# Mentally Healthy Communities
*Supporting evidence*

be you | Beyond Blue

With delivery partners

Early Childhood Australia — A voice for young children

headspace — National Youth Mental Health Foundation

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# Supporting evidence for the Be You Professional Learning

## Mentally Healthy Communities domain

This review supports the **Mentally Healthy Communities** domain of Be You Professional Learning. It provides an overview of the research and evidence underpinning each of the modules and allows you to further engage with the key themes and advice.

The review provides an in-depth understanding of the context and settings in which evidence for mentally healthy communities has been developed. Specