproducibility of results, while validity ensures that the study accurately measures what it aims to. Therefore, a research design that is both reliable and valid is essential for rigorous research. For further information on research methods, we recommend referring to the book 'Research Methods in Education' by Louis Cohen, Lawrence Manion, and Keith Morrison.

In delineating the various levels of evidence, it's imperative to emphasize that the prominence of interventions validated through RCTs does not diminish the value of interventions validated through qualitative studies. Rather, it underscores that certain interventions may be more amenable to rigorous scientific investigation due to the nature of their design, or the cost associated with conducting RCTs.

It's essential to recognize that interventions established through qualitative research hold unique significance and may prove to be indispensable in specific educational settings.

TABLE 1: EVALUATED WHOLE SCHOOL APPROACH INTERVENTIONS

Intervention	Description	Details	Evidence Level	Effect Size	Results
Health Promoting Schools (HPS) Framework (WHO, 1996) Dray et al. (2017)	Utilising strategies to encourage a school community to collaborate in providing students with integrated and positive experiences and structures which promote and protect their health. This includes both the formal and informal curricula in health, the creation of a safe and healthy school environment, the provision of appropriate health services and the involvement of the family and wider community in efforts to promote health. Strategies designed to address one or more internal (cooperation/communication, empathy, goals/aspirations, problem solving, self-awareness, self-efficacy) or external resilience protective factors (school support, school meaningful participation, peer caring relationships).	32 secondary schools (most aged 12-16 years) *n*= 3,115 Australia	Cluster RCT	Total SDQ: Mean diff (95% CI) = 0.43 (−0.23, 1.08), *p*= 0.2 Internalising: Mean diff (95% CI) = 0.10 (−0.37, 0.58), *p*= 0.66 Externalizing: Mean diff (95% CI) = 0.42 (0.04, 0.80), *p*= 0.03 Prosocial behaviour: Mean diff (95% CI) = −0.08 (−0.29, 0.12), *p*= 0.43 No effect size	At follow-up, there was no significant difference between the HPS intervention group and the control group in: Strengths and Difficulties Questionnaire, prosocial behaviour, and internalising problems. At follow-up, there was a small, statistically significant improvement in the control group for externalising problems in comparison with the intervention group.
The Friendly Schools Intervention (Using HPS Framework) Cross et al. (2011)	Based on the Principles of Successful Practice for Bullying Reduction in Schools (Cross et al., 2004) and in accordance with WHO's HPS (1996) model, the intervention aims to build students' social competence and relationships to reduce the likelihood of bullying, and to reduce the harm students may experience from bullying. The intervention involves school staff, parents, and students.	29 primary schools (8-9 years) *n*= 1,968 Australia	RCT	Post-test 3 comparison group (bullied vs not at all) = -38.50% Post-test 3 intervention group (bullied vs not at all) = 3.60%	The intervention was found to significantly reduce the likelihood of being bullied both 1 year and 3 years after the intervention period (though not at 2 years post-intervention). The intervention group were more likely to have self-reported about bullying at 1, 2, and 3

					years post-intervention, in comparison to the control group.
Cross et al. (2011)		21 secondary schools (13-14 years) *n*= 3,462 Australia		Effects size range between 0.11 and 0.20.	In comparison to the control group, the intervention was found to significantly improve victimisation, perpetration, depressive symptoms, anxiety, stress, loneliness, and safety. The statistically significant improvement was not sustained at second follow-up. Effects size ranges between 0.11 and 0.20.
Gatehouse Project (Using HPS Framework) Bond et al. (2004)	The intervention builds on the WHO's HPS (1996). Intervention elements ranged from establishing an inclusive classroom environment to creating opportunities for student participation in school life beyond the classroom. It included implementing a student curriculum that teaches interpersonal communication and emotional management.	26 secondary schools (13-16 years) *n*= 2,678 Australia	RCT	No overall data available. Extensive reporting of Odds Ratios and confidence intervals.	The intervention was found to reduce the likelihood of students engaging in the following risky behaviours: drinking, tobacco use, and the alcohol and tobacco use of friends. The intervention did not have a significant effect on depressive symptoms and school relationships.

KidsMatter (Using HPS Framework) Slee et al. (2012)	Based on the WHO's HPS (1996). Involved a four-part conceptual framework, (1) positive school community, (2) social and emotional learning for children, (3) parent support and education, and (4) early intervention.	100 primary schools (9 years approx.) Staff *n*= 1194 Parents/carers *n*= 5070 Child *n*= 11224 Australia	Longitudinal (4 time points across 2 years)	Improvement in knowledge and actions was reported as medium effect in high implementing services and small effect size in low implementing services. (Not numeric.)	After the intervention, staff reported improvements in their pedagogical experiences, including but not limited to: job satisfaction, working relationships with parents and peers, self-efficacy, and knowledge transfer. Child outcome improvements were reported to be small effects in many facets, including but not limited to: adult-child relationships, temperament, and mental health difficulties.
Hong Kong Healthy Schools Award (Using HPS Framework) Lee et al. (2006)	Using the WHO's HPS (1996), the award aimed to promote staff development, parental education, involvement of the whole school community, and linkage with different stakeholders to improve the health and wellbeing of the pupils, parents and staff, and the broader community, supported by a system to monitor the achievement. The award provides a structured framework for development as well as a system of monitoring and recognition of achievement.	9 schools, primary and secondary *n*= 4343 Hong Kong	Pre- Post-tests	No effect size reported. Only percentage differences available.	The schools which were applying for Healthy Schools Award accreditation (indicating closer adherence to the HPS programme) showed greater improvements than non-accredited HPS schools in: academic outcomes, health, dietary behaviours, violence, theft/ damage of property, life satisfaction, reported self-harm, and smoking.

INCLUSIVE (Initiating Change Locally in Bullying and Aggression Through the School Environment) Bonell et al. (2019)	Whole-school restorative approach to address bullying and aggression, involving school action groups and external facilitation to review needs assessment data, identify priorities, and plan and monitor school-level actions; staff training in restorative practices; and a new social and emotional skills curriculum.	8 secondary schools (age 12-13 years) *n*= 6667 UK	RCT	All adjusted effect sizes: GBS Overall Score: - 0.08, *p*= 0.0441 ESYTC Overall Score: - 0.03, *p*= 0.4199 MBI (at 36 months): Emotional Exhaustion Score: - 0.55, *p*= 0.3625 Depersonalisation Score: 0.03, *p*= 0.9276 Personal Achievement Score: 0.20, *p*= 0.6127 SF-12 v2 (at 36 months): Physical Health Score: - 0.61, *p*= 0.1058 Mental Health Score: 0.31, *p*= 0.5691	The intervention was found to have a small effect size in improving: bullying, quality of life, psychological wellbeing, and have a positive influence on other socio-emotional outcomes (such as conduct, hyperactivity, peer relationships, and emotions). The intervention was found to reduce the likelihood of antisocial behaviours, pertaining to the use of alcohol, tobacco, and illicit drugs. The intervention did not show impact on teacher outcomes: stress, burnout, and quality of life. The effect size ranges from -0.61 - 0.31.
KiVa Antibullying Program Kärnä et al. (2013)	Antibullying programme based on social-cognitive theory (Bandura, 1989) incorporating both universal and targeted interventions. The program consists of interactive lessons whereby students are taught about bullying and how to prevent it, as well as focusing on social skills more generally and how to be responsible for their own behaviours.	74 primary and 73 secondary schools (age 7-15 years) *n*= 8,237 Finland	Quasi-experimental + RCT	The study reported effects in different waves on bullying, victimisation and by stander effects, which ranges from -0.39-0.80.	The intervention was found to reduce reported bullying/victimisation and peer-reported reinforcing of bullying. The positive effects were stronger within the primary schools than the secondary

					schools. The intervention effects also varied by gender depending on the classroom. In Grades 8-9, Wave 3 revealed significant effects on peer reports, notably for boys' reinforcing (*d*= 0.19), assisting (*d*= 0.18), and bullying (*d*= 0.11), along with Grade 8 victimization (*d*= 0.10) and most other effect sizes were small or approached zero.
Olweus Prevention Programme Against Bullying Olweus (2005)	Aimed primarily to reduce existing bullying problems among students at school, prevent the development of new bullying problems, and more generally, achieve better peer relations at school. These goals are met through a restructuring of the child's social environment at school, which is intended to reduce both opportunities and rewards for engaging in bullying behaviour and to build a sense of community among students and adults within the school environment.	Primary and secondary (age 11-14 years) *n*= approx. 21,000 Norway	Quasi-experi-mental	No effect size reported. Only percentage differences available.	Results found that at post-test, there were significant reductions in self-reported bullying/victimisation, and in anti-social behaviour (such as truancy). The intervention was found to improve the school climate, with improvements pertaining to: social relationships, attitudes towards school, student discipline, an student school life satisfaction.
Positive Action Programme	Intervention involves Teaching comprehensive Skills for Successful Learning and Living (SSLL) comprising	Primary and secondary schools	RCT	No effect size reported.	The intervention was found to improve self-concept and school performance.

Allred (1984) Flay et al. (2001)	training and materials for schools, families, and communities. The programme consists of a PreK-12 classroom curriculum, kits for school preparation and teacher training, school-wide climate development, a counsellor's kit, and parent and community involvement manuals. The programme makes use of research-supported strategies and methods of education and behaviour change, such as active learning, positive classroom management, social–emotional– behavioural and learning skills development, role-play, a detailed curriculum with almost daily lessons, school-wide reinforcement of positive behaviours, intrinsic motivation, and family and community involvement.	*n*= 2,122 USA			The intervention was found to reduce problem behaviours/need for disciplinary action.
The Child Development Project Solomon et al. (2000)	The project centres around the classroom component, the school component, and the family component. Within the classroom, the program targets developmental discipline, cooperative learning, and incorporation of a literature-based language arts curriculum. The school component involves strengthening the school community. The family component involves parent-teacher partnership to support family development and build trust with the school.	Kindergarten-4th grade *n*= approx. 13,000 USA	Longitudinal study with comparison school groups	The effect sizes range from 0.41 to 1.10.	The intervention was found to have mixed effects depending on the school context, but patterns of improvement were found in 28 of the measured variables. This includes but is not limited to: sense of school as a community, enjoyment of school and class, motivation, reading frequency, self-efficacy, autonomy, social attitudes etc.

					The intervention group showed no significant negative changes, and no significant positive effects were found in favour of the control group.
The School Development Project (SDP) Haynes and Comer (1990)	The three main elements of the programme were: (1) the establishment of a school management team involving staff and parents; (2) a mental health team that addressed issues to do with school ethos and the mental health concerns of individual staff and students; and (3) a programme to encourage parents to participate as equal partners in planning and decision making in the school. The intervention also included community-based projects for school children and social activities. The aim was to create a "well-functioning social system" with a positive, sensitive, and caring school climate to facilitate the students' development of a healthy self-concept, and improvements in their behaviour and achievement.	Primary school (4th and 6th graders) *n*= 174 USA	RCT	The difference is significant, but no effect size reported.	The intervention was found to lead to significant improvements in behaviour, intellectual/ school status, physical outcomes, anxiety, popularity, and happiness and satisfaction.
Aban Aya Youth Project Flay et al. (2004)	Intervention in Chicago schools including SEL curriculum components, school-wide climate and parent and community components. The intervention aimed to enhance students' sense of belonging and social support by setting up a taskforce of staff, students, parents,	12 schools (age 10-14) *n*= 573 USA	RCT	While no significant program effects were observed for girls, boys exhibited effect sizes ranging from 0.29 to 0.66.	The intervention was found to significantly reduce: violent behaviour, delinquency, provoking behaviour, drug use, and unsafe sexual practices. These findings were

	and local residents, to examine and amend school policies on substance misuse, behaviour, and ethos; developing links with community organisations and businesses; training teachers to develop more interactive and culturally appropriate teaching methods; and teaching students about social skills.				only found for boys, and significant effects of the intervention were not found with girls.

Elements Towards a More Effective WSA

Whilst a significant amount of research on WSAs focuses on their content (what outcomes are addressed and how), numerous research efforts have also examined what elements of WSAs work together to produce the greatest effect. The following section examines these features in detail in order to understand how a WSA might be applied for best outcomes. By understanding why and how the WSA might be effective, we can also learn how best to implement and utilise WSAs.

FIGURE 5: ELEMENTS OF EFFECTIVE WHOLE SCHOOL APPROACH

School Climate and Ethos

A school's overall climate (often articulated and impacted by the school's ethos) is of primary importance for the success of a WSA. School climate or ethos refers to a set of values, practices and attitudes shared by the whole school community (Hawe et al., 2015). Much of the literature emphasises the development of a strong and nurturing school culture as imperative to implementing effective and sustainable behaviour change and overall pupil wellbeing. As Bonell et al. (2007) suggest, "schools may be able to alter the health behaviours of pupils not only by educational interventions but also by changing the nature of the school as an institution" (p. 616). Several reviews have supported this notion, finding that interventions which address the child's environment beyond the classroom (school, family, and community) are more helpful than those that only focus directly on a child's behaviour (Adi et al., 2007; Browne et al., 2004; Catalano et al., 2002; Diekstra & Gravesteijn, 2008; Durlak & Weissberg, 2007; Greenberg et al., 2001; Warwick et al 2009; Weare & Nind, 2011).

Reviews specifically addressing the topic of school-based interventions also emphasise the importance of involving the entire school community in intervention efforts to support various wellbeing outcomes (Jané-Llopis, 2007; Matos et al., 2012; Pearson et al., 2012). As part of the school climate and ethos, inclusion should be considered, particularly within topics such as race, ability, and sexuality (Ainscow et al., 2006; Booth & Ainscow, 2002; McLeskey et al., 2014; Meyer, 2009; Patton et al., 2006). In the development of wellbeing interventions, it is recommended that schools (re) familiarise themselves with the importance of adopting an inclusive environment, as well as how to bring about such a school climate (Bucholz & Sheffler, 2009; Haug, 2017; Troyna & Williams, 2012).

Research in this area particularly highlights the importance of relationships and social inclusion in promoting school-wide involvement in interventions (Brown & Shay, 2021; Thomas et al., 2016). Field-specific literature on factors that support (or deter) young people's mental health, for instance, make a clear case for incorporating mental health as an integral part of school climate and culture and encouraging pupils to build healthy relationships with peers, teachers, and staff (Warwick et al., 2009; Weare & Nind, 2011; Wells et al., 2003). Similarly, reviews on interventions focusing on SEL skills often emphasise the importance of peer-to-peer and staff-to-student relationships as valuable social contexts for SEL skills to be properly practised and developed (Goldberg et al., 2019; Jones & Bouffard, 2012; Meyers et al., 2015).

The evidence supports WSA interventions that focus on relationship-building and community-building, which can be achieved through improvements to the school ethos and climate. These approaches play a central role in promoting wellbeing and preventing mental disorders as they target factors such as risky behaviour, substance abuse, and absenteeism, whilst promoting self-concept, and academic achievement (Greenberg et al., 2001; Hurry et al., 2021; Warwick et al., 2009; Weare & Nind, 2011). Moreover, a sense of school belonging or "school connectedness", where students feel that they are a valued part of their school community, has been seen to reduce risky behaviour,

increase school engagement, and improve academic performance (Flay, 2000; McNeely et al., 2002). The role of school climate is found to be particularly important for older students and those from lower socio-economic backgrounds (Aldridge & McChesney, 2018; Thapa et al., 2013).

In order to alter school climate, school policies and social relationships are fundamental points of focus (Patton et al., 2006). For any such policy change to be effective, it is also critical that the policy and its goals be made clear to all those at school (Flay, 2000). It is thus vital that WSA interventions aim to create an environment where pupils and staff feel safe, cared for, and part of the community to which they belong.

Family and Community Involvement

Related to, but apart from, school climate is the recognised importance of community and family (mainly parental) involvement in a child's wellbeing. As Flay (2000) inquires, "how can we expect youth to continue to hold new attitudes or persist with new behaviours if the social environment does not provide positive role models and reinforcement for such changes?" (p. 861). The need for supportive parental involvement has been explored in numerous reviews which have highlighted the importance of family in school-based interventions as a way of increasing intervention effectiveness (Adi et al., 2007; Blank et al., 2009; Catalano et al., 2002; Durlak et al., 2007; Greenberg et al., 2001; Waddell et al., 2007; Wells et al., 2003). Particularly, families are able to reinforce specific messaging at home which can help the delivery and immersion of a given intervention (Shucksmith et al., 2007). In some cases, interventions that try to address behavioural change within families and communities are more able to sustain long-term impact among pupils (Durlak & Weissberg, 2007). Proper and consistent engagement and interest on the part of families has been seen to play an important role in anti-bullying programmes, reduction in substance abuse, increased academic achievement, and student motivation to learn (Amundsen & Ravndal, 2010; Flay, 2002). Furthermore, a systematic review on mental health interventions found a positive effect on children's and adolescents' emotional wellbeing and decreased symptoms of mental disorder, with particular effect attributed to interactions with supportive adult figures including parents, community members, professionals, and teachers (García-Carrión et al., 2019). Some scholars have suggested ways to keep families and parents informed and involved in school-based interventions by, for instance, sending out letters and information on intervention concepts learned at school, providing educational workshops to parents, and through parent-teacher meetings (Goldberg et al., 2019).

Beyond parental and immediate family involvement alone, the community component of a WSA has also been highlighted in research particularly for young people requiring additional mental health support (Lister-Sharp et al., 1999; WHO, 1996). The wider community, that which extends beyond the school confines, can play an important role in school-based interventions by reinforcing skills learned at school, enhancing relationships developed in the neighbourhood, providing opportunities for social support and communication, as well as creating links to external resources which may be helpful to students (Flay et al., 2004; Goldberg et al., 2019). Conversely, studies have also demonstrated the potentially detrimental effects of challenging community settings on young people's healthy development. One such study, a systematic review of literature on neighbourhood deprivation and youth mental health and wellbeing notes that, in the majority of studies, growing up in a deprived neighbourhood was associated with negative mental health and wellbeing outcomes in young people across multiple countries, including: USA, UK, Canada, Croatia, Sweden, Australia, New Zealand, Algeria, Brazil, Chile, Israel, Nepal, Romania, Rwanda, South Korea, and Uganda (Visser et al., 2021). Importantly, the study found stronger associations for the neighbourhood social environment than neighbourhood socio-economic status and neighbourhood disorder (Visser et al., 2021), suggesting that the social component of community environments is key. Further, a report by the Centre for Wellbeing at the New Economics Foundation (NEF) highlights how perceived safety can be as important a determinant of children and young people's behaviour as the actual objective risk, with parent's perceptions of danger being key determinants of the extent to which children are given freedom to play and explore outdoors (Steuer et al., 2006, emphasis in the original). Such restriction of social and physical environments for young people to engage in outside of school plays a powerful role in shaping their experiences and behaviours. As much as positive community reinforcement can support young people's general wellbeing, WSAs can't afford to ignore the varying contexts facing each community. As Langford et al. (2016) caution in regard to the HPS framework: "without careful and concerted effort to engage all families, the Family and Communities aspect of the HPS framework may, in fact, increase health inequities as harder-to-reach groups miss out" (p. 468). Such findings suggests that a more nuanced understanding of the ways in which families, community members, organizations, policies, and physical environments can affect young people's wellbeing must be developed in order to better inform how WSAs can engage the community. Ultimately then, contextualising an intervention within the wider community in which a given school exists is vital in the development and implementation of WSA interventions.

Finally, it is crucial to emphasise that for the long-term success of WSAs, national educational stakeholders

must demonstrate full investment in an intervention by fostering a sense of ownership and commitment to the proposed WSAs (Barry et al., 2017; Flay et al., 2004). These stakeholders play an important role in WSA interventions a) by determining what is worth teaching and learning, b) by supporting WSA policies and, c) by providing sufficient resources for successful intervention implementation (Goldberg et al., 2019). In this regard, Leger et al. (2022) argue that important intervention characteristics for WSAs to work effectively include both stakeholder funding as well as a strong sense of leadership and encouragement from government bodies and agencies (such as, for HPS initiatives, the WHO or regional bodies such as Schools for Health in Europe). Overall, for WSAs to work effectively and sustainably, it is important that the broader school community is involved and committed to positive change (Wells et al., 2003). All members of the school community at the various stakeholder levels need to see themselves as contributors to pupils' wellbeing and need to be committed to the WSA intervention in order for it to be implemented effectively and produce favourable outcomes (Hurry et al., 2021).

Participatory Involvement

Many reviews on the topic of WSAs emphasise the need for active participation among all levels of school stakeholders (students, teachers, staff, etc...) in the process of intervention design and implementation buy-in. Such reviews and studies encourage taking a child-centred approach, involving pupils ('pupil voice') by eliciting their thoughts and incorporating their suggestions and feedback before implementing WSA interventions (Jané-Llopis, 2007; Matos et al., 2012; Pearson et al., 2012; Warwick et al., 2009). The role of pupil voice in intervention work is particularly important given the evidence that young people tend to feel that health promotion interventions fail to take their feelings and opinions into account (Harden et al., 2001).

The active participation of teachers and staff in the early design and subsequent implementation of the intervention is also a critical component (and strength) of WSAs. For instance, Warren and colleagues' (2019) study on the INCLUSIVE programme (see interventions table above) found that "action groups" (comprised of students and staff and supported by external facilitators) were an important addition to the effective coordination of these kinds of multi-component interventions. The authors note that this approach of using dedicated action groups resulted in increased participation and engagement, while also enabling effective local adaptation.

Teacher involvement at the design level is also likely to increase buy-in and teacher support at the time of implementation. Research on the UK universal SEAL program demonstrated that since universal and whole-school interventions are more likely to involve teachers at the outset, these may be more successfully implemented in the longer-term (Hurry et al., 2021). Moreover, when teachers view themselves as active drivers of young people's wellbeing, they are more likely to engage in interventions and building solutions (as opposed to deferring responsibility onto families or other agents; Hurry et al., 2021). Therefore, when WSA interventions focus on building the capacity of teachers so that they are able to deliver the interventions (rather than being delivered by external experts), greater behavioural and wellbeing outcomes for students can be achieved (Dix et al., 2020; Weare & Nind, 2011). This is why it is important to implement effective professional development for teachers, thus improving their ability to successfully carry out the tasks an intervention requires of them (Wyn et al., 2000). At the same time, it's important to take into account the balance between the current workload and the requirement for new professional training (Adi et al., 2007). The active involvement of senior teachers and school leaders has also been emphasised as playing a pivotal role in effective intervention implementation by enhancing intervention engagement, bringing about effective ethos change, and impacting the morale and wellbeing of staff (Morris et al., 2020; Warren et al., 2019).

Ultimately, considering the voice of students and staff, has been found to help with the design, selection, and implementation of interventions, which can then be adjusted to suit the needs of a particular school or cultural context (Bonell et al., 2007; Hurry et al., 2021). Overall, it is important that a sense of shared ownership, collaboration, and empowerment of the entire school community is felt (Inchley et al., 2007). WSAs by nature foster participatory involvement in the actioning of the intervention, and as such, seem to be an effective pathway towards implementing sustainable change within the school.

Intervention Duration

Many reviews on WSAs highlight the need for interventions to take place over a long period of time, and to be delivered regularly (or to at least have booster/reminder sessions after the main intervention takes place) so as to enable the practice of skills developed throughout the duration of the intervention (Dix et al., 2020; Jané-Llopis, 2007; Matos et al., 2012; Pearson et al., 2012; Weare & Nind, 2011). In particular, reviews such as those focused on promoting mental health and SEL competencies have found that WSAs need to be running continuously for more than a year in order to bring about a real change to school culture (Green et al., 2005; Wells et al., 2003). One valuable method through which intervention effects can be made long-lasting is through the incorporation of the intervention content into the existing curriculum and everyday school-life to lessen the burden placed on teachers and allow for

more naturalistic and every-day practice of learned skills (Adi et al., 2007; Nielsen et al., 2015). Creating long-term, rather than short-term goals as a feature of the intervention, has also been promoted (Browne et al., 2004; Warwick et al., 2009; Wells et al., 2003). It is also important to note that, due to the complex, and multi-component nature of WSA interventions, getting these up and running can take over a year to roll out properly, which is certainly cause for consideration if time or resources are a concern (Cross et al., 2010). Thus, the successful implementation and effectiveness of WSA interventions requires adequate planning, resources, and long-term commitment.

