

Health and allied health initiatives in schools

Impacts on academic, wellbeing and attendance outcomes

February 2026



The Australian Education Research Organisation (AERO) is Australia's national education evidence body, working to achieve excellence and equity in educational outcomes for all children and young people.

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Acknowledgement of Country

AERO acknowledges the Traditional Owners and Custodians of the lands, waterways, skies, islands and sea Country across Australia. We pay our deepest respects to First Nations cultures and Elders past and present. We endeavour to continually value and learn from First Nations knowledges and educational practices.

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List of abbreviations

Abbreviation	Full term
CBT	cognitive behaviour therapy
CSM	community school model
DOC	Doc on Campus
EHCP	education, health and care plan
ESE	emotional self-efficacy
GPA	grade point average
ICSEA	Index of Community Socio-educational Advantage
ISS	integrated student supports
MHL	mental health literacy
MTSS	multi-tiered system of supports
NAPLAN	National Assessment Program – Literacy and Numeracy
OECD	Organisation for Economic Co-operation and Development
OMM	Our Mia Mia
PICO	Population Intervention Context and Outcome
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
QED	quasi-experimental design
RCT	randomised controlled trial
SBHC	school-based health centre
SEL	social and emotional learning
SES	socio-economic status
WHIN	Wellbeing and Health In-reach Nurse (WHIN)

Key terms

Term	Definition
Culturally safe environments	Culturally safe environments are psychologically, socially, physically, spiritually and emotionally safe for students, their families and their communities. A culturally safe environment is one where there is no threat to, assault on, challenge or denial of cultural identity.
Health	Health consists of 2 interconnected dimensions: physical and mental wellbeing.
Initiative	Initiative refers to a targeted program with a specific goal, such as improving wellbeing outcomes or increasing access to health care. Initiatives may involve one service (refer to Service) or multiple services.
Low-socio-economic status (SES) contexts	Environments characterised by concentrations of people from low-SES (refer to Socio-economic status [SES]) backgrounds.
Multiple service initiatives	Multiple service initiatives provide coordinated, school-linked services to address out-of-school factors that affect student learning in school.
Multi-tiered system of supports (MTSS) in health and allied health initiatives	MTSS is designed to provide a continuum of support to students as and when needed. Tier 1 supports are universal and provided to all students at a population level – for example, a class, year group or whole school. Tier 2 are targeted supports provided to a section of the population – for example, a small group. Tier 3 are personalised supports provided to individual students.
School-based health and allied health initiative	A school-based health and allied health initiative (refer to Initiative) takes place on school sites. It may be facilitated by schools, education systems and sectors or other organisations.
Service	Service refers to care delivered by health and allied health professionals. Examples are occupational therapy, speech pathology and psychology.
Socio-economic status (SES)	Socio-economic status or SES is widely used and understood across fields to refer to people's access to material and social resources, including income, wealth, health, education and employment.
Students from low-SES backgrounds	Students whose families have limited access to material and social resources.

Summary

Introduction

Achieving equity for all Australian students is a shared goal of governments and school systems (Council of Australian Government [COAG] Education Council, 2019). While effective instruction is key, good physical and mental health provide a foundation for learning (Commissioner for Children and Young People, Western Australia, 2018). Students from low-socioeconomic status (SES) backgrounds experience a disproportionate burden of health challenges compared to their more advantaged peers – a disparity that exists despite their equivalent aptitude and ability. Disparities in health and access to services contribute to low-SES schools reporting lower average academic achievement levels compared to more socio-economically diverse schools (Borman & Dowling, 2010; OECD, 2018; C. Y. Tan et al., 2025). While health access and equity are the remit of the health sector, achieving more equitable educational outcomes requires multiple, coordinated, cross-sector strategies to address the complex and interconnected barriers many students face. Some schools provide opportunities for on-site health and allied health services, demonstrating collaboration between the education and health sectors.

School-based health and allied health initiatives use professionals such as nurses, occupational therapists, speech therapists and psychologists, to enhance student health and wellbeing, ensuring students are ready and able to learn. These specialists contribute to teaching and learning in diverse ways, such as delivering small-group programs and one-to-one therapy, assessing students, supporting teachers, advising parents and referring students to external specialists. Their expertise and value to student learning are distinct from, yet complementary to, the role of teachers. By leveraging these health professionals to reduce health-related barriers to learning, teachers can better focus on effective instruction and planning for all students.

Despite the widespread implementation of numerous health and allied health initiatives in Australian schools, evidence regarding their positive and negative impacts is limited. Specifically, it remains unclear how well these initiatives might also support the reform proposals of excellence and equity, and wellbeing for learning and engagement, outlined in the Better Fairer Schools Agreement (Australian Government Department of Education, 2025).

The Australian Education Research Organisation (AERO) conducted a literature review to examine the role of school-based health and allied health initiatives and their impact on student outcomes. The review provides policymakers with preliminary insights into how health and allied health initiatives in schools may improve academic, wellbeing and attendance outcomes in low-SES contexts. Given the scarcity of Australian literature on this topic, the findings and insights are primarily informed by international studies. While these studies provide an evidence base, applying them in Australia requires careful analysis of feasibility, benefits and risks and then, where necessary, local adaptation to ensure relevance and efficacy, especially in regional and rural contexts.

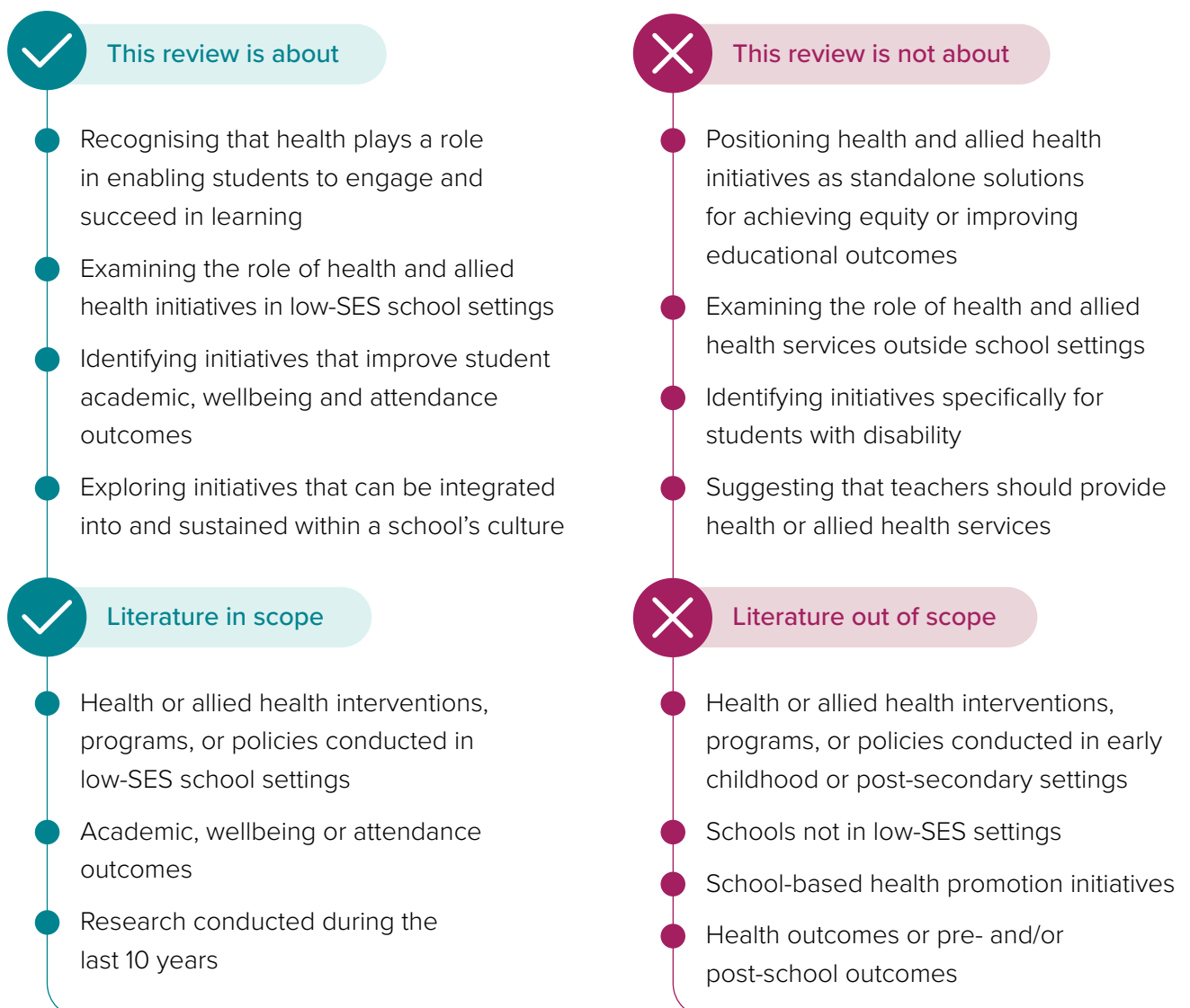
Research approach

This review aims to answer the research question: What school- and system-level health and allied health initiatives can support schools with concentrations of students from low-SES backgrounds to improve outcomes? To address this question, we investigated 3 sub-questions:

1. What school- and system-level health and allied health initiatives aim to support schools with concentrations of students from low-SES backgrounds?
2. What is the impact of these initiatives on students' academic, wellbeing and attendance outcomes?
3. What factors enable or hinder the effective delivery of these initiatives in schools with concentrations of students from low-SES backgrounds?

Each paper was assessed against AERO's [Standards of Evidence](#)¹ to determine a level of confidence in the rigour and relevance of its findings and included only if we could have medium, high or very high confidence. Figure 1 identifies the scope and focus of this review.

Figure 1: Scope and focus of this literature review



¹ AERO's Standards of Evidence establish AERO's view on what constitutes rigorous and relevant evidence. When evidence is rigorous and relevant, it provides confidence that a particular approach is effective in a particular context.

Review findings

We ultimately included 47 papers (39 studies, 8 reviews) and clustered the initiatives in the literature into 4 main groups:

- multiple service initiatives
- mental health initiatives
- nursing initiatives
- other initiatives.

The ‘other initiatives’ group includes initiatives for which only one study was identified. Most papers originated from the United States, with only 5 papers from the Australian context, highlighting a critical gap in published local evidence.

Available evidence indicates that:

- many school-based health and allied health initiatives have the potential to improve academic, wellbeing or attendance outcomes
- some approaches (such as multiple service initiatives) are more strongly evidenced, while others (such as mental health initiatives and nursing initiatives) show mixed results.

Refer to Table 1 for more detailed findings.

Table 1: Summary of review findings

Initiative	Summary of findings*
Multiple service initiatives	
<p>1. School-based health centres (SBHCs)</p> <p>SBHCs are healthcare clinics located within schools that provide students with accessible, convenient and comprehensive health services.</p>	<ul style="list-style-type: none"> • Associated with improved² wellbeing and attendance outcomes • May improve³ academic outcomes • Effectiveness varies depending on factors such as resourcing, service coverage and types of services offered • Students from lower-socio-economic backgrounds may experience greater benefits from school-based health centres compared to their more advantaged peers
<p>2. Community school models (CSMs)</p> <p>CSMs turn schools into hubs that serve both students and the broader community, offering services tailored to the local context.</p>	<ul style="list-style-type: none"> • May improve academic, wellbeing and attendance outcomes • Variable results due to differences in scope and focus

2 Throughout this review, the phrase ‘associated with improved’ is used to describe the aggregated outcome findings drawn from the included papers in which a moderate to strong observed relationship has been found. Refer to [Section A7](#) for a fuller explanation.

3 Throughout this review, the phrase ‘may improve’ is used to describe aggregated outcome findings drawn from the included papers in which a modest or mixed association has been found. Refer to [Section A7](#) for a fuller explanation.

Initiative	Summary of findings*
Mental health initiatives	
<p>1. Counselling, psychology and therapy</p> <p>These initiatives are typically designed to support students at risk of, or already experiencing, specific challenges, like anxiety, depression or trauma.</p>	<ul style="list-style-type: none"> • Associated with improved wellbeing outcomes • May improve academic and attendance outcomes • Are most effective when delivered as small-group or individualised supports by qualified professionals
<p>2. Universal mental health programs</p> <p>These programs typically offer preventative Tier 1 support. They assist students in developing social-emotional skills as well as other interpersonal skills.</p>	<ul style="list-style-type: none"> • May improve wellbeing outcomes • Wellbeing outcomes are less consistently positive when delivered by an unsupported teacher, even if trained in the approach
Nursing initiatives	
<p>Programs or services that promote and protect the students' health and wellbeing.</p>	<ul style="list-style-type: none"> • May improve wellbeing and attendance outcomes • May improve academic outcomes, but evidence is more limited • Show varying effectiveness depending on service coverage, types of services offered and contextual factors
Other initiatives	
<p>These include social work, occupational therapy and dental initiatives.</p>	<ul style="list-style-type: none"> • Insufficient evidence to draw firm conclusions about their impact

* These international findings should not be assumed to directly translate to the Australian context.