Incorporating Targeted Interventions

Whilst WSAs by nature attempt to engage the entire school population (and beyond) in an intervention, some argue that WSAs that also incorporate a targeted element may better assist those who need more support. Universal interventions are those that are applied to all pupils in a particular grade/year group or across the entire school context providing generalised support, whereas targeted interventions are those that focus on specific, at-risk populations, providing additional and specialised support to those requiring it (Wright, 2015). WSAs tend to be universal but could also incorporate targeted elements. On the whole, research has found those universal interventions involving the school community as a whole which promote wellbeing are effective (Durlak et al., 2011; Nielsen et al., 2015; Warwick et al., 2009; Wells et al., 2003). Nevertheless, some literature still acknowledges that in certain circumstances it is also useful to incorporate targeted interventions within WSAs for best results (e.g., Weare & Nind, 2011).

It is important to recognise that targeted interventions used alone might encourage labelling and/or stigmatisation of those struggling with wellbeing and related areas such as mental health. Targeted interventions often don't consider the context in which the intervention will be implemented, thus run the risk of being inappropriate for the students/staff and their school context (Offord, 2000). Thus, a balance between universal and targeted intervention approaches should be taken (Weare & Nind, 2011). A combined universal and targeted approach, aimed at involving all pupils but with an added layer targeting particularly at-risk populations may, therefore, be a strong solution (Warwick et al., 2009; Wyn et al., 2000). An example of mixing a universal framework with elements of targeted intervention was proposed by Powell et al. (2019) in regard to promoting SEL. This "targeted universalism approach", as opposed to a "one-size fits all" perspective, recognizes that varying levels of support are required for different students to reach the same desired outcomes.

The MindMatters program similarly notes the need for school communities to ensure that the balance between universal and targeted elements of mental health promotion are appropriate for their context. The MindMatters programme demonstrates a WSA framework for enhancing young people's mental health in school settings while also helping to identify targeted interventions which can provide support for any group of young people who have mental health conditions (Wyn et al., 2000). This mentality prompts a recognition that school settings should permit teachers to know their students and adapt instruction in a personalized and culturally responsive way (Mahoney et al., 2021).

Moreover, the integration of targeted interventions into a WSA framework is evident in some national-level guidance for schools. For instance, Public Health England's guidance on "Promoting Children and Young People's Mental Health and Wellbeing: A Whole School or College Approach" (2021) includes provisions for offering targeted support and enabling suitable referrals within their outlined model (see figure 4). Thus, when universal and targeted approaches are compatible and integrated, they are more likely to support the unique needs of individual students while also addressing school-level goals (Bear et al., 2015). Finally, vital to the success of a sustainable WSA is that the approach is continuously built upon and developed, and not left stagnant or assumed to bring about change implicitly in the implementation of the WSA wellbeing intervention (Lyon et al., 2019). Instead, there is a need for continuous monitoring and re-assessment of the implementation to highlight successes and address weaknesses.

Policy

Effective WSA interventions should always align with the existing policies and regulations within a specific school's context. A school's dedication to a WSA initiative is greatly reinforced when there are supportive policy structures in place that prioritize student wellbeing. These policies, while varying from one context to another, invariably share a common objective: to enhance the overall wellbeing of students/staffs within the educational system. For example, in the UK, the government's 'Transforming Children and Young People's Mental Health' green paper commits to improve the mental health of children and youth. Similarly, the Australian government's 'Be You' initiative is a national program designed to bolster the mental health and wellbeing of students in schools. While some countries like Finland may not have a single designated 'wellbeing policy,' their holistic and student-centred educational approach inherently contributes to the overall wellbeing of students (also see the WSA in policy section).

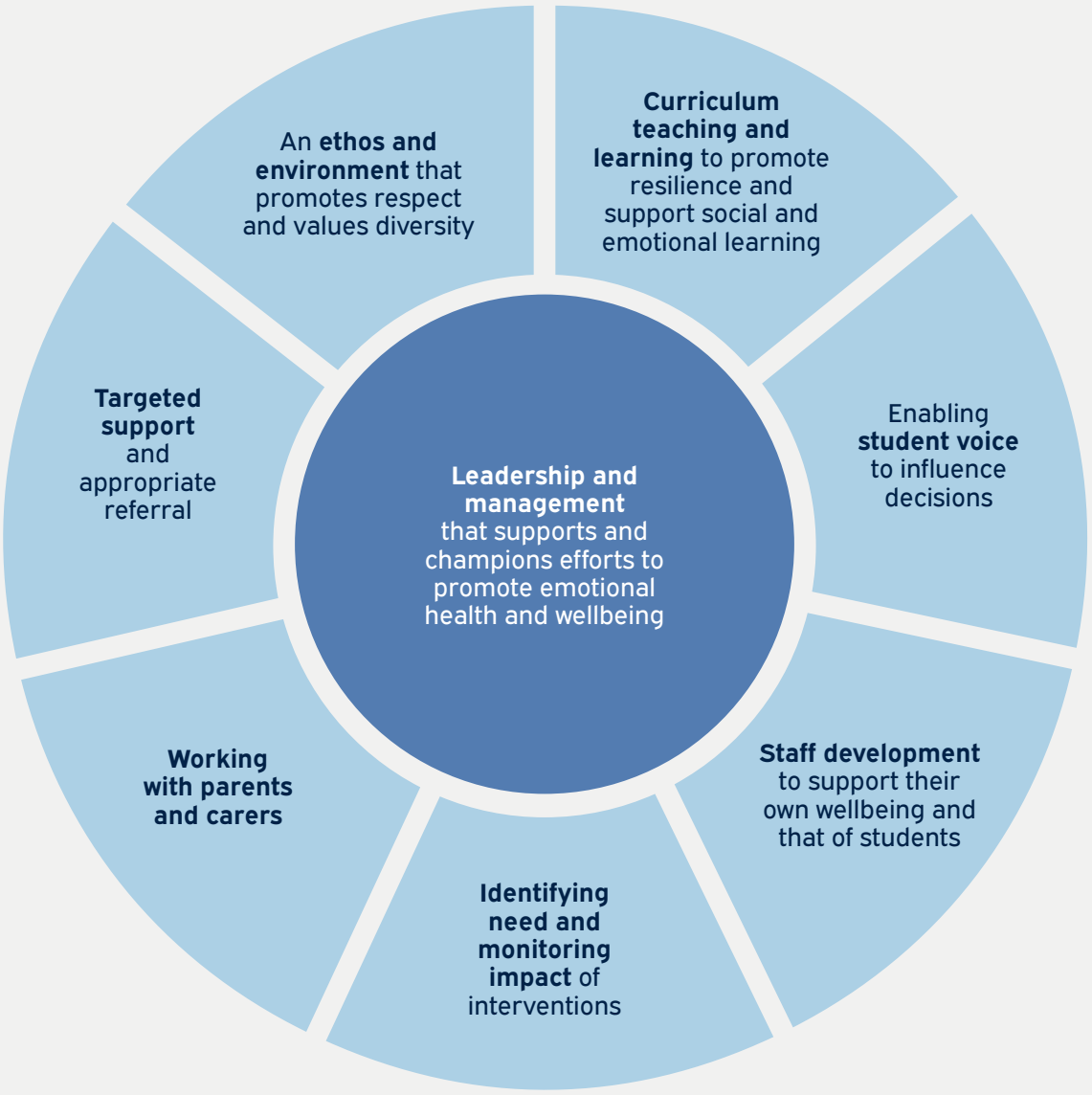
One noteworthy example is the guidance provided by Public Health England (2021), in collaboration

with the Department for Education, which sets forth eight essential principles for fostering a whole-school approach to mental health and wellbeing. These principles strongly resonate with the findings discussed in our research. Presented as a wheel diagram, the core principle of 'leadership and management that supports and champions efforts to promote emotional health and wellbeing' is at the centre, surrounded by seven complementary principles arranged in a clockwise manner:

- Curriculum teaching and learning to foster resilience and support social and emotional learning.
- Empowering student voice to influence decision-making processes.
- Enhancing staff development to support their own wellbeing and that of the students.
- Identifying needs and monitoring the impact of interventions.
- Collaborating with parents and carers.
- Offering targeted support and facilitating appropriate referrals.
- Cultivating an ethos and environment that promotes respect and values diversity.

These are some practical wellbeing policies and approaches that schools can potentially adopt to create an environment conducive to the overall wellbeing of students and staffs.

FIGURE 6: EIGHT PRINCIPLES TO PROMOTING A WHOLE SCHOOL APPROACH



[From Promoting children and young people's mental health and wellbeing: A whole school or college approach (2021)]

Evidence for Different Populations

Owing to the complexity of WSAs and the wide array of research topics related to wellbeing, evidence regarding different student subpopulations within schools has produced mixed results. We expand on this complexity in further detail below regarding age, gender, and socio-economic status.

Age

Comparing the relative benefits of wellbeing interventions across different age groups and grade levels is complex, owing to the large variation in intervention approaches, content, and other confounding variables inherent in different school contexts. While variability in the results for age groups exists, overall evidence suggests that interventions which start early in the child's development and continue over an extended period (with booster sessions) and become a part of school culture are most effective (Browne et al., 2004; Jané-Llopis, 2007; Matos et al., 2012; Pearson et al., 2012; Smith, 2010; Weare & Nind, 2011).

A strong body of literature points to greater effects of interventions among younger populations. The KiVa WSA bullying programme (Kärnä et al., 2012) was found to effectively reduce bullying and victimisation for grades 1-3 (7-9 years old) but presented more mixed results when implemented in grades 7-9 (13-15 years old). The authors suggest this may have been due to the development of complex emotional intelligence skills as pupils get older, or that bullying can take more indirect rather than explicit forms as pupils mature, which are more difficult for anti-bullying programmes to target. Variations have also been attributed to pre-adolescents' greater sensitivity to negative conditions in their school environment and greater difficulties influencing behaviour through intervention programmes at later stages of adolescence (Haynes & Comer, 1990).

Not all of the literature is uniform in advocating for interventions among younger populations, however. Several studies regarding anti-bullying programs in particular have demonstrated better effects among older age groups. For example, a meta-analysis on anti-bullying programmes by Farrington and Ttofi (2010) found that among children ages 6-14 years of age, WSA intervention effectiveness increased as pupils got older. Similar results were found by Dix et al. (2020) with secondary school programs finding greater impact compared to primary school programs (although fewer secondary programs were available to compare). An overview of HPS approaches by Warwick et al. (2009) also found that programs aiming to reduce bullying and aggressive behaviour in primary school settings produced mixed results. Thus, even WSA interventions targeting bullying and aggressive behavior yielded mixed results in terms of effectiveness across different age groups. While the overall evidence indicates that interventions commencing early in a child's development and extending over an extended period may yield better outcomes, it's crucial to recognize variations in school settings, intervention content, and other factors. These findings underscore the importance for schools to consider tailoring interventions to specific school settings and age groups.

Gender

Similarly, the relationship between WSA outcomes and gender is complex and often involves the interplay of multiple sociodemographic variables. Flay et al. (2004) suggest that male students (at around puberty) benefit more from interventions targeting risky behaviours (such as substance abuse, poor sexual health, and violence) compared to female students. This finding is reinforced by Bonell et al.'s (2019) study on reducing bullying and aggression in secondary school, finding greater effects in boys in terms of reduction in risky behaviours and improving wellbeing scores. It may be that these gender differences are observed given that risky behaviours are less frequent among girls at the outset, resulting in less noticeable changes for girls during interventions targeting risky behaviour. Therefore, expressions of risky behaviour that are more present among girls, such as indirect aggression (i.e., verbal, or manipulative aggression), might go unnoticed (Bjorkqvist et al., 1992; Lagerspetz et al., 1988). Another interesting finding was that stronger effects for the KiVa anti-bullying programme were found for boys, particularly in classrooms with a high percentage of boys (Kärnä et al., 2012). The authors suggest this could be due to particularly problematic bullying issues within classrooms with a large grouping of boys where such behaviours may be more encouraged and virulent.

Another WSA intervention reported by Hawe and colleagues (2015) which focused on changing the school environment and ethos in an older set of pupils, found that with grades 10-12 (15-18 years old) in rural Canada, positive changes were observed among female students in terms of increases in school engagement, decreases in alcohol use, unprotected sex, and poor health. In contrast, no significant changes were found for male students (Hawe et al., 2015). Similarly, a review of the Wessex Healthy Schools Award found that female participants (11–16-year-olds) made greater progress on all health-related outcomes compared to male students (Moon, 1999).

In summary, the effects of WSAs on different genders can vary depending on the focus area of the WSA, with greater effects reported for male pupils regarding overt signs of bullying, and better results among female students regarding health outcomes such as substance abuse and poor sexual health. In addition, as

it is apparent that age and gender often interact and can produce differential effects, thus further research is required in understanding which types of interventions are better suited for which gender, and at what age.

Socio-Economic Status

There is an overall paucity of robust WSA research conducted in low-income settings. For instance, though the HPS framework is a global initiative, Langford et al. (2016) noted that of the 67 studies included in their review, all but eight were conducted in high-income countries. Of the remaining eight, most were conducted in middle-income countries with just one in a low-income country (Tanzania). Given that a large majority (almost 90%) of the world's adolescents live in low- and middle-income countries (United Nations, 2017); investing in research to improve their health is seen as an urgent priority (Langford et al., 2016). Within national settings (primarily in Europe, the US, and Australia), some work has been done to tease out the potential differences between intervention effects among populations with lower versus higher socio-economic status (SES). One review on WSA SEL programmes by Wigelsworth et al.'s (2020), for example, found there to be a negligible difference in effect between lower-SES students and higher-SES students. In contrast, Dix et al.'s (2020) review found that students from disadvantaged backgrounds benefitted most from universal WSA programs in combination with additional support from targeted programs. Nielsen et al. (2015) also found that the largest effect on SEL in universal WSAs was seen among populations with lower SES. Similar outcomes were found by Bavarian et al. (2013) in their study on SEL and character development programmes, finding positive results in terms of behavioural outcomes and academic achievement for those in less advantaged economic settings. Such findings are encouraging in the ability of WSAs to help address the needs of less advantaged populations, thereby decreasing disparity, though further research is needed to bolster such findings especially in low-income countries, and to explore how WSA might be effective in economically diverse contexts.

Barriers to WSA Implementation

Given the complexity and multi-layered nature of WSAs, effectively delivering such programs means forging through a variety of challenges in terms of intervention design implementation, and measurement. This section reviews some of the main barriers to implementing WSAs that have been frequently addressed in the literature, including lack of sufficient resources (time and money), participant (dis)engagement (including lack of training and support for teachers), and leadership challenges (including lack of clarity due to mixed or confusing guidelines).

Resources: Time and Money

One of the primary barriers to WSA implementation is the lack of resources, both in terms of time and money. Planning and carrying out a large-scale intervention across the school, family, and community contexts, can be costly and require an extended period of time and effort from all individuals involved, which can be difficult to achieve (Hurry et al., 2021; Spoth et al., 2013). For WSA interventions to be implemented effectively, they require long-term commitment from members of the school community, many of whom may already shoulder heavy workloads, a challenge which must therefore be anticipated and addressed before initiating any WSA intervention (Bond et al., 2004). One way to address this could be to identify a school health lead, coordinator, or champion whose assignment is to attend only to school health priorities without being distracted by competing priorities (Hunt et al., 2015). Hunt and colleagues (2015) also suggest that this designated "lead" receive the support of key administrative staff (such as the assistant superintendent or principal) to act as advocates for student health by publicly identifying student health outcomes as district or school priorities. Though resources toward school-level wellbeing and mental health have increased along with awareness and concern over the state of ill-health in young people, health-related funding in schools tends to still be a challenge. To address this challenge, health-related funding needs to be sought at various levels (be it local, municipal, district, state, federal, individual, etc.) as a routine part of each annual educational funding process (Hunt et al., 2015).