Findings should be interpreted with caution, as available evidence does not:

- indicate that initiatives with tentative or null findings are ineffective – merely that rigorous evaluations may not have been funded, conducted or published to date
- allow meaningful comparisons of relative efficacy or cost–benefit (e.g., mental health initiatives as compared to nursing initiatives).

Facilitators of successful implementation

Acknowledging the existence of a larger body of literature discussing implementation factors (Looman et al., 2021), the facilitators of successful implementation of the initiatives identified in this review are:

- **Sustainable resourcing:**
 - Stable funding is required to ensure continued and consistent implementation of initiatives.
 - Adequate workforce supply is important, especially in rural and remote schools where shortages are acute.
- **Stakeholder collaboration:** Strong partnerships between health, education and community sectors are beneficial, with co-designed and culturally safe approaches particularly important for First Nations communities.
- **Operational adaptability:** Schools benefit from starting small, building on existing initiatives, and adapting models to their local context.
- **Program fidelity:** Maintaining core evidence-based elements is key, though some local adaptation may be necessary.

Conclusion

While health and allied health initiatives are widespread in Australian schools, evidence on the impact of these – particularly in schools with concentrations of students from low-SES backgrounds – remains limited. A larger body of rigorous evidence from Australian contexts is needed to draw firm conclusions to inform the plethora of initiatives already in place in most of our schools.

Key gaps requiring additional research in Australian schools include:

- determining which students, schools and communities benefit most from school-based health and allied health initiatives, and under what conditions
- ascertaining the specific characteristics of successful initiatives, especially within low-SES contexts
- identifying initiative types and delivery modes with strong potential to improve student outcomes in low-SES contexts – for example, exploring telehealth as a promising alternative for small or remote schools
- understanding the facilitators and barriers to developing a robust evidence base regarding the role of health and allied health initiatives in an Australian setting.

Health and allied health initiatives are not a panacea, however, when delivered effectively and in a way that supports learning, may play a role in supporting equity in education. Integrated, sustainable and professionally delivered initiatives can help address barriers that disproportionately affect students in schools with concentrations of students from low-SES backgrounds.

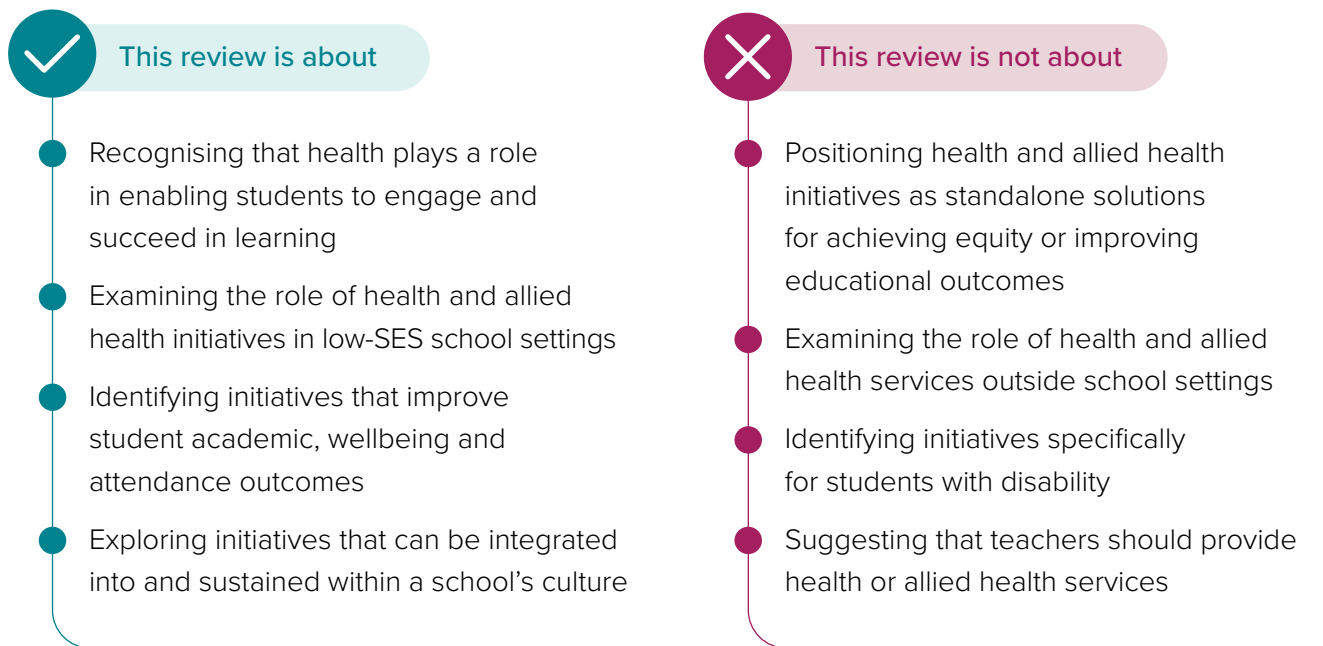
1. Introduction

Achieving educational equity for all Australian students is a shared goal of governments and school systems (COAG Education Council, 2019). Recognising that inequity is multifaceted, and that schools with concentrations of students from low-socio-economic (SES) backgrounds experience disproportionately inequitable outcomes, this review highlights the need for coordinated multidisciplinary approaches to address the challenge of inequity. It focuses on the role of school-based health and allied health initiatives – a common feature of Australian schools. These initiatives are delivered by professionals such as nurses, occupational therapists, speech therapists and psychologists, who work with students and schools to support teaching and learning in diverse ways. This includes assessing individual students, delivering small-group programs, assisting teachers in adapting strategies, advising parents and referring students to external specialists. Their expertise and value to student learning are distinct from, yet complementary to, the role of teachers.

Locating services within the school environment reduces common barriers such as access, transportation, cost and scheduling constraints. It also leverages the school's role as an accessible and culturally safe setting to deliver timely, coordinated health assistance (Rungan et al., 2025). Delivery models vary, including onsite clinics, partnerships and telehealth. Funding and governance arrangements also vary, resulting in differences in how initiatives are planned, implemented and administered. For example, school or system leaders may implement models that balance the needs of the school and its students with the potential unintended impacts of school-based services, such as increased administrative burden on teachers or missed classwork or assessments for students (Centre for Education Statistics and Evaluation, 2023).

This review provides policymakers with preliminary insights into how health and allied health initiatives could support more equitable academic, wellbeing and attendance outcomes in schools with concentrations of students from low-SES backgrounds. Understanding which approaches are most promising will help systems and sectors prioritise those with the greatest potential for impact. The review does not present health and allied health initiatives as a standalone solution for achieving equity, but as a complementary element of multidisciplinary efforts to improve student outcomes.

[Figure 2](#) outlines the focus of this literature review and highlights the assumptions and intentions guiding the work.

Figure 2: Understanding the focus of this review

1.1. The relationship between education and health and why it matters

The relationship between education and health is reciprocal and closely linked (Gan & Gong, 2007; Suhrcke & de Paz Nieves, 2011; United Nations Educational, Scientific and Cultural Organization, 2022). This relationship matters to education systems, as healthy children are better able to learn (Basch, 2011). Without addressing the health barriers many students face, schools may struggle to improve their educational outcomes. While education systems and schools have long recognised the role health professionals play in supporting students' learning, strengthening the links between schools and health services helps to ensure that every student is provided the support they need to effectively engage in education (O'Brien et al., 2023). Through the provision of timely interventions, minor concerns experienced by students may be prevented from developing into major learning barriers (Speech Pathology Australia, 2022; World Federation of Occupational Therapists, 2016). Although school-based health and allied health initiatives are common, policymakers require evidence of their effectiveness, measurable educational benefits and assurance that unintentional consequences do not affect learning.

1.1.1. Challenges for schools with concentrations of students from low-SES backgrounds

Students from low-SES backgrounds are more likely than their more advantaged peers to experience physical and mental health issues (Janus et al., 2024) and to face greater challenges accessing the supports they need (Dennis et al., 2016; Raouafi et al., 2018; Yisma et al., 2021). These health disparities may restrict students from fully participating in learning and can contribute to low-SES schools reporting lower average academic achievement levels compared to more socio-economically diverse schools (Borman & Dowling, 2010; OECD, 2018; C. Y. Tan et al., 2025).

In the Australian context, health disparities are often compounded for students from First Nations communities, culturally and linguistically diverse backgrounds, and those in regional or remote areas (Shepherd et al., 2012). Since children most at risk of poor academic performance often experience poorer health outcomes (McKinley Yoder & Cantrell, 2019; Wikel & Markelz, 2023), health initiatives, in conjunction with quality teaching, play a role in addressing this gap (Basch, 2011).

Despite the need for integrated services, these students and schools often face systemic and logistical challenges to accessing the necessary services to overcome health barriers. These access challenges are the result of several factors, including the:

- lack of health and allied health professionals available to work with students, especially in rural and remote settings (Raouafi et al., 2018; Yisma et al., 2021)
- diverse funding models, which create an inequitable service delivery structure (Jeremy et al., 2024) since eligibility criteria and individualised funding pathways mean that support is not necessarily determined by need alone
- difficulties in navigating a complicated health system, which requires participants to be health literate (Dennis et al., 2016).

School-based health and allied health services may strengthen educational initiatives and offer a pathway to reducing inequities for students (Basch, 2011).



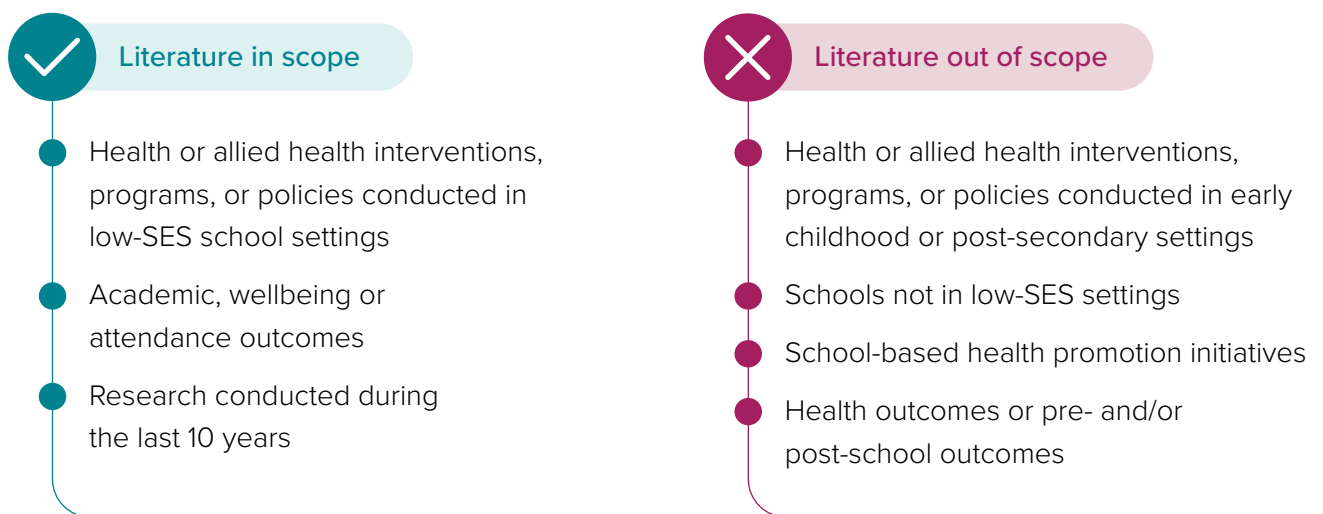
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2. Research approach

2.1. Scope

To guide the literature search, we refined our inclusion criteria to ensure the review captured the research most relevant to answering the research questions. Figure 3 shows the characteristics of literature included and excluded from the scope of this review.

Figure 3: Literature in and out of scope for this review



This review forms part of a broader equity project at the Australian Education Research Organisation (AERO). Alongside this review, which examines initiatives that may improve outcomes in schools with concentrations of students from low-SES backgrounds, a complementary project on how socio-economic status and advantage can be defined and measured is also currently underway.

2.2. Research question

Our overarching research question is: What school- and system-level health and allied health initiatives can support schools with concentrations of students from low-SES backgrounds to improve outcomes?

Supplementary questions are:

1. What school- and system-level health and allied health initiatives aim to support schools with concentrations of students from low-SES backgrounds?
2. What is the impact of these initiatives on students' academic, wellbeing and attendance outcomes?
3. What factors enable or hinder the effective delivery of these initiatives in schools with concentrations of students from low-SES backgrounds?