Participant (Dis)Engagement

The active involvement of all members of the school community and beyond (including especially teachers and staff, as well as families and the local community) as a crucial factor for the success of WSA interventions has been well-established (see the previous section of elements towards a more effective WSA). In reality, however, achieving full participant involvement and engagement can also present challenges and act as a barrier to WSA implementation. Several studies note that one of the core limitations to gathering evidence on intervention success for WSAs (such as the SEAL programme focused on SEL skills in the UK) pertained to the lack of staff engagement, low motivation for involvement in the intervention, and insufficient staff training (Lendrum et al., 2013; Wigelsworth et al., 2012). Given the importance of teachers and staff in successfully carrying out WSA interventions, ongoing training and support for teachers and staff is crucial (Hurry et al., 2021). Goldberg et al.'s (2019) meta-analysis further emphasises the importance of having a formalised group or committee at school to, for instance, manage the implementation of interventions; hold regular meetings to ascertain whether the intervention

is being effectively implemented; continuously monitor intervention progress; and incorporate ways to ensure whole school engagement. Where implementation fidelity is high (including high participant engagement throughout) findings have been shown to be more impactful. For instance, Durlak et al.'s (2011) meta-analysis reported that those SEL interventions with high implementation fidelity found larger effect sizes for SEL skills, behaviour, and academic outcomes.

Challenges engaging families and the local community have also been cited as a common barrier to successful WSA implementation. One review on schools utilising the HPS framework by Langford et al. (2016) found disappointingly low engagement levels among families across studies. The authors note importantly, however, that this lack of engagement may have been due to "minimal" and "tokenistic" methods of outreach, which tended to include the use of newsletters, one-off meetings, and homework assignments but fall short of meaningful efforts to incorporate families further. The study also found that only a few interventions tried to engage the local community through activities such as media campaigns, lobbying councils, or neighbourhood action teams. Langford and colleagues concluded that most of these engagement efforts seem unlikely to lead to any pronounced and long-term impact, which is concerning given the crucial role family and the local community can play in positive pupil outcomes (Hunt et al., 2015). In summary, the engagement of all stakeholders, including teachers, families, and the community, within the WSA is a critical aspect of its successful implementation and outcomes; this also encourages schools to explore alternative methods for engaging all members in achieving the most favourable effects.

Leadership and Guidance: Balancing Flexibility with Clarity

The role of clear and effective leadership, planning, foresight, and guidance are also important elements of (and can pose challenges to) effective WSA interventions (Goldberg et al., 2019; Hurry et al., 2021; Spoth et al., 2013). Leadership styles and the delivery of guidelines have followed varying models, with researchers advising that prescriptive guidelines for implementation (as are common in the USA) should be balanced with more flexible, bottom-up and democratic approaches (often seen in European and Australian schooling systems; Weare & Nind, 2011). It has been argued that WSAs must necessarily be flexible to adapt to developmental differences that may affect wellbeing levels and other behavioural outcomes, particularly during transitionary periods such as adolescence (Dix et al., 2020; Flay et al., 2004). Leaders must also ensure that changes to a school environment be phased in slowly, and that outcomes be continuously measured by acquiring data relevant to the school and local community, helping to make interventions contextually responsive, robust, and relevant (Bond et al., 2004; Warwick at al., 2009; Weare & Nind, 2011). One flexible WSA, the Aban Aya Youth Project (Flay et al., 2004) centred its intervention on the values of self-determination, responsibility, and unity, utilising contextual teaching methods, such as storytelling. The authors highlight the need for adapting interventions so that target populations can resonate with it, to allow intervention benefits to be properly understood and internalised.

Whilst this bottom-up, democratic approach appears favourable, it should also be borne in mind that one of the main reasons given for the lack of strong effect found in many WSA interventions is the lack of clarity, fidelity, and consistency in their implementation, which may dilute their impact and make outcomes and real-world applicability vague or negligible (Durlak et al., 2011; Wilson & Lipsey, 2007). It is best for WSA interventions to have explicit guidelines principally about what the goals, priorities, and measurements, are of the intervention, while still maintaining the benefits offered by a more democratic and flexible intervention design. A climate of trust and support, and a reflexive approach, which allows interventions to be altered according to the needs of different school contexts, but with clear instructions and guidance for future implementation, is crucial to the success of a WSA intervention (Bonell et al., 2007; Goldberg et al., 2019; Humphrey et al., 2013; Lendrum et al., 2013; Weare & Nind, 2011).

Limitations of WSAs and Their Studies

One of the main limitations of WSAs regards the complexity of implementing multi-component interventions (Goldberg et al., 2019). As discussed above (in "Barriers to Implementation"), WSAs require extensive planning, resources, and commitment on the part of numerous individuals, making WSA implementation very challenging. This is also reflected in the mixed evidence base for WSAs. While many reviews have found favourable results for WSA interventions, some findings are difficult to generalise or show smaller effects than might be desired. For instance, a systematic review of clustered RCTs of school interventions aiming to improve the health of young people (aged 4–18) found that very few focused on mental health, and those that did were not effective (Langford et al., 2014). While such results might lead some to think WSA interventions are simply ineffective, the truth of the matter tends to be more complex. As Weare and Nind (2011) highlighted in their meta-analysis, despite statistical descriptions of 'small to moderate' effects, mental health interventions are practically important and impactful, making a strong case for continued and expanded efforts in mental health promotion and problem prevention in schools.

A major issue with acquiring high-quality evidence for WSAs is that because of their far-reaching and extensive

nature, they are often difficult to quantifiably measure or to garner sufficient statical power. Because of the complex nature of the necessary statistical analyses, the evidence from WSA studies is often deemed too weak to feature in systemic reviews or meta-analyses (Hurry et al., 2021; Weare & Nind, 2011). Such methodological limitations include: a) that evidence is often inconsistent and varies from one study to another; b) studies tend to include small numbers and lack power; c) there is often a lack of a comparable control group and study randomisation efforts; d) the short duration of interventions with lack of proper follow-up; and e) insufficient reporting of outcomes or methodologies used in the intervention so as to enable replication fidelity (Hurry et al., 2021; Weare & Nind, 2011). Owing to lack of statistical power, WSA interventions are often excluded from academic review papers and therefore may also be excluded from recommendations of evidence-based interventions (Dix et al., 2020; Weare & Nind, 2011; Wells et al., 2003), despite the valuable contribution WSAs could make to address real-world changes and improve outcomes among pupils, teachers, school, and communities.

WSA research is also needed regarding how multi-component interventions can be effective, and to understand the relative influence of each of these components or contexts (Wigelsworth et al., 2020). Research highlights the need to go beyond just looking at the overall outcome of an intervention and instead use more advanced statistical methods to examine whether certain subgroups within the intervention population experienced significant benefits. For instance, in a study on The Gatehouse Project (which utilised the HPS framework), while little effect was found for reductions in substance use in adolescence, a greater effect was seen for a certain subpopulation, namely non-smokers at baseline (Bond et al., 2007). Though this subpopulation is not the target population, it is interesting to note differential effects of the intervention on different student populations. These authors also emphasise that it may be important to measure the effect of interventions over time so as not to miss important outcomes which may reveal themselves in the longer term, after sufficient practice and use of the intervention (Patton et al., 2006).

Another important factor to consider regarding the research on WSAs is their target population and area of research focus. Numerous reviews and meta-analyses have highlighted the need for more research to be done on adolescents and older pupils, as well as on the cost-effectiveness of interventions, including how WSA interventions can be implemented with as few resources as possible, to make them more realistic and practical (Langford et al., 2016; Nielsen et al., 2015; Weare & Nind, 2011). Overall, the field of WSA research is still in its infancy and requires further inquiry to determine what makes WSAs most effective for particular age groups, genders, and contexts, while not exhausting a school's or education system's finite resources.