2.3. Methods


AERO conducted a literature review following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines with pragmatic adjustments to accommodate scope, timeframes and processes. Papers included in the review explored the impact of school-based health and allied health initiatives on student academic, wellbeing and attendance outcomes. Education, nursing and allied health databases were searched using Population Intervention Context and Outcome (PICO) search terms (refer to [Section A1](#) for more detail).

The initial search of education, nursing and allied health databases identified 1,354 papers. After reviewing titles and abstracts to target the most relevant, 123 were identified for closer reading. Full text review of these papers resulted in a final group of 47 (39 studies and 8 reviews) that met all inclusion criteria. Relevant data required to answer the research question were extracted from the papers, while the confidence in the rigour and relevance of the research was assessed using [AERO's Standards of Evidence](#). These standards establish AERO's view on what constitutes rigorous and relevant evidence when making judgements about the effectiveness of a particular policy, practice or initiative. When evidence is rigorous and relevant, it provides confidence that a particular approach is effective in a particular context. A more detailed explanation can be found in Table 2.

The details of all papers included in this review can be found in [Appendix B](#). Papers are organised by type of health or allied health initiative and include publication information, methods and settings, a summary of findings according to academic, wellbeing and attendance outcomes, and the assessed confidence level based on AERO's Standards of Evidence.

Table 2: Medium, High and Very High levels in AERO's Standards of Evidence explained

Confidence level	No. of papers in this review	Features required to achieve confidence level	
		Reviews	Studies
 Very High Research conducted in an Australian or similar context shows the approach causes the effect	7	Meta-analyses drawing only on randomised controlled trials (RCTs) and quasi-experimental designs (QEDs) in Australian or similar contexts that have robust and transparent methods for the search strategy, inclusion/exclusion, data extraction, and analysis	RCTs or QEDs that benchmark against a control group (using matching or other methods, such as a difference-in-difference design) in Australia or similar contexts that are transparent in documenting their research methodology
 High Research shows the approach causes the effect	9	Meta-analyses drawing only on RCTs and QEDs that have robust and transparent methods for the search strategy, inclusion/exclusion, data extraction, and analysis	RCTs or QEDs that benchmark against a control group (using matching or other methods, such as a difference-in-difference design) that are transparent in documenting their research methodology

Confidence level	No. of papers in this review	Features required to achieve confidence level	
		Reviews	Studies
 Medium Research associates the approach with effects (i.e., shows correlation, not causation)	33	Meta-analyses that include observational studies (e.g., prepost studies with no control group) using robust and transparent methods for the search strategy, inclusion/exclusion, data extraction and analysis OR Systematic reviews with robust and transparent methods for the search strategy, inclusion/exclusion, data extraction and analysis	Qualitative or quantitative studies that demonstrate a correlation between the approach and effects using robust and transparent methods

Of the 47 papers reviewed, 36 originated from the United States, 5 from Australia and the remaining 6 from various OECD countries. We note that there is considerable variation in how low-SES contexts are defined and characterised across the different countries represented in the research. Each paper was analysed and salient information synthesised and then organised according to initiative type. For a full description of the methods used for this review, refer to [Appendix A](#).

2.4. Limitations

2.4.1. The parameters of the search criteria

To enable a timely synthesis of evidence aligned with our research question, we restricted inclusion to studies conducted in low-SES contexts. This reduced the pool of studies returned in our search and may have excluded findings that could have been adapted to low-SES contexts.

2.4.2. Research design limitations of some papers

Other limitations of the review relate to methodological concerns regarding the included papers. Several studies used a cross-sectional design, which captured outcomes at a particular point in time but did not track outcomes over time. Furthermore, as several studies did not use matched control groups, it is difficult to isolate the effects of the initiative from other factors. The effectiveness of initiatives is also complicated by issues of sample size and a lack of measurement of fidelity to the prescribed initiative. Without data on whether initiatives were implemented as intended, it is challenging to draw conclusions about their effectiveness.

Further methodological limitations relate to the deliberate restriction of studies to designs that quantify outcomes. This methodological choice, while necessary for the scope, likely excluded research methods primarily employed by cultural groups, such as First Nations peoples.

This exclusion risks sidelining context-specific insights and perspectives. Research that captures these excluded perspectives may provide the deep contextual data needed to inform equitable and effective policy in Australia. To minimise this limitation, Examples 1 to 3 provide findings from studies that capture uniquely Australian contexts, yet did not meet our review inclusion criteria.

2.4.3. Definitions of low-SES varied across papers

While the research focused on studies of schools with concentrations of students from low-SES backgrounds, a key limitation is the absence of a standardised measure for this complex concept. Instead, studies relied on a variety of proxy indicators. Common proxies included indicators of individual or family-level poverty, such as eligibility for free school lunches or participation in Title I school programs,⁴ which are designed to support students from low-income families. Some studies relied on broader demographic proxies like racial or ethnic minority status, as these groups are disproportionately affected by economic inequality. However, this approximation of low-SES is not adopted in Australian research. Reliance on different, and often incomplete, measures means that the literature collectively lacks a precise and uniform definition of low-SES. This complicates the interpretation of results and the ability to draw definitive conclusions.

2.4.4. International perspectives make comparisons and conclusions difficult

The provision of health and allied health supports in schools varies widely across the globe, shaped by the interplay of national legislation, socio-economic conditions and cultural priorities. Each country, informed by its legal frameworks and the structure of its education and healthcare systems, adopts distinct approaches to integrating services into school settings. As a result, the scope, accessibility and funding of school-based supports differ markedly across contexts, creating a diverse landscape of delivery models and complicating comparisons to inform useful approaches. Initiatives from international settings were assessed for their relevance to the Australian context.

2.4.5. Cultural context

This review has relied on traditional quantifiable outcomes of academic achievement, attendance and wellbeing to assist in drawing conclusions about which initiatives might be most impactful. By limiting the analysis to these metrics, the review may inadvertently overlook initiatives that support broader concepts of educational success, thereby presenting an incomplete picture of effective initiatives. For example, cultural resilience and connection to Country are valued outcomes for First Nations peoples. However, these notions of success were not included in the review.

The limited availability of Australian research may restrict how broadly the findings can be applied; therefore, conclusions drawn about initiatives for Australian contexts should be interpreted with caution. Further, findings may overlook the specific challenges of remoteness and the lasting effects of colonisation in some communities, which can create barriers to access and trust in health and allied health services and initiatives. To address potential cultural and contextual misalignment, Australian studies that did not meet inclusion criteria but offered valuable insights into uniquely Australian contexts are presented in separate call-out boxes (refer to Examples 1 to 3). These illustrative examples contextualise the findings for Australian policymakers and with the exception of a scoping review protocol, all meet AERO Standards of Evidence levels of Medium or above.

4 US federal government program that supplements state and local funding for low-achieving children, especially in high-poverty schools (U.S. Department of Education, n.d.)

3. Outcomes

3.1. Academic, wellbeing and attendance outcomes

This review examines the impact of school-based health and allied health initiatives on key student outcomes. The initial intention was to focus exclusively on academic outcomes. However, the limited number of studies in this area and the knowledge that wellbeing and attendance are known mediators of academic outcomes (Allensworth & Balfanz, 2019; Ofei-Ferri et al., 2023) prompted a broadening of scope. Although academic outcomes should be prioritised in education evaluations, focussing solely on these may overlook the role of factors, such as attendance and wellbeing, in contributing to learning and educational success (Noon & Zadkovich, 2021; Rungan et al., 2023). Therefore the review includes studies that report on one or more of the 3 outcomes to capture a more comprehensive picture of impact of initiatives in schools with concentrations of students from low-SES backgrounds. The outcomes appear in various combinations across the literature, reflecting the diverse aims and designs of the studies and the multifaceted nature of school-based interventions.

3.1.1. Academic

Academic outcomes refer to measurable indicators of students' educational performance and achievement. These outcomes comprise a range of metrics used across studies, including grade point averages (GPAs), scores and rates of students meeting proficiency standards on national or standardised assessments, such as National Assessment Program – Literacy and Numeracy (NAPLAN) in Australia, and teacher-assessed proficiency. Rates of graduation, school completion and higher education enrolment were also employed as measures of academic achievement. While the specific measures varied depending on the context and educational system, academic outcomes generally reflect students' overall academic achievement and serve as a key benchmark for evaluating the effectiveness of educational interventions and policies. Most studies in this review used scores in English and maths as outcome measures.

3.1.2. Wellbeing

Wellbeing is a multifaceted concept encompassing physical, mental and social dimensions (Allensworth & Balfanz, 2019). The concept is represented and understood differently across peoples and groups. For example, in Australia, First Nations concepts of health include social and emotional wellbeing, offering a holistic framework that emphasises the interconnectedness of a person's life across domains like self, family, community and ancestors, and acknowledging the social, cultural, political and historical factors as key health determinants (Commonwealth of Australia, 2017; Dudgeon et al., 2025).

Regardless of the exact definition used, there is a growing emphasis on the importance of wellbeing, both as a unique outcome and as a means of improving academic outcomes for students (Ofei-Ferri et al., 2023). Although wellbeing is not an official outcome of school education at the national level, the Alice Springs (Mparntwe) Education Declaration (COAG Education Council, 2019) reports it as fundamental to student success, and most jurisdictions have a wellbeing framework or strategies and policies for including and measuring wellbeing at school.

As there is no single accepted definition of wellbeing, a specific definition was not employed for the review. However, it was conceptualised to include both mental and physical measures. Objective and subjective indicators were used to measure wellbeing across papers reviewed, with most using validated scales.

3.1.3. Attendance

Attendance measures are used as proxies for student engagement and are considered important predictors of academic achievement and long-term educational outcomes (Allensworth & Balfanz, 2019). Attendance refers to students' physical presence in class during official instructional hours. It is commonly quantified through metrics such as attendance rates, absenteeism (both authorised – for example, due to illness – and unauthorised – for example, due to truancy) and chronic absenteeism. Some studies also include related indicators such as school suspensions, which reflect disruptions to regular attendance. Attendance and absenteeism are often used interchangeably, as attendance reflects the proportion of days a student is present, while absenteeism reflects the proportion of days a student is not present.



4. Findings

This section synthesises the literature review findings to present health and allied health initiatives that have the potential to minimise the impact of concentrations of students from low-SES backgrounds on academic, wellbeing and attendance outcomes. Four types of initiative were identified:

- multiple service initiatives
- mental health initiatives
- nursing initiatives
- other initiatives that included occupational therapy, social work and dental initiatives.

In each of the initiative sections (sections [4.2](#), [4.3](#), [4.4](#), [4.5](#)), we include separate call-out boxes to present details about papers that focus on initiatives in Australian schools that did not meet our inclusion criteria. For example, a study that did not specifically focus on initiatives in low-SES schools, or a review that was not published in the last 10 years. Nonetheless, the findings of these papers may have relevance to systems and sectors.

4.1. Confidence in the evidence

Each study and review were assessed against [AERO's Standards of Evidence](#). Only those rated as medium, high or very high were included. The small number of studies for each initiative type, together with the variability of findings, means it is not possible to assign an overall confidence level for each initiative type. In this section, for each initiative type, we instead present the number of papers at each confidence level alongside their findings. Further details are provided in [Appendix B](#).

4.2. Multiple service initiatives

The Report of the Independent Expert Panel's Review to Inform a Better and Fairer Education System (O'Brien et al., 2023) recommended 'full-service school' models as a means of better connecting students to community and health services. 'Full-service school' is one name for multiple service initiatives. Other terms for the same approach are 'integrated student supports' or 'wraparound supports', and 'extended service' or 'community schools'. While terminology and models differ, these approaches share a common goal: to provide coordinated, school-linked services that address the out-of-school factors that affect student learning in school, thereby improving students' academic, physical and mental wellbeing.

Tailored to the unique context of each school, initiatives vary in structure and implementation. By creating partnerships with health, allied health, social welfare, and community organisations, and by integrating support systems within or around the school environment, schools coordinate the delivery of multiple services to meet the holistic needs of students.

Based on the types of services provided, we grouped multiple service initiatives into 2 categories:

1. school-based health centres (SBHCs)
2. community school models (CSMs).

4.2.1. School-based health centres – Overall findings




SBHCs are healthcare clinics located within schools that provide students with accessible, convenient and comprehensive health services. Designed to reduce access barriers, such as transportation challenges and difficulties navigating complex healthcare systems, SBHCs could be valuable in underserved or rural areas. SBHCs focus on prevention and early intervention, and services typically include primary health care, mental health support, dental care, social services and health education. Services are delivered by individual clinicians or multidisciplinary teams of health and allied health professionals, with some SBHCs including social welfare professionals in the team. Most services are offered during school hours, although some centres extend availability beyond the school day. While parental consent is generally required to access services, older adolescents may be eligible for certain confidential services without parental involvement. SBHCs may serve only students or may extend services to families, school staff and the broader community (Kjohlhede et al., 2025; Knopf et al., 2016).

SBHCs are associated with improved academic, wellbeing and attendance outcomes

A trend of positive findings was observed across 9 papers reporting on academic, wellbeing and attendance outcomes. Papers ranged from medium to very high quality according to [AERO's Standards of Evidence](#). The effectiveness of SBHC initiatives varied largely depending on factors such as resourcing, service coverage and the types of services offered. Findings demonstrate that students from lower-socio-economic backgrounds may experience greater benefits from SBHCs compared to their more advantaged peers (Bersamin et al., 2019; Rosado, 2022). One review of 20 studies (Sanchez et al., 2019) concluded that school-based telehealth may facilitate improved health status for students with chronic and acute illnesses. Limited evidence suggested that improved health leads to improved student attendance. Adopting a telehealth approach may be useful to schools in underserved areas where there are professional workforce shortages or where students face barriers in accessing services.

[Table 3](#) presents the findings from the papers in this section. The studies exploring school-based health centres in Australian low-SES contexts are Noon and Zadkovich (2021) and Rungan, Smith-Merry, et al. (2024). For more detail regarding each of the papers relevant to SBHCs, refer to [Table B1](#) in [Appendix B](#).

Table 3: School-based health centre findings by outcome

Outcome	Findings
<p>Academic</p> 	<p>SBHCs may improve academic outcomes.</p> <p>Two medium-quality literature reviews (Knopf et al., 2016; Larson et al., 2017) reported positive results associated with improvements in GPA and increased high school completion. One very high-quality study (Rosado, 2022) reported improvements in English, but not in maths.</p>
<p>Wellbeing</p> 	<p>SBHCs are associated with improved wellbeing outcomes, being more pronounced for physical wellbeing.</p> <p>Improvements in both physical and mental wellbeing are attributed to better access and utilisation of healthcare services in one Australian study (Larson et al., 2017; Rungan, Smith-Merry, et al., 2024).</p> <p>Several papers, including 2 from Australia, reported improvements in physical wellbeing in different areas (Knopf et al., 2016; Noon & Zadkovich, 2021; Rungan, Smith-Merry, et al., 2024; Sanchez et al., 2019). Examples include better management of chronic illnesses, like diabetes and asthma, reduction in emergency room visits, and decreased risk-taking behaviours, including reduced alcohol and drug consumption, and reduced instances of unprotected sex. Other improvements include better functional communication in students with speech and language disorders, and corrected visual defects as a result of vision screening (Noon & Zadkovich, 2021; Sanchez et al., 2019).</p> <p>While improvements in physical wellbeing were clear, improvements in mental health were mixed. School connectedness was shown to improve – particularly for students from low-socio-economic backgrounds (Bersamin et al., 2019; Rungan, Smith-Merry, et al., 2024). However, behavioural outcomes were variable. SBHCs demonstrate some success in reducing mental health care disparities for disadvantaged students (Larson et al., 2017).</p>
<p>Attendance</p> 	<p>SBHCs are associated with improved attendance outcomes, with a decrease in absenteeism and an increase in attendance.</p> <p>Of the 5 papers reporting on attendance, 2 reported null effects, while the remainder reported improvements. Three reviews (Knopf et al., 2016; Larson et al., 2017; Sanchez et al., 2019) found attendance improved by addressing health-related barriers that lead to absenteeism. One very high-quality study in rural communities (Kjohede et al., 2025) found that school districts with SBHCs had significantly fewer absences than those without SBHCs. Yet Rosado's (2022) high-quality study found no link between SBHCs and improved attendance until an SBHC had been operating in a school for at least 7 years.</p>

4.2.2. Community school model – Overall findings


CSMs transform schools into hubs that serve both students and the broader community, offering services tailored to the local context. These schools focus on integrated student supports to address out-of-school challenges that may hinder learning, such as health, family or social issues. A typical community school provides a wide range of services, including health care, mental health counselling, after-school and weekend programs, summer learning opportunities and adult education, often delivered through partnerships with local organisations and agencies. While the core principles of integrated supports, expanded learning opportunities and strong family and community engagement remain consistent, implementation varies widely.

CSMs may improve academic, wellbeing and attendance outcomes




Across the 8 papers referring to this initiative, there was a slight trend of positive results. These findings are drawn from 5 papers of high or very high quality and 3 of medium.⁵ While CSMs provide a framework for connecting students to resources, the specific programs used to implement these models vary, impacting their effectiveness.

Table 4 presents the findings from the papers in this section. No Australian studies exploring community school models met our inclusion criteria. For more detail regarding each of the relevant papers, refer to [Table B2 in Appendix B](#).

Table 4: Community school model findings by outcome

Outcome	Findings
<p>Academic</p> 	<p>CSMs may improve academic outcomes; however, improvements depend on the specific CSM program design and implementation.</p> <p>Of the 7 papers found, 3 reported positive impacts on English and maths (Lawson et al., 2024; O’Dwyer et al., 2016; Olubiyi et al., 2019); one reported improvements in English, but no change in maths (Truwit, 2022); one reported improvements in maths but not English (Jiang et al., 2023), and one (Biag & Castrechini, 2016) reported improvements in English and maths, depending on different program components. Family engagement and extended learning programs were associated with improved academic achievement in maths and English, respectively, while social support initiatives were associated with reduced achievement in English. One paper (Turner, 2018) reported negative effects, noting that CSM schools had reduced scores in reading and maths. Turner notes that the negative effects may have been due to the fact that the study did not track results over time but captured student performance in a single year, and that the comparison between the groups regarding achievement results was conducted at a campus not student level.</p>

⁵ According to [AERO’s Standards of Evidence](#).

Outcome	Findings
<p>Academic (continued)</p> 	<p>Community school model designs and implementation vary, leading to differences in results. The <i>Communities In Schools</i> program, examined by Turner (2018), focuses on providing targeted support to students identified as at-risk, while the <i>City Connects</i> program, studied by Lawson et al. (2024), Jiang et al. (2023) and O'Dwyer et al. (2016), uses a systematic approach to assess and create a support plan for every student. These distinct models may account for the varied findings. Studies by Olubiyi et al. (2019) and Truwit (2022) are valuable because they examine both programs, offering a broader view of community school models. For instance, Truwit found a general trend of program effectiveness becoming most evident after 3 years of implementation.</p>
<p>Wellbeing</p> 	<p>CSMs may improve wellbeing outcomes, based on evidence from 2 papers.</p> <p>One review by Olubiyi et al. (2019) reported that CSMs improve both physical and mental health, while a study by Elsenburg et al. (2023) noted improvements in mental health but no effect on physical wellbeing. The difference in results may be explained by the different programs examined. Elsenburg et al.'s study investigated an integrated approach, which is different to the <i>Communities In Schools</i> and <i>City Connects</i> programs investigated by Olubiyi et al.</p>
<p>Attendance</p> 	<p>CSMs may improve attendance outcomes.</p> <p>Only 4 papers reported attendance outcomes, 2 of which were literature reviews that reported different results. Olubiyi et al. (2019) noted improved attendance, while Truwit (2022) reported reduced suspensions, no change in drop-out rates, and increased absenteeism. Jiang et al. (2023) also reported improved attendance, including reductions in days absent and chronic absenteeism. Biag and Castrechini (2016) noted certain components of CSM programs improved attendance, while others reduced it. Family engagement and extended learning programs showed positive effects; conversely, social support initiatives were linked to a reduction in attendance. Findings highlight the complexity of measuring attendance outcomes and suggest that while CSMs show promise, their effectiveness in combating absenteeism may depend on other factors.</p>

Learnings from multiple service initiative studies in Australia that did not meet our inclusion criteria for this review are provided separately (refer to [Example 1](#)).

Example 1: Australian multiple service initiatives out of scope for this review**Our Mia Mia**

The Our Mia Mia (OMM) Wellbeing Hub is an integrated school-based social and health care hub located on the grounds of a regional Australian public primary school in Nowra, New South Wales. The school, which has an Index of Community Socio-educational Advantage (ICSEA) of 805, serves a population of 435 students, 48% of whom identify as First Nations peoples, and 82% of whom are in the bottom quartile for socio-educational advantage. OMM provides a wide range of health services, including paediatrics, general practice, psychology and counselling, speech pathology, occupational therapy, and dentistry. It also offers access to social services, as well as care coordination with several non-government organisations. Referrals typically come from a teacher or a school's learning support unit; however, families may also contact the hub directly. The hub employs a coordinator who acts as a navigator, conducting a comprehensive assessment and recommending a personalised care pathway to ensure students and their families are connected to the right services. Previous research on the OMM initiative focused on its implementation, rather than measurement of academic or wellbeing outcomes.

OMM embodies co-design, from its establishment as the product of an effective partnership between the local community, education, health and non-government organisations, to the ongoing flexibility of the model, which has allowed OMM to pivot and adapt to meet the changing needs of its community. This collaboration, supported by the local Aboriginal Education Consultative Group, ensures OMM is a culturally safe place for First Nations families, providing localised, community-led solutions that empower the community (Burman et al., 2023; Mendoza Diaz et al., 2021).

Yudi Gunyi School Ngaramadhi Space

The Yudi Gunyi School is a School for Special Purposes located in central Sydney, Australia. According to the MySchool website, Yudi Gunyi has a current enrolment of 34 students, over 50% of whom are First Nations peoples aged 10 to 16 years who need additional support with problematic externalising behaviour and mental health needs. The school has an ICSEA of 882, and 54% of students are in the lowest quartile for socio-educational advantage. Yudi Gunyi School, in partnership with the health sector, has introduced a multidisciplinary care model to support students and families. Delivered through the purpose-built 'Ngaramadhi Space', the model brings together various professionals, including a paediatrician, youth health nurse, counsellors, occupational therapist, speech pathologist, social worker and teachers to collaborate to improve wellbeing and educational outcomes.

Evaluation of the wraparound model in Ngaramadhi Space reported no statistically significant differences in suspension rates or daily life stressor measures, likely due to the limited sample size. However, analysis of the strengths and difficulties questionnaire found conduct and behavioural problems decreased (Cumming & Strnadová, 2020; Rungan et al., 2021, 2023). As these behaviours often prevent students from attending mainstream schools, the results are significant because they suggest progress toward the goal of reintegrating students into the mainstream.

The Ngaramadhi Space became the pilot site of a larger initiative, which evolved into a partnership between the New South Wales health and education sectors using the Kalgal Burnbona framework – a model for applying school-based integrated care across a local area health district in Sydney (Rungan, Liu, et al., 2024). Kalgal Burnbona is an example of community empowerment through collaborative partnerships. The framework provides a structure for multidisciplinary teams to work within, while remaining cognisant of local community history and needs.

Extended service school models

Extended service school models aim to improve educational outcomes for students in low-SES communities through targeted support services and cross-sector collaboration. Tailored to local community needs and emphasising school-based delivery over external referral, extended service schooling can lead to significant positive outcomes. The summation report on the Extended Service School Models project, which examined extended service provision in 24 schools across Australia, noted improved behaviour, social skills and educational attainment for students and enhanced access to services (O'Donoghue & Davies, 2010).

Full-service schools

Contemporary full-service schools have existed in various forms in Australia since the 1990s. Using a collective case study approach, Barnett (2016) examined the development and implementation of 3 such schools in low-SES contexts in Western Australia. The study notes that improving student outcomes requires different stakeholders to address the needs of students and families. The study offers insights and a framework to inform the planning and evaluation of future full-service schools.

Doc on Campus

The Doc on Campus (DOC) initiative (Doley et al., 2008) was a school-based, early intervention initiative that addressed mental health issues among students in a rural community in South Australia. The DOC team included a general practitioner, clinical psychologists, school counsellors and teachers. The initiative's goal was to improve adolescent health and wellbeing by providing school-based health services, which fostered stronger connections between local health services and young people. Schools play a key role in effective early intervention and provide the opportunity for the cost-effective delivery of services without stigma. While the initiative did not focus on academic performance, it noted the value of school-based interventions for addressing academic issues linked to mental health. The initiative was successful in improving students' access to care as well as reducing the number of incidents of severe cases of self-harm.

4.3. Mental health initiatives

School-based mental health initiatives are designed to promote mental wellbeing, provide accessible support and destigmatise seeking help by equipping students with the knowledge and resources to manage their emotional and psychological health effectively. Initiatives vary in design and approach, largely depending on whether the aim is prevention, diagnosis or treatment, or a combination of these. Some mental health supports are organised through a multi-tiered system of supports (MTSS) framework, with support increasing across tiers.

For this literature review, mental health initiatives were grouped into 2 categories:

1. counselling, psychology and therapy
2. universal mental health programs.

4.3.1. Counselling, psychology and therapy – Overall findings

Counselling, psychology and therapy initiatives are typically designed to address issues experienced by students at risk of, or already struggling with, specific challenges, like anxiety, depression, trauma or behavioural problems. These initiatives are generally provided by a qualified school counsellor or psychologist, where the goal is to deliver specialised support at a small group or individual level. Some counselling, psychology and therapy initiatives use the MTSS framework.