Understandably, practitioners might be intimidated by the scale of a WSA and may have concerns about intervention implementation and analysis. To ensure practicality, it's essential to realistically consider the most suitable research design for a WSA. For instance, attempting a RCT for a WSA within a school setting might be impractical due to the inherent complexity of each school environment (Denman et al., 2002). Moreover, the school may not have access to individuals with a strong academic background in the scientific process, making it unrealistic to expect them to conduct rigorous research independently. Additionally, conducting an RCT within a single school might not be viable, as some schools might lack a sufficiently large population for robust analysis. This should not deter schools from conducting research and tailoring the intervention to suit their specific needs. Instead of being feeling deterred by such a project, schools should be commended on their desire to conduct such research. It is vital to recognise the importance of schools conducting their own research, and their commitment to improving their school outcomes. If a research project initially appears daunting, perhaps adopt a collaborative approach to research design, involving external research experts or other local schools.

In addition, pigeonholing such complex interventions and approaches into narrowly defined outcomes may lead to some effects being missed, particularly those which lead to abstract or structural changes, which are inherently more difficult to measure (Leger at al., 2022). For instance, a study by Acosta et al. (2019) investigating Restorative Practice Interventions designed to reduce cyberbullying in middle-school pupils did not demonstrate significant measurable changes to cyberbullying overall, yet participants reported important changes regarding outcomes such as relationship connectedness, enhanced school climate, enhanced social skills and reduced cyberbullying victimisation. It might thus be more appropriate to use alternative means to measure the impact of WSA interventions, such as qualitative measures or evaluation approaches which try to understand and explain interventions and their fidelity, while taking into account the social and cultural context in which they are embedded (Bond et al., 2004; Dix et al., 2020; Green et al., 2005; Lee et al., 2005).

In line with these questions, a core challenge in the application and study of WSAs is that of measurement. One key limitation of WSA implementation and evaluation is that measurement in the field is fragmented and lacks cohesion. One suggestion for future WSA research is for more studies to use similar outcome measures across WSA studies, so that interventions can be meaningfully compared (Hurry et al., 2021, Weare & Nind, 2011). In the next and final section of this report, we explore some of the most used school level measures in WSA intervention studies.

Measurement

Due to the multi-population nature of WSAs, often most (if not all) of a school community's population is involved in measuring outcomes. WSA interventions in research can take the form of RCTs (Bonell et al., 2019; Cross et al., 2011; Dray et al., 2017; Flay et al., 2004; Kärnä et al., 2012; Olweus, 1991; Patton et al., 2006; Warren et al., 2019); quasi-experimental trials (Gol-Guven, 2016; Haynes & Comer, 1990; Moon et al., 1999; Slee et al., 2009; Stephenson, 1978); or pre- and post-testing (Hawe et al., 2015; Lester et al., 2020; Morris et al., 2019; Nielsen et al., 2015; Wyn et al., 2000). To reduce potential error associated with self-reporting (especially among younger children), many studies make use of secondary or multiple measurement sources, such as observation from teachers, other qualified professionals, or (though less commonly) family members. Objective measures have also been used, such as: school attendance, mental health service referrals, and academic test scores.

It's clear that the current body of WSA literature does not have a uniform battery of measurements (also see Table A1 in the Appendix). This is perhaps to be expected, as we have emphasised the need for interventions and measurements to be responsive and reflective to a school's unique ecosystem. Also clear from the table A1 is the lack of measurement instruments designed specifically to be deployed in WSAs, which is partially to be expected given their complex and bespoke nature. Consequently, we are unable to recommend specific measurements that schools should aim to include in the evaluation of a WSA intervention. We can, however, point schools to different measurement approaches that might be effectively applied to WSA intervention evaluation.

Here we outline measures used In WSA studies, identifying these in relation to the following subthemes: student wellbeing, student level, school level, and teacher/staff wellbeing (see table A1). In two other intervention reports in this series, "Teacher Wellbeing Interventions" and "Physical Activity Interventions" (Taylor et al., 2024; Taylor et al., 2024), we have included measures frequently employed in the assessment of student and teacher wellbeing. Thus, in this WSA report, we will dedicate a separate table (see below) to explore the school-level measures in greater detail.

TABLE 2: SCHOOL LEVEL MEASURES

Measure	Content	Age	Reliability and Validity	Language Validation	Availability
Student Perceptions of School Scale Hawe et al. (2015)	28 item scale, with respondents asked to answer yes/no to each item, other than item 21 (all/ most/half/one or two/none). Items were taken from the following scales: Beyondblue Schools Research Initiative, Gatehouse Project Adolescent Health Survey, Manitoba School Improvement Survey, Psychological Sense of School Membership, Quality of School Life, and Patterns of Adaptive Learning Survey.	Students (9-18 years)	Reliability considered to be high (Cronbach's alpha value = 0.93).	English	The questionnaire can be downloaded freely.
School Commitment Questionnaire/School Engagement Scale Patton et al. (2006) Bond et al. (2004)	23 item scale, with subscales, measuring: school attachment, student–teacher communication, perceived opportunities for participation, disincentives, and rewards for participation.	Students (13-14 years)	Not enough published information to determine reliability.	Not enough published information to determine an answer.	Unavailable
Child Development Project Questionnaire Solomon et al. (2000)	Student questionnaire consisted of a collection of different scales, totalling 219 items. There are 5 domains of scales within this questionnaire:	Students (8-12 years)	No validity or reliability values for the overall questionnaire, though reliability values for the student questionnaire range from Cronbach's alpha value 0.58 - 0.92.	English	Unavailable

	· school environment · academic attitudes and motives · personal attitudes, motives and feelings · social attitudes, motives and behaviour · cognitive/academic performance				
	Index of implementation made of teacher questionnaire scales (though only 4 scales pertaining to implementation efficacy were analysed).	Teachers	No validity or reliability values for the overall questionnaire, though reliability values for the teacher questionnaire scales range from Cronbach's alpha value 0.61 – 0.83.		
	Observational measures of classroom behaviour, by rating the frequency of the occurrence of a given behaviour or activity.	Unclear who observer is, though it is noted that each observer received training.	Observational measures had 74.61% observer agreement.		
Wessex Healthy Schools Award Scheme Moon (1999)	Measurements included an audit, a student health questionnaire, semi-structured interviews, school observation, lesson observation, curriculum overview, policy review, and focus groups.	Students (11-16 years) Key staff in schools	Values not available.	English	Unavailable

	Audit: External auditors assessed health of the school environment through 9 areas of assessment. (9 items, range 0-100) Pupil Questionnaire: Exact items not available, but used multiple choice and Likert scales to measure the same 9 areas of assessment as above (curriculum; wider curriculum; smoke-free environment; healthy food choices; physical activities; take responsibility for self; healthy workplace for staff; stimulating, clean, safe tidy environment; equal opportunities and access to health education). Semi-structured interview: 30-minute interview using an interview schedule covering 5 topics, relating to perceptions of healthy schools and evaluation of the intervention.				
School Climate Assessment Instrument (SCAI) Alliance for the Study of School Climate (2004)	Questionnaire with 30-79 items depending on the respondent (student, teacher, parent), with 5-point response scales. There are 8 sub scales within this questionnaire:	Students (from age 7) Teachers/ staff	Reliability considered to be high (Cronbach's alpha value = 0.977 – 0.983) (Shindler, 2016)	English Spanish	The questionnaire can be downloaded freely.

	· physical appearance · faculty relations · student interactions · leadership and decision making · discipline and management environment · learning instruction and assessment · attitude and culture · community relations	Parents/ carers (for elementary students only)			
Comprehensive School Climate Inventory (CSCI) National School Climate Center (2002)	Questionnaires delivered to students, teachers/staff, and parents, measuring 5 domains: · safety · teaching and learning · interpersonal relationships · institutional environment · leadership and efficacy	Students (from age 8) Teachers/ staff Parents/ carers	Reliability considered to be high (Cronbach's alpha value = 0.94–0.95) (Olsen et al., 2018)	English Spanish	Unavailable
California School Climate, Health, and Learning Survey (CAL-SCHLS) WestEd (2014)	Questionnaires delivered to students, teachers/staff, and parents. A simple questionnaire is provided for elementary school students, and a larger and more detailed questionnaire to high school students.	Students (from age 10)	Reliability is mixed (Cronbach's alpha value = 0.34– 0.90)	English French Spanish	Unavailable

Meriden School Climate Survey-Student Version (MSCS-SV) Gage et al. (2016)	Student questionnaire consisted of a collection of 47 items. Assess students' perceptions on various aspects such as peer, academic and peer support. As well as feelings of safety in the school environment, respecting differences, and instances of student aggression towards others.	Students (from age 8)	Reliability is considered satisfactory (Cronbach's alpha value = 0.91)	English Spanish	The questionnaire can be downloaded freely.

Measurement Recommendations

Some WSA interventions have focused on student questionnaires as the primary evaluative tool (Bond et al., 2004; Hawe et al., 2015; Patton et al., 2006), whilst other approaches have incorporated students as just one of several informants/respondents. For example, both the Child Development Project (Solomon et al., 2000) and the Wessex Healthy Schools Award Scheme (Moon, 1999) collected measurement data from multiple stakeholders: students, teachers, school staff, and external observers. As a WSA wellbeing intervention aims to be driven by, and have an effect on, the whole school community, we argue that the same holistic approach should be taken when choosing which measures to include in a WSA intervention.

Measures which assess the interaction between different members of the school community are also important to highlight in the exploration of WSA measurement, as this can allow schools to have empirical evidence of the nature and health of the relationships within the school. At the student level, such measurements might consider student–teacher communication, trust in and respect for teachers, and perceived democratic values of the school. At a teacher-level, measurements might consider the level of interpersonal relationship between teacher and students, teacher trust in students, teacher trust in senior leadership team (SLT) and Head/Principal, and belief in the importance and promotion of student autonomy. External observation of such interactions might consider teacher and student respect within a classroom context, or the responsiveness of teachers and students to the needs of each respective party.

The subject matter of the measurements should also be reflexive and appropriate to the school context. For example, measurement of conflict and safety, or risky behaviour environments (such as smoking within school grounds) might be more relevant within certain school contexts but not as pressing in others (e.g., among adolescents rather than younger children). This notion of reflexivity is relevant also for the format of data collection; measurement items must be appropriately chosen for the target population and the variables of interest, these might include self-report questionnaires, observation of classrooms, as well as interviews (i.e., proxy measures and parent/teacher observation might be best utilised for younger children who cannot reliably and consistently report on their own behaviour and experience using instruments like self-report questionnaires). Hence, for optimal practices, careful selection of measurement content, methods, and participants aligned with the specific school context is essential.

Summary

The interventions described in this report demonstrate that WSAs require a comprehensive understanding of the school context, which includes the curriculum and teaching, school culture and ethos, policy, operations, the physical environment, and the network of relationships and partnerships within both the school and the larger community context. This report delves into existing WSA interventions within the literature which address wellbeing and their drivers. The current body of literature on WSA interventions unveils their primary focus on addressing risky behaviour, fostering social-emotional learning, enhancing the physical and mental health of students, and nurturing the wellbeing of teachers and staff.

Furthermore, this report finds that the factors that contribute to the effectiveness of these interventions also manifest as challenges encountered by schools when implementing interventions through a WSA. While the importance of resources, active stakeholder involvement, and clear yet flexible guidelines is advocated for efficient intervention implementation, these elements are often challenging in practice. Some strategies suggested by researchers may offer avenues to address those issues. Embedding intervention content within the existing curriculum and daily school routine emerges as a valuable means to enhance the intervention's long-lasting effects, integrating wellbeing into the everyday practice of school life (Weare & Nind, 2011; WHO, 1996; Adi et al., 2007; Nielsen et al., 2015). Moreover, strategies like sending informative letters, organizing educational workshops, and facilitating parent-teacher meetings have been proposed to effectively engage families and parents (Goldberg et al., 2019). It is recommended that schools look for WSA interventions that provide explicit guidelines outlining intervention goals, priorities, and measurement while retaining the flexible and adaptable intervention design which is needed to adapt the WSA to their unique school ecosystem.

In all, the WSA presents a promising and compelling argument for enhancing wellbeing in schools by creating a supportive, inclusive environment that involves the entire school community. It is crucial to bear in mind that the success of the approach is contingent on effective implementation, commitment from stakeholders, sufficient resources, and a thorough understanding of the diverse needs of the school community.

Schools are privileged with an intimate understanding of their student populations, possessing the expertise required to discern the nuanced factors influencing each student's educational journey (in addition to pupil and staff voice). They are not passive recipients of research findings but active architects of their students' wellbeing journeys. The majority of schools are dedicated to cultivating environments that prioritize the holistic development and wellbeing of their students. They have the capacity to tailor interventions to their unique student body, acknowledging the diverse backgrounds, needs, and aspirations of the individuals under their care. This capacity to adapt and customize interventions based on their first-hand knowledge underscores the pivotal role that schools play in fostering the wellbeing of their students, using insights from evidence-based interventions to inform their school policies and practices.

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For a full list of references used in this report and access to additional supplementary materials, visit wellbeing.hmc.ox.ac.uk/schools.

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Appendix

Appendix: A List of Measurements Used in Wellbeing-Related WSA Studies

Theme	Measure		
Student Wellbeing Measures	**Short Warwick–Edinburgh Mental Wellbeing Scale** (Clarke et al., 2011)	**Depression Self-Rating Scale (DSRS)** (Asarnow & Carlson, 1985)	**Strengths and Difficulties Questionnaire (SDQ)** (Goodman et al., 2000)
	Paediatric Quality of Life Inventory (PedsQL) (Varni et al., 2006)	**Short Mood and Feelings Questionnaire** (Angold et al., 1995)	**The Satisfaction With Life Scale (LIFE)** (Diener et al., 1985)
Other Student Level Measures	**Piers-Harris Self-Concept Scale** (Piers & Harris, 1984)	**The School Engagement Scale** (Bond et al., 2004)	**School Commitment Questionnaire** (Patton et al., 2006)
	Health-Related Pupil Questionnaire (Moon et al., 1999)	**Social Problem-Solving Analysis Measure (SPSAM)** (Elias et al., 1978)	**Students' Health-Related Quality of Life (HRQoL)** (Stevens, 2011)
	Gatehouse Bullying Scale (Bond et al., 2007)	**Edinburgh Study of Youth Transitions and Crime School Misbehaviour Subscale** (Bonell et al., 2015)	**The Modified Aggression Scale Bullying Subscale** (Hamburger et al., 2011)
	Olweus' Bully/Victim Questionnaire	**Bullying-Participant Role Questionnaire**	**Self-Reported Early Delinquency Scale**

	(Olweus, 1996)	(Salmivalli & Voeten, 2004)	(Moffitt & Silva, 1988)
	Youth Risk Behaviour Surveillance (Kolbe et al., 1993)	Self-report items related to health behaviours such as substance use, physical activity, sexual health and bullying (within the last month or week period).	
Teacher/Staff Wellbeing Measures	**The School Organisational Health Questionnaire (SOHQ)** (Hart et al., 2000)	**Staff Whole-School Wellbeing Indicators** (Cefai & Cavioni., 2014)	**The Brief Resilience Scale** (Smith et al., 2008)
	Stress at Work Scale (Cooper & Marshall, 1978)	**Depression Anxiety Stress Scale** (Lovibond & Lovibond, 1995)	
School Level Measures	**Student Perceptions of School Scale** (Hawe et al., 2015)	**School Commitment Questionnaire** (Patton et al., 2006)	**The School Engagement Scale** (Bond et al., 2004)
	Child Development Project Questionnaire (Solomon et al., 2000)	**Wessex Healthy Schools Award Scheme** (Moon, 1999)	**School Climate Assessment Instrument (SCAI)** (Alliance for the Study of School Climate, 2004)

	Comprehensive School Climate Inventory (CSCI) (National School Climate Center, 2002)	**California School Climate, Health, and Learning Survey (CAL-SCHLS)** (WestEd, 2014)	**Meriden School Climate Survey-Student Version (MSCS-SV)** (Gage et al., 2016)