Counselling, psychology and therapy initiatives are associated with improved wellbeing outcomes. They may improve academic and attendance outcomes.

These findings reflect 12 studies and 2 reviews, most of which are of medium quality.

Targeted small-group and individualised approaches were most frequently studied and show promise for effectively improving student outcomes. [Table 5](#) presents the findings from the papers in this section. No Australian studies exploring counselling, psychology and therapy initiatives met our inclusion criteria. For more detail regarding each of the relevant papers, refer to [Table B3](#) in [Appendix B](#).

Table 5: Counselling, psychology and therapy findings by outcome




Outcome	Findings
Academic 	<p>Counselling, psychology and therapy initiatives may improve academic outcomes.</p> <p>Three studies had positive results, one a mixed result and 2 null results. The studies varied broadly in aim, target population, approach and outcome measure, making it difficult to claim evidence-based effectiveness in support of one specific type of initiative.</p> <p>Findings of particular note with regard to resourcing initiatives come from 2 papers:</p> <ul style="list-style-type: none"> • The first involves policy and funding reforms aimed at increasing access to school counsellors in high schools (Sparks & Mulhern, 2024). The reforms were associated with improved high school graduation rates and public college enrolments, with larger effects on low-income students and in high-poverty and rural schools. • The second concerns a study examining the effects of a comprehensive school counsellor program in elementary, middle and high schools, which concluded that lower caseloads of counsellors were positively associated with higher maths and English passing rates for Black, Hispanic and multiracial students (Rutledge et al., 2023). <p>Targeted small-group and/or individualised approaches were most frequently explored, with academic outcomes reported in 3 studies, where 2 had positive results. However, these studies were quite niche both in context and student demographics (Green et al., 2016; Metzler, 2019; Taylor et al., 2024).</p>
Wellbeing 	<p>Counselling, psychology and therapy initiatives are associated with improved wellbeing outcomes.</p> <p>Six studies showed positive results, 3 were mixed and 2 had null results.</p> <p>Like academic achievement, most studies used a small-group or individualised approach with positive effects across a range of wellbeing outcomes (Green et al., 2016; Kerstein & Cooper, 2025; Metzler, 2019). However, some found mixed results (Eiraldi et al., 2016; Kelchner et al., 2019; McKay et al., 2025).</p> <p>One study assessing the impact of an MTSS-aligned mental health program, using a full-time school psychologist and several external part-time therapists, showed improvement in students' social skills, commitment to learning and positive values (Bowen, 2023).</p> <p>The study by Sparks and Mulhern (2024) investigating the effect of a policy and funding reform found that increased access to school counsellors was positively associated with reduced delinquency and improved student perception of school climate and sense of belonging.</p>
Attendance 	<p>Counselling, psychology and therapy initiatives may improve attendance outcomes.</p> <p>Positive results were found in 2 out of 3 studies.</p> <p>Of the studies with positive findings, one found a decrease in absenteeism for students with serious emotional disturbances when referred to community-based services and supports by their school (Green et al., 2016). The other revealed similar improved attendance rates when students attended schools offering an MTSS counselling program (Akos et al., 2019)</p>



Image: iStock.com/Valeriy_G

4.3.2. Universal mental health programs – Overall findings

Universal mental health programs: The school setting presents a unique opportunity to implement mental health initiatives, aligning support with students' daily routines and educational environments. Delivering mental health programs within classrooms and during regular school hours enhances both the accessibility and integration of mental health services into the existing school ecology. Universal mental health programs are delivered to entire year groups or schools and are generally preventative in nature (Tier 1 system of support). The focus is typically on developing students' social-emotional skills of self-awareness, self-control and interpersonal skills, and to foster positive emotions, character strengths and achievement.




Universal mental health programs may improve wellbeing outcomes. They do not seem to improve⁶ academic and attendance outcomes

Evidence from the 9 high or very high-quality studies underpinning these findings suggests that this approach may not be as effective as others recognising that these programs are focused on preventing all students from demonstrating 'at-risk' behaviour. This Tier 1 support does not target specific students but aims to catch those most 'at risk'. Evidence indicates that when a qualified mental health professional is involved in the program, results are more consistently positive than when the program is delivered by an unsupported teacher who has been trained in the approach.

The studies exploring universal mental health programs in Australian low-SES contexts are Dray et al. (2017) and Iizuka et al. (2014). Table 6 presents the findings from the papers in this section. For more detail regarding each of the relevant papers, refer to [Table B4](#) in [Appendix B](#).

⁶ Throughout this review, the phrase 'do not seem to improve' is used to describe the aggregated outcome findings drawn from the included papers in which the majority show null results. Refer to [Section A7](#) for a more detailed explanation.

Table 6: Universal mental health program findings by outcome

Outcome	Findings
<p>Academic</p> 	<p>Universal mental health programs do not seem to improve academic outcomes.</p> <p>One study showed positive results, while 3 found null results (one of which had a positive subgroup finding).</p> <p>Only one out of 3 studies examining teacher-led social and emotional learning (SEL) programs found a positive effect on student outcomes. This randomised controlled trial, conducted over a 4-year period, demonstrated higher levels of basic proficiency in reading (Year 4), writing (Year 5 and 6) and maths (Year 4) (Schonfeld et al., 2015).</p> <p>A positive psychology program, delivered by teachers who receive training from clinical psychologists and are then supported by a school counsellor, led to improvement in student GPA scores (Shoshani et al., 2016).</p>
<p>Wellbeing</p> 	<p>Universal mental health programs may improve wellbeing outcomes.</p> <p>Three studies found positive results and 3 studies showed null results.</p> <p>Four studies evaluated the impact of SEL programs on student wellbeing: one Australian study showed no overall impact (Dray et al., 2017), 2 showed no overall impact but revealed positive outcomes for specific subgroups (H. Li et al., 2023; Lin et al., 2023) and one demonstrated positive effects overall (Bardhoshi et al., 2017). The study with positive results found improvements in self-efficacy for students participating in a specialised classroom counselling intervention delivered by a qualified external counsellor.</p> <p>A program focused on positive psychology found improved emotional subjective wellbeing, peer relations, emotional engagement and cognitive engagement (Shoshani et al., 2016). Similarly, a cognitive behaviour therapy program in an Australian secondary school demonstrated stronger mental health for ‘at-risk’ students, especially girls (Iizuka et al., 2014).</p>
<p>Attendance</p> 	<p>Universal mental health programs do not seem to improve attendance outcomes based on evidence from 2 studies.</p> <p>Rather, one of the studies featuring a SEL program more frequently implemented by schools with a high proportion of students from low-SES backgrounds was negatively associated with lower attendance rates (Weems, 2024). The author suggests that the associated low attendance is in line with expected trends in low-SES schools. Not all comparison schools were in low-SES contexts unlike the schools adopting the SEL program.</p>

Similar to [Example 1](#) in section 4.2, learnings from mental health initiative studies in Australia that did not meet our inclusion criteria for this review are provided separately (refer to [Example 2](#)).

Example 2: Australian mental health initiatives out of scope for this review**Experiences of school and allied health professionals in mental health education**

One Australian study aimed to understand the perspectives and experiences of school staff and allied health professionals towards mental health education and school-based mental health literacy (MHL) programs (Marinucci et al., 2023). The lack of focus on student outcomes meant that the article didn't meet our search criteria.

Using an exploratory qualitative and quantitative survey, responses from 88 participants generated a list of 27 school-based programs, with most focusing on SEL, currently in use across Australian schools. The 2 most frequently reported programs were The Resilience Project and Zones of Regulation, mentioned by 8 and 7 participants, respectively. When asked if they feel competent to deliver mental health education, school staff indicated that they felt less competent compared to allied health professionals. Allied health professionals also reported their professional training addressed mental health education, which most school staff did not.

Further, both groups reported teacher reluctance to deliver mental health education, which was attributed to a lack of training and prioritisation of the academic curriculum. Regarding student outcomes, the majority of participants strongly agreed that mental health initiatives could strengthen student wellbeing, including mental health, help-seeking behaviour, responding to others, resilience and adaptive coping. However, there was a stronger sense of agreement among allied health professionals than school staff that mental health programs could strengthen student academic performance.

The study concluded with several suggestions for sustainable and feasible program implementation:

- sufficient training of school staff in youth mental health
- implementation of evidence-based mental health programs
- clear school policies and procedures that cover appropriate language and content for teaching and promoting mental health
- allied health professionals, such as school psychologists, supporting school staff to develop student MHL and implementing whole-school approaches is essential rather than the teachers delivering these approaches on their own.

4.4. Nursing initiatives

School-based nurses are typically a component of student support systems providing health care and promoting overall wellbeing in education settings. In this literature review, some nursing services offered as part of a multiple service initiative are included under school-based health centres and community school models.

School nurses may offer one or more of the following:

- first aid and emergency care
- health assessment and screening (hearing, vision, dental, mental health)
- medication administration
- case management, particularly chronic illness management (for example, diabetes and asthma)
- infection control
- immunisation
- mental health.




4.4.1. Nursing initiatives may improve academic, wellbeing and attendance outcomes

These initiatives were explored in 3 studies and 2 literature reviews of medium quality.⁷ There is limited evidence for improvements in academic outcomes across the 5 papers, but one study found improvement associated with a school nursing service across all 3 outcomes (Kocoglu & Emiroglu, 2017). The effectiveness of nursing initiatives varied, largely depending on factors such service coverage, the types of services offered and contextual factors.

The study exploring nursing initiatives in an Australian low-SES contexts is Dennis et al. (2016). [Table 7](#) presents the findings from the papers in this section. For more detail regarding each of the relevant papers, refer to [Table B5](#) in [Appendix B](#).

⁷ According to [AERO's Standards of Evidence](#).

Table 7: Nursing findings by outcome

Outcome	Findings
Academic 	<p>Nursing initiatives may improve academic outcomes; however, evidence is limited.</p> <p>One Turkish study (Kocoglu & Emiroglu, 2017) associated a nursing initiative with improved average end-of-term grades for students aged 8 to 9 years.</p> <p>Of the 2 reviews of nursing interventions, findings regarding academic improvement were few. The integrative review (Yoder, 2020) of 16 studies found only 2 that measured academic outcomes, both of which found no quantifiable improvement. The systematic review (Best et al., 2018), which included 65 studies, reported only a single study that measured academic outcomes. This study found that an asthma care management nurse initiative either maintained or improved students' GPA.</p>
Wellbeing 	<p>Nursing initiatives may improve wellbeing outcomes.</p> <p>An Australian pilot study of the Healthy Learner model found an improvement in student wellbeing by providing targeted support after identification and needs-based referral by a school nurse (Dennis et al., 2016). The nurse diagnosed up to 7 health problems per student, ranging from serious neglect to minor problems such as uncorrected vision or hearing. In a separate study (Kocoglu & Emiroglu, 2017), the types and number of nursing interventions were positively correlated with knowledge, behaviours and quality of life for participating students.</p> <p>One review (Best et al., 2018) showed that nursing interventions positively impacted knowledge about, and attitudes towards, health issues, yet did not improve dietary behaviours. Similar results were found in a study by Schroeder et al. (2023) in which lowering nurse workload was found to be associated with improved participation in asthma education, but had no impact on wellbeing.</p>
Attendance 	<p>Nursing initiatives may improve attendance outcomes.</p> <p>A literature review (Yoder, 2020) found that 6 out of 13 studies evaluating absenteeism reported a statistically significant reduction in absenteeism. A quasi-experimental study noted improved attendance for participants compared to baseline and a positive correlation between the number of nursing interventions and attendance (Kocoglu & Emiroglu, 2017). Similarly, a systematic review of literature on nursing interventions found a reduction in health-related absences (Best et al., 2018). However, Schroeder et al. (2023) found no evidence of a statistically significant association between attendance in chronic absenteeism and lower nurse workload.</p>

Similar to [Example 1](#) and [Example 2](#), we share some learnings in [Example 3](#) about Australian studies that did not meet inclusion criteria for our review but may be relevant to systems and sectors.

Example 3: Australian nursing initiatives out of scope for this review

1. An evaluation (Banfield et al., 2015), while not conducted in a low-SES school setting, found qualitative evidence that student quality of life improved after participation in a health promotion, prevention and treatment initiative delivered by a School Youth Health Nurse in the Australian Capital Territory.
2. A study (McCluskey et al., 2019) explored student, nurse, teacher, principal and parent perceptions of the resources available to school nurses in Western Australia and found that all nurses were under-resourced with regard to time, space, professional learning and support.
3. Findings from another study (Moyes & Karemba, 2025) noted that many nurses accidentally find themselves in school nursing roles for personal and professional reasons and, therefore, lack specialist training.
4. A study of school-based primary healthcare implementation found that working across education and health systems was a challenge, and the role of the school-based primary health care service needed to be defined. Nonetheless, a collaborative culture, relationship building and flexibility in work processes facilitated the integration of nurses into school teams (Sanford et al., 2022).
5. There were several departmental reports and evaluations, such as Western Australia's school-aged health service review, which were not included for review. A scoping review protocol about Australian nursing work and models of delivery has been published (Williams et al., 2025) and the review is currently underway. Once completed, it will provide more thorough evidence on nursing intervention in schools in Australia.
6. The Wellbeing and Health In-Reach Nurse (WHIN) Coordinator Program is an initiative of the NSW Government that places wellbeing nurses in NSW public schools within vulnerable communities (Tomiczek et al., 2025). The program offers a novel approach to improving health, wellbeing and educational outcomes for students and their families by locating health expertise in schools while ensuring leaders and teachers are not required to take on greater responsibility for coordinating health service provision. After a successful pilot phase in 2018, the program was expanded and, as of June 30, 2024, 93 wellbeing nurses were operating in 351 schools across the state. Wellbeing nurses are now considered an integral part of school wellbeing teams, providing a crucial clinical leadership role on health matters. Operating within the mandatory environment of schools allows wellbeing nurses to identify needs that would otherwise go unaddressed, especially for families with limited resources or health literacy. The program is considered to have successfully delivered supports for vulnerable school communities, achieving health and wellbeing outcomes and supporting educational outcomes that would be unlikely without the service being delivered in schools.

4.5. Social work, occupational therapy and dental initiatives

Social workers in schools support students by addressing social, emotional and environmental challenges. Social workers serve as a link between students, families and the wider community, providing support, advocacy and crisis intervention.

Occupational therapists play a role in fostering inclusive education environments. Education-based occupational therapy services are multi-tiered and range from developing and implementing school-wide strategies, to working with teachers to support students' engagement in all aspects of their learning and working one on one with individual students. There is large variation in occupational therapy presence, employment and service delivery across Australia (Jeremy et al., 2024; Pozorski et al., 2023).

Dental initiatives provide accessible oral healthcare and education to students, often through mobile dental vans or onsite clinics, and aim to promote good oral hygiene habits as well as address dental issues early.

Social work, occupational therapy and dental findings are limited as only one study was identified for each initiative type

This does not indicate that these initiatives are ineffective, but rather that the evidence is insufficient to draw firm conclusions.



Image: iStock.com/Aiman Dairabaeva

4.5.1. Social work overall findings

The number of school social workers employed were positively correlated to school graduation rates, particularly for high-poverty schools and districts with a high number of schools (K. Tan et al., 2015).

4.5.2. Occupational therapy overall findings

Although occupational therapists can work at all MTSS tiers, only one occupational therapy initiative was found in this review. This initiative provided targeted support to students and assessed only wellbeing outcomes. The study shows an occupational therapy initiative, Movement Matters, had no effect on students emotional and behavioural wellbeing (Fitzgerald & Cobb, 2021).

4.5.3. Dental overall findings

One study was found on school-based dental intervention, which focused on attendance-related outcomes for children at high risk of developing tooth decay and cavities. Implementation of a school-based dental prevention initiative increased aggregate attendance and reduced chronic absenteeism (Ruff et al., 2023).

For more details regarding each of the relevant papers, refer to [Table B6](#) in [Appendix B](#).

Speech pathology

Despite their value in supporting students with communication, language and literacy difficulties, no papers on school-based speech pathology initiatives met our inclusion criteria. However, a recent study, while not specifically focused on low-SES contexts, may have relevance, especially for schools in remote areas where access is a barrier (refer to Example 4).

Example 4: An Australian speech and occupational therapy initiative out of scope for this review

One Australian study (Langbecker et al., 2019) of a speech and language therapy and occupational therapy program delivered through videoconferencing, found improvement in teacher-rated measures of students' speech, language, class participation and overall educational outcomes. The program was provided over a 12-week period by final-year undergraduate allied health students from a local university to students in 5 rural Australian schools. Students were accompanied to school-based sessions by a teacher aide or equivalent during the school day. Delivering allied health therapy via telehealth shows promise as a means to improve student outcomes in remote areas, though further research is needed.

5. Facilitators of successful implementation

By recognising facilitators and anticipating challenges to integrating health and allied health initiatives, schools can proactively implement effective strategies. The following section provides a summary of the key implementation facilitators identified across the selected papers and Australian examples. To contextualise further for Australian schools, some additional references have also been included.

Four key facilitators of successful implementation were identified:

- sustainable resourcing
- stakeholder collaboration
- operational adaptability
- program fidelity.

A more comprehensive discussion of these factors is available in the broader literature – for example, Looman et al. (2021).

5.1. Sustainable resourcing

5.1.1. Funding

As health and allied health initiatives can be time- and resource-intensive to establish, guaranteed funding models are valuable. Therefore, addressing resource and financial barriers is important for supporting the long-term success of health and allied health initiatives (Elsenburg et al., 2023; Olubiyi et al., 2019; Rosado, 2022; Sparks & Mulhern, 2024). Securing funding beyond the initial phase ensures that momentum and positive impact can be sustained.

5.1.2. Workforce

Beyond funding, successful implementation requires other resource constraints to be addressed (Bersamin et al., 2019; Rosado, 2022; Ruff et al., 2023). To be effective, health and allied health initiatives need sufficient qualified health professionals. Workforce shortages, particularly in rural and remote areas, are a key consideration (Yisma et al., 2021) and may be in part ameliorated through virtual or telehealth options (Langbecker et al., 2019; Sanchez et al., 2019). Although not stated in the included studies, literature suggests that effective collaboration between health and education hinges on coordinator roles that actively link services and manage complex care. Consequently, the success of integrated models may rely on establishing and promoting new positions or expanding existing ones, such as school counsellors, or nurse coordinators, whose primary function is to coordinate services and navigate the system for students and families (Rungan, Smith-Merry, et al., 2024).

5.2. Stakeholder collaboration

Navigating the complex landscape of multidisciplinary partnerships and ensuring collaboration between stakeholders is key to the effective implementation of initiatives (Burman et al., 2023; Rungan et al., 2025). Stakeholders' diverse professional backgrounds often result in differing perspectives on initiative goals, implementation strategies and measures of success. The success of multidisciplinary service models depends on diverse professionals and agencies collaborating effectively, even when priorities conflict. A clear, shared vision helps to overcome differences that could create friction and impede progress (Noon & Zadkovich, 2021).

Cohesive community partnerships are also important. Initiatives should be adapted to be culturally safe (Iizuka et al., 2014; Rutledge et al., 2023). Establishing culturally safe initiatives and services is important for every community, but is essential for First Nations peoples (Burman et al., 2023; Rungan, Liu, et al., 2024). Authentic collaborations that include community voice, recognise and build on existing community assets, and uphold self-determination, enable First Nations communities to lead and co-design initiatives from conception to implementation. Such collaborations help ensure initiatives are relevant, culturally safe and tailored to the communities' unique needs (Australian Institute for Teaching and School Leadership, 2022; Mendoza Diaz et al., 2021).

5.3. Operational adaptability

A significant challenge for schools is their transformation from a purely educational institution to one where a range of services are offered. Schools may require support to plan for and manage the extensive operational and cultural changes required for this move. Successful initiatives often start small, building incrementally on existing services rather than attempting large-scale transformation from the outset. This approach allows flexibility and ensures initiatives can adapt to the evolving needs of the school community (Noon, 2019).

5.4. Program fidelity

While stakeholder collaboration and operational adaptability are important for meeting unique community needs, program fidelity is also important for ensuring initiatives are delivered as intended. Program fidelity, or the extent to which a program is implemented as intended by its developers, supports intended positive student outcomes (Reinke et al., 2020). Deviations from the original program design can reduce the effectiveness of initiatives and limit the extent to which evaluations can demonstrate program effectiveness.

However, maintaining fidelity can be challenging, especially if aiming to meet community needs and creating a shared vision. Further, operational barriers, such as inadequate staff training or insufficient resources, may lead to program modifications. While adapting programs to meet the unique needs of a school community is sometimes necessary, it can unintentionally reduce their effectiveness. Striking a balance between local adaptation and preserving the evidence-based components of a program is beneficial (Reinke et al., 2020).

6. Conclusion

While health and allied health initiatives are common in Australian schools, there is limited evidence regarding their impact, especially in schools with concentrations of students from low-SES backgrounds. The needs of these students are substantial and cannot always be met by educational initiatives alone. The findings from this literature review provide some insights to help policymakers make decisions about incorporating health and allied health initiatives into schools to improve student academic, wellbeing and attendance outcomes. However, it is essential to note that international findings cannot be assumed to directly translate to the Australian context. Table 8 provides a summary of the findings from this review.

Table 8: Summary of findings

Initiative	Summary of findings*
Multiple service initiatives	
<p>1. School-based health centres (SBHCs)</p> <p>SBHCs are healthcare clinics located within schools that provide students with accessible, convenient and comprehensive health services.</p>	<ul style="list-style-type: none"> • Associated with improved wellbeing and attendance outcomes • May improve academic outcomes • Effectiveness varies depending on factors such as resourcing, service coverage and types of services offered • Students from lower-socio-economic backgrounds may experience greater benefits from school-based health centres compared to their more advantaged peers
<p>2. Community school models (CSMs)</p> <p>CSMs turn schools into hubs that serve both students and the broader community, offering services tailored to the local context.</p>	<ul style="list-style-type: none"> • May improve academic, wellbeing and attendance outcomes • Variable results due to differences in scope and focus
Mental health initiatives	
<p>1. Counselling, psychology and therapy</p> <p>These initiatives are typically designed to support students at risk of, or already experiencing, specific challenges, like anxiety, depression or trauma.</p>	<ul style="list-style-type: none"> • Associated with improved wellbeing outcomes • May improve academic and attendance outcomes • Are most effective when delivered as small-group or individualised supports by qualified professionals
<p>2. Universal mental health programs</p> <p>These programs typically offer preventative Tier 1 support. They assist students in developing social-emotional skills as well as other interpersonal skills.</p>	<ul style="list-style-type: none"> • May improve wellbeing outcomes. • Are less consistently positive when delivered by an unsupported teacher, even if trained in the approach

Initiative	Summary of findings*
Nursing initiatives	
Programs or services that promote and protect the students' health and wellbeing.	<ul style="list-style-type: none"> • May improve wellbeing and attendance outcomes • May improve academic outcomes, but evidence is more limited • Show varying effectiveness depending on service coverage, types of services offered and contextual factors
Other initiatives	
These include social work, occupational therapy and dental initiatives.	<ul style="list-style-type: none"> • Insufficient evidence to draw firm conclusions about their impact

* These international findings should not be assumed to directly translate to the Australian context.

As previously mentioned, the lack of Australian primary research into the impact of these initiatives on student outcomes means that a definitive conclusion for Australian schools cannot be reached. Additional Australian research is needed to provide policymakers with clearer and more actionable guidance – for example:

- determining which students, schools and communities benefit most from school-based health and allied health initiatives, and under what conditions
- ascertaining the specific characteristics of successful initiatives, especially within low-SES contexts
- identifying initiative types and delivery modes with strong potential to improve student outcomes in low-SES contexts, such as exploring telehealth as a promising alternative for small or remote schools
- understanding the facilitators and barriers to developing a robust evidence base regarding the role of health and allied health initiatives in an Australian setting.

To ensure equity and inclusion, future research should incorporate culturally responsive approaches that can expand the existing evidence base and deepen our understanding of context-specific needs and challenges.

Research on school-based health and allied health initiatives is inherently complex due to systemic challenges in cross-sector work, particularly within schools with concentrations of students from low-SES backgrounds, making it difficult to generate robust evidence.

School-based health and allied health initiatives are not a standalone solution, but they are a key part of supporting educational equity. Professionally delivered, integrated and sustainable initiatives help remove the systemic barriers that disproportionately impact students from low-SES backgrounds.

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Appendix A: Methods

This appendix outlines the methods AERO used to conduct this literature review, which was based on PRISMA guidelines with pragmatic adjustments to scope, timeframes and processes.

A1. Eligibility criteria and identifying relevant studies

Inclusion and exclusion criteria were developed per the PICO framework. Table A1 presents the inclusion and exclusion criteria in detail. Papers meeting these criteria were included in the review.

Table A1: Eligibility criteria for review

Title	Inclusion criteria	Exclusion criteria
Population	Primary and secondary school <ul style="list-style-type: none"> • students • teachers and leaders • health and allied health professionals 	Students in the following settings: <ul style="list-style-type: none"> • early childhood education and care, including preschool • tertiary institutions • home education • playgroups and informal care • distance education
Intervention	Studies that investigate specific health or allied health initiatives, interventions, programs, policies or service delivery models that benefit students	Studies that investigate specific health or allied health initiatives, interventions, programs, policies or service delivery models that benefit teachers, leaders, or allied health professionals
Context	Government or non-government schools (including systemic Catholic and Independent schools) with concentrations of students from low-SES backgrounds	Non-school settings where health and allied health interventions are delivered (such as community health centres, hospitals, youth centres) without an affiliation with school
Outcomes	<ul style="list-style-type: none"> • Primary – academic outcomes • Secondary – other school-related outcomes such as connectedness, engagement, belonging, wellbeing, attendance or completion 	<ul style="list-style-type: none"> • Health outcomes • Pre- and post-school outcomes
Publication details	<ul style="list-style-type: none"> • Peer reviewed • Published in English • Published from 2014 	<ul style="list-style-type: none"> • Theoretical or opinion papers or pieces; grey literature, conceptual frameworks, news articles or anecdotal reports • Published in languages other than English • Published prior to 2014

Following a preliminary search to identify keywords contained in the titles and abstracts of relevant papers, a full search strategy was developed in consultation with AERO’s Research Librarian and reviewed by an independent AERO researcher with expertise in conducting literature reviews.

Three databases covering education and health were searched:

- Education Source & ERIC (EBSCO)
- Australian Education Index, Education Collection & Education Research Index (excluding ERIC) (ProQuest)
- CINAHL (EBSCO).

The search strategy was adapted for each database. Table A2 presents the full search terms for Education Source and ERIC.

Table A2: Search terms

Population	Intervention	Context	Outcome
Primary and secondary school students	School health and allied health initiatives	Schools with concentrations of students from low-SES backgrounds	Student outcomes
TI(primary OR elementary OR secondary OR “junior high” OR school*) OR AB(primary OR elementary OR secondary OR “junior high” OR school*) OR SU(primary OR elementary OR secondary OR “junior high” OR school*)	“Coordinated school health programs” OR “School health” OR DE “School mental health” OR “school allied health” OR “School nurs*” OR “School-linked human services” OR “School social work*” OR “School psycholog*” OR “Educational counsel#ing” OR “Counsel#ing in elementary education” OR “Counsel#ing in middle school education” OR “Counsel#ing in secondary education” OR “counsel#ing in education” OR “school counsel*” OR “Social work* in education” OR “Student counsel*” OR “integrated services” OR “Comprehensive School Health Education” OR “school physio*” OR “school occupational therap*” OR “school dietician” OR “school therap*” OR “community-based intervention” OR (“school based” OR integrated OR interdisciplinary OR intersectoral) n3 (health OR “occupational therapy” OR physio* OR nurs* OR “speech patholog*” OR counsel* OR psycholog* OR therap* OR nutrition* OR dietetics OR dietician OR “social work*”))	“low* socioeconomic” OR “low* socio economic” OR “low* socio-economic” OR “low* income” OR “low* SES” OR “socioeconomic status” OR “socio economic status” OR “socio-economic status” OR SES OR disadvantage* OR inequit* OR inequalit* OR disparit* OR “lack of equit*” OR poverty OR “school segregation” OR residualisation OR “socioeconomic hardship” OR “socio economic hardship” OR “socio-economic hardship” OR underprivileged OR “less affluent”	(student* OR learning OR academic OR education*) n5 (outcome* OR impact* OR achievement* OR underachieve* OR attain* OR performance OR success* OR progress* OR grades OR inclusion OR wellbeing* OR “well-being” OR “well being” OR belong* OR participat* OR “personal growth” OR attend* OR engage* OR behavio#r* OR connectedness OR health OR complet*)

A2. Selection of papers

The selection of papers was conducted independently by 4 researchers, who reviewed articles for relevance based on the inclusion and exclusion criteria, first at the title and abstract level and, subsequently, by full text. The first 10 papers were moderated by 2 reviewers to establish consistency. Where a reviewer had doubts about a paper’s suitability for inclusion, a second reviewer evaluated the data. Consensus was sought by discussion until full agreement was reached. Covidence, a web-based tool for systematic reviews, was used to support screening and data extraction. The process of study selection is shown in Figure A1.

Figure A1: PRISMA flow diagram of study selection



A3. Data extraction and charting

The research team created a data extraction tool to ensure all relevant data required to answer the research questions was extracted from the included studies. Three researchers undertook the data extraction, with each record extracted by a single researcher. As a test of consistency, 21 of the included articles were moderated by the researchers who independently reviewed and extracted data according to the tool. The individual extractions were compared, and the extracted data found to be consistent. Data was charted by sourcing the following information from each included paper:

- citation
- country
- study details (including study type and aim)
- methods and analysis
- sample (including sample size, demographics and indigeneity)
- setting, intervention details (including type and components of approach, type of service – e.g., nursing – and barriers or facilitators)
- outcome details (including outcome description and key results)
- conclusion
- limitations.

A4. Summary of included papers

A total of 1,898 articles were retrieved from the initial search, and 1,354 remained after duplicates ($n = 544$) were removed. A total of 1,231 articles were excluded for irrelevance after title and abstract screening, leaving 123 articles for review. After the application of inclusion and exclusion criteria, a further 76 articles were excluded, resulting in a total of 47 papers included in the review. Of the 47 papers, 39 were individual studies and 8 were literature reviews. The summary of papers per initiative is presented in [Table A3](#).



Image: iStock.com/monkeybusinessimages

Table A3: Summary of papers by initiative

Initiative	Total no. of papers	No. of studies	No. of literature reviews	No. of papers by country
School-based health centres	9	6	3	United States (7) Australia (2)
Community school models	8	7	1	United States (7) The Netherlands (1)
Counselling, psychology and therapy	14	12	2	United States (13) Mix of countries (1)
Universal mental health	8	8	0	United States (5) Australia (2) Israel (1)
Nursing	5	3	2	United States (3) Australia (1) Turkey (1)
Social work	1	1	0	United States (1)
Occupational therapy	1	1	0	Ireland (1)
Dental	1	1	0	United States (1)

A5. Alignment with AERO's Standards of Evidence

To evaluate the strength of research evidence on the effectiveness of a particular approach, each paper was assessed for rigour and relevance during the data extraction process. Using [AERO's Standards of Evidence](#), a confidence level was assigned to each paper. To ensure consistent and transparent application of the standards, assigned confidence levels from 21 papers were independently reviewed by 2 researchers, and any discrepancies in assessment were discussed and resolved through consensus within the research team.

Rigorous evidence is defined as evidence produced using research methods – whether qualitative, quantitative or mixed methods – that isolate the specific impact of a particular educational approach. Relevant evidence is defined as evidence produced in contexts similar to one's own. Evidence is also relevant when it is derived from many studies conducted over a wide range of contexts, as this suggests that the approach is not dependent on any contextual factor.

A6. Analysis

The identified studies were analysed by theme, grouping them into primary initiatives: multiple service, mental health, nursing, and miscellaneous. These initiatives served as the main categories for the analysis. To provide a more granular examination, 2 initiatives were further divided into subgroups. Multiple service initiatives were categorised into school-based health centres and community school models, and mental health initiatives were categorised into counselling, psychology and therapy initiatives and universal mental health programs. This grouping allowed for an exploration of the literature, enabling the identification of common themes, methodologies and outcomes within each specific initiative and its corresponding subgroups. This approach ensured that the analysis was comprehensive, covering the main initiatives while providing more detailed insights into specific models of care.

A7. Explanation of outcome findings

The papers relevant to a specific initiative and outcome varied in type, quantity, quality and results. This wide variance makes it difficult to compare findings across initiatives and outcomes. To create a basis for reliable comparison, we used a structured system to harmonise findings. We collaboratively agreed on 3 phrases to describe the extent to which the findings described a causal or correlational relationship and whether the effects were positive, mixed, null or negative. These phrases are described in Table A4.




Table A4: Explanation of phrases used to describe findings

Phrase	What we mean	Type of result
Is associated with improved ...	There is a moderate to strong observed relationship (mostly correlational).	Majority positive, some mixed/null, no negatives
May improve ...	There is a modest/mixed association. Findings should be considered cautious, or preliminary, or speculative.	Some positive, some mixed, some null, and no more than one negative finding
Do not seem to improve ...	Studies show majority null results	Majority null, one positive/mixed/negative



Appendix B: Included articles by initiative type



Tables B1 to B6 list the 47 included papers organised according to each type of health and allied health initiative. Details about each paper are provided, including publication and study details and a summary of findings according to academic, wellbeing and attendance outcomes. The first column in each table (Standard of evidence) indicates our assessment of the paper against AERO's [Standards of Evidence](#).⁸

Table B1: Included school-based health centre papers and research design details

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Very High 	Rosado (2022) United States	Quasi-experimental	Measured the effect of school-based health centres (SBHC) on attendance and performance of Black and Latino students living in poverty	Metropolitan primary and secondary schools	Mixed <ul style="list-style-type: none"> improved English no effect on maths 	N/A	Null No effect on attendance until a school had a clinic running for at least 7 years
Very High 	Kjohhede et al. (2025) United States	Quasi-experimental	Examined the association between SBHCs and attendance for students in rural areas	Rural primary and secondary schools	N/A	N/A	Positive Reduced chronic absenteeism
High 	Sanchez et al. (2019) United States	Systematic review (20 studies)	Assessed effect of school-based telehealth programs on healthcare utilisation and health status of urban and suburban students	Metropolitan primary and secondary schools	N/A	Positive School-based telehealth in 6 of the 20 studies showed improvement across a variety of wellbeing measures	Null Reduced days missed due to asthma (not significant)

⁸ AERO's Standards of Evidence establish AERO's view on what constitutes rigorous and relevant evidence. When evidence is rigorous and relevant, it provides confidence that a particular approach is effective in a particular context.

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Knopf et al. (2016) United States	Systematic review (46 studies)	Review assessed the effect of SBHC on educational and health-related outcomes in disadvantaged students	Primary and secondary schools in mixed geographic locations	Positive <ul style="list-style-type: none"> improved GPA increased rates of high school completion 	Positive <ul style="list-style-type: none"> reduced alcohol and drug taking (but not smoking, which increased) reduced incidents and symptoms of asthma increased healthcare utilisation reduced emergency department visits increased use of contraception reduced rates of childbirth increased prenatal care 	Positive Reduced rates of school suspension
Medium 	Larson et al. (2017) United States	Literature review (22 studies)	Examined the effect of SBHCs on effects of childhood trauma, mental health care and academic achievement in disadvantaged students	Primary and secondary schools in a mixed geographic location	Positive Improved GPA	Mixed <ul style="list-style-type: none"> some improved wellbeing through improved access and utilisation of mental healthcare did not consistently improve mental health outcomes 	Positive Improved attendance

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Noon and Zadkovich (2021) Australia	Case study	Examined perspectives on impact and effectiveness of SBH team in disadvantaged students	Metropolitan secondary school	N/A	Positive <ul style="list-style-type: none"> improved overall health and wellbeing vision screening detected uncorrected or undiagnosed refractive errors in over 50% participants 	N/A
Medium 	Rungan, Smith-Merry, et al. (2024) Australia	Mixed methods	Examined school-based integrated care	Metropolitan primary and secondary schools	N/A	Positive <ul style="list-style-type: none"> improved access to healthcare improved receipt of diagnostic and therapeutic support for behavioural, developmental and physical health concerns improved mental wellbeing improved connection 	N/A









Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Bersamin et al. (2019) United States	Observational (Quantitative)	Examined relationship between SBHCs and school connectedness	Secondary schools in a mixed geographic location	N/A	Mixed <ul style="list-style-type: none"> improved school connectedness for students with lower SES no effect for students with high SES 	N/A
Medium 	Lee et al. (2024) United Kingdom	Cross-sectional cohort study	Examined the relationship of multidisciplinary created education, health and care plans (EHCPs) on outcomes of students with intellectual and developmental disabilities	Primary and secondary schools in a mixed geographic location	Negative <ul style="list-style-type: none"> students with EHCPs had lower academic achievement than those without both groups achieved below national benchmarks for their age 	Mixed <ul style="list-style-type: none"> students without an EHCP reported more emotional and behavioural challenges students with an EHCP showed lower levels of pro-social behaviours 	N/A

Table B2: Included community school model papers and research design details

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Very High 	Lawson et al. (2024) United States	Quasi-experimental	Investigated the effect of integrated student supports (ISS) (City Connects program) on student achievement	Metropolitan primary schools	Positive Improved English and maths	N/A	N/A
High 	Jiang et al. (2023) United States	Quasi-experimental	Investigated the effect of ISS (City Connects program) on the achievement and behaviour of middle school students experiencing school mobility	Metropolitan primary and secondary schools	Positive <ul style="list-style-type: none"> improved maths no change in English 	N/A	Positive Improved attendance (reduced days absent and chronic absenteeism)
High 	Truwit (2022) United States	Quasi-experimental	Evaluated the impact of community school models on student outcomes (including City Connects and Communities In Schools programs)	Primary and secondary schools in a mixed geographic location	Mixed <ul style="list-style-type: none"> improved English no change in math 	N/A	Mixed <ul style="list-style-type: none"> declines in suspension no change in drop-out rate increase in chronic absenteeism

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
High 	Elsenburg et al. (2023) Netherlands	Quasi-experimental	Examined the effectiveness of a 2-year integrated approach targeting education, health and poverty in deprived neighbourhoods	Metropolitan primary schools	N/A	Mixed <ul style="list-style-type: none"> improved mental wellbeing no effect on physical wellbeing 	N/A
High 	Turner (2018) United States	Causal comparative	Investigated the impact of ISS (Communities in Schools program) on achievement in disadvantaged students	Primary schools in a mixed geographic location	Negative <ul style="list-style-type: none"> reduced scores in reading and maths 	N/A	N/A
Medium 	Olubiyi (2019) United States	Systematic review (21 reports)	Assessed effectiveness of community school models on mental health care (including City Connects and Communities In Schools programs)	Primary and secondary schools in mixed geographic locations	Positive <ul style="list-style-type: none"> improved maths and English scores improved graduation rate 	Positive <ul style="list-style-type: none"> improved health and wellbeing, including improved physical health reduced school suspensions and disciplinary referrals improved student behaviour, peer relationships and personal responsibility mixed impact on suspension rates 	Positive Improved attendance










Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	O'Dwyer et al. (2016) United States	Causal comparative	Examined impact of City Connects program on academic achievement	Primary and secondary schools in a mixed geographic location	Positive Improved English and maths	N/A	N/A
Medium 	Biag and Castrechini (2016) United States	Case study	Investigated impact of community school program on academic achievement and attendance in low-income schools	Primary and secondary (K to 8) in an urban and suburban area	Mixed <ul style="list-style-type: none"> • family engagement programs improved maths • extended learning programs improved English • social support services reduced English 	N/A	Mixed <ul style="list-style-type: none"> • family engagement programs improved attendance • extended learning programs improved attendance • social support services reduced attendance




Table B3: Included counselling, psychology and therapy papers and research design details



Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Very High 	Kelchner et al. (2019) United States	Quasi- experimental	Assessed the impact of a mental health counselling intervention delivered by supervised counsellors-in-training to students with an individualised education plan	Metropolitan primary schools	N/A	Mixed <ul style="list-style-type: none"> reduced internalising behaviours (anxiety and depression) and overall problems results were less clear for externalising behaviours (aggression and acting out) 	N/A
Medium 	Akos et al. (2019) United States	Descriptive	Assessed the impact of attending a school receiving an advanced school counselling designation	Metropolitan primary and secondary schools	Null (negative subgroup) <ul style="list-style-type: none"> No impact on overall student achievement in maths and reading Lower achievement in middle-grade reading for Black students 	N/A	Positive Number of days absent decreased, specifically for middle school and vulnerable students

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Bowen (2023) United States	Mixed methods case study	Assessed the impact of a multi-tiered, universal, mental health program with a full-time school psychologist and several external part-time therapists	Remote/rural primary school	N/A	Positive Generally improved students' asset development, including social skills, commitment to learning and positive values	N/A
Medium 	Clark and Malecki (2022) United States	Cross- sectional	Assessed the effect of a school-wide screening for student wellbeing and psychopathology through a latent dual-factor approach conducted by a school psychologist	Metropolitan primary and secondary school	N/A	Positive Provides a more comprehensive picture of students' mental health	N/A

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Eiraldi et al. (2016) United States	Quasi- experimental	Assessed the impact of group cognitive-behavioural therapy for externalising and internalising disorders implemented by a school counsellor	Metropolitan primary and secondary schools	N/A	Mixed <ul style="list-style-type: none"> • decrease in overall externalising disorders and ADHD, but in oppositional defiant disorder or conduct disorder • reduced overall anxiety disorders, particularly social phobia and major depressive episodes, but not separation anxiety disorder • decreased internalising disorders and mood disorders, but not major depressive episode or separation anxiety disorder 	N/A

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Green et al. (2016) United States	Quasi- experimental	Assessed the effect of school referrals of children with serious emotional disturbances to systems of care	Mixed geographic locations primary and secondary schools	Positive Lower rates of school failure.	Positive Improved on internalising and externalising symptoms.	Positive <ul style="list-style-type: none"> • decrease in the proportion of students absent one or more days per week • results were stronger compared to children referred from mental health agencies
Medium 	Kerstein and Cooper (2025) Multi-country	Literature review (299 randomised controlled trial studies)	Examined the effect of single-session psychological interventions	Mixed geographic locations primary and secondary schools	N/A	Positive Small to moderate improvement in psychiatric problems, helped to reduce self-hate and increase the desire to stop self-injurious behaviour	N/A

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Leggiadro (2021) United States	Quasi- experimental	Assessed the impact of school counselling programs run by a school counsellor	Metropolitan primary schools	N/A	Null Not effective in reducing the number of behaviour incidents or discipline consequences from Year 5 to 6	N/A
Medium 	Rutledge et al. (2023) United States	Case-control study	Assessed the impact of a state-recognised comprehensive school counselling program and school counsellor caseload on Black and Hispanic students	Mixed geographic locations primary and secondary schools	Positive Higher maths and English passing rates	N/A	N/A
Medium 	McKay et al. (2025) United States	Literature review (16 studies)	Examined a range of mental health interventions: <ul style="list-style-type: none">• 5 yoga/mindfulness• 5 cognitive- behavioural therapy (CBT)• 1 positive psychology	Mixed geographic locations primary and secondary schools	N/A	Mixed • several interventions were effective in reducing symptoms of depression, anxiety and internalising symptoms; however, not all with statistically significant results • some interventions showed success in specific areas, but not in others	N/A

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Metzler (2019) United States	Cohort study	Assessed the effect of an early intervention therapeutic counselling program delivered by graduate-level mental health interns	Metropolitan primary and secondary schools	Null No results were found for students' teacher-reported level of competence in reading and maths, either overall or by subgroups	Positive Improved students' social skills and reduced problem behaviours	N/A
Medium 	Ortega (2021) United States	Correlational study	Assessed the relationship between school counsellor-to-student ratio and student outcomes	Mixed geographic locations primary and secondary schools	N/A	Null Did not improve student discipline referrals	Null (positive subgroup) Positive correlation with attendance for white non-Hispanic students








Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Sparks and Mulhern (2024) United States	Event study	Assessed the impact of policy and funding reforms aimed at increasing access to high school counsellors	Mixed geographic locations secondary schools	Mixed <ul style="list-style-type: none"> improved high school graduation rates and public college enrolments pass rates and scores on the maths exam increased while those on the English exam decreased slightly, and the overall pass rate did not change 	Positive <ul style="list-style-type: none"> improved student perceptions of school climate and sense of belonging reports of caring staff-student relationships and school connectedness increased delinquency declined 	N/A
Medium 	Taylor et al. (2024) United States	Mixed methods	Assessed the effect of a multi-tiered system of social and emotional learning (SEL) support focused on supporting students' academic outcomes post-COVID-19 pandemic delivered by a school counsellor	Metropolitan primary school	Positive Improvement in reading and maths scores for students participating in small-group mentoring and individualised play therapy	N/A	N/A

Table B4: Included universal mental health program papers and research design details

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Very High 	Bardhoshi et al. (2017) United States	Randomised controlled trial	Assessed the effect of a specialised classroom counselling intervention delivered by an external counsellor	Rural primary school	N/A	Positive Improved students' self efficacy	N/A
Very High 	Dray et al. (2017) Australia	Cluster randomised trial	Assessed the effect of a pragmatic universal intervention targeting student resilience protective factors delivered by teachers	Mixed geographic locations secondary schools	N/A	Null Did not make a meaningful difference in overall behaviour, internalising behaviours or prosocial behaviour	N/A
Very High 	Schonfeld et al. (2015) United States	Cluster randomised trial	Assessed the impact of an enhanced curriculum-based SEL program delivered by teachers	Metropolitan primary schools	Null (positive subgroup) Higher levels of basic proficiency in reading (Year 4), writing (Years 5 and 6) and maths (Year 4)	N/A	N/A

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
High 	lizuka et al. (2014) Australia	Quasi-experimental	Assessed the impact of a CBT program adapted for non-English speaking background context of minority groups delivered by teachers	Metropolitan secondary school	N/A	Positive Improved the mental health of 'at risk' students, with girls more responsive to the program than boys	N/A
High 	Li et al. (2023) United States	Randomised controlled trial	Assessed the impact of a school-wide SEL implementation model for school leadership teams	Metropolitan primary schools	Null No effect on state standardised assessment of maths and English	Null (positive subgroup) <ul style="list-style-type: none"> positive effect on social and emotional competence and attentional skills, and teacher ratings of aggression for students in schools with low baseline levels of social-emotional leadership. no impact in schools with high baseline SEL leadership 	N/A







Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
High 	Lin et al. (2023) United States	Quasi-experimental	Assessed the impact of a universal mental health promotion program delivered by occupational therapy students	Unknown location primary schools	N/A	Null (positive subgroup) <ul style="list-style-type: none"> no overall change in students' emotional self-efficacy (ESE) students who started with lower ESE saw some improvement, while students who started with higher ESE slightly declined 	N/A
High 	Shoshani et al. (2016) Israel	Quasi-experimental	Assessed the effect of a positive psychology program delivered by teachers supported by a school counsellor	Metropolitan secondary schools	Positive Improvement in GPA scores by 7%	Positive Increases in emotional subjective wellbeing, peer relations, emotional engagement and cognitive engagement	Null No difference in attendance between intervention and control group
Medium 	Weems (2024) United States	Cross-sectional	Examined the association between the length and type of SEL program, and student outcomes	Mixed geographic locations primary schools	Null Neither the length nor type of SEL program influenced student academic growth	N/A	Negative CASEL SElect is associated with lower attendance and higher rates of poverty

Table B5: Included nursing papers and research design details

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Dennis et al. (2016) Australia	Mixed methods	Assessed the effects of the Healthy Learner Model, which included a nurse as part of a learning support team in school	Metropolitan Years 7 to 9 students	Null No improvement in reading and numeracy bands on NAPLAN	Positive Targeted support for specific issues due to preidentification of wellbeing issues and needs-based referral	N/A
Medium 	Kocoglu and Emiroglu (2017) Turkey	Quasi-experimental	Assessed the effects of a school nursing service comprised of assessments and intervention on student outcomes	Regional fourth-grade primary school students	Positive Improved average grades by term	Positive Improved knowledge, behaviours and quality of life	Positive Improved absenteeism
Medium 	Schroeder et al. (2023) United States	Cross-sectional	Assessed the effectiveness of lower nurse workload on student outcomes (Reduced workload defined as lower student-to-nurse ratios)	Metropolitan K–12	Null No improvement in maths and English test scores	Mixed <ul style="list-style-type: none"> • no improvement in health office visits, immunisation compliance or being overweight • improvement in participation in asthma education 	Null Chronic absenteeism






Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Medium 	Yoder (2020) United States	Integrative literature review (16 studies)	Assessed the relationship of school nursing to academic outcomes	Mix of metropolitan and non-metro K–12 students	Mixed <ul style="list-style-type: none"> no improvement in standardised maths or English scores improvement in academic scores reported in categories of improved, same or worsened 	N/A	Mixed <ul style="list-style-type: none"> statistically significant decrease in absenteeism (6 studies) no effects (3 studies) and inconclusive (4 studies)
Medium 	Best (2018) United States	Systematic review (65 studies)	Assessed how school nurse interventions were linked to student outcomes Examined care coordination, leadership, quality improvement and public health interventions	Mixed geographic area K–12 students	Mixed Improved or maintained GPA	Mixed <ul style="list-style-type: none"> knowledge and attitude on health issues improved did not improve dietary behaviours and BMI 	Positive Decrease in healthrelated absences

Table B6: Included social work, occupational therapy and dental papers with research design details

Standard of evidence	Author (Year) Country	Study type	Initiative description and study aim	Setting	Academic outcomes	Wellbeing outcomes	Attendance outcomes
Social work initiative							
Medium 	Tan (2015) United States	Descriptive case study	The impact of the number of school social workers	Mixed geographic areas Ninth-grade students	Positive School graduation rates improve when controlling for poverty and school district size	N/A	N/A
Occupational therapy initiative							
Medium 	Fitzgerald (2021) Ireland	Mixed methods	Effectiveness of teacher-led occupational therapy program (Movement Matters)	Metropolitan and rural high schools.	N/A	Null No effects on students' emotional and behavioural wellbeing.	N/A
Dental initiative							
Medium 	Ruff (2023) United States	Cluster randomised trial	The effectiveness of school-based dental program to prevent tooth decay and cavities	Metropolitan Primary and high schools	N/A	N/A	Positive • lower aggregate absences in implementation year • lower chronic absenteeism in later years



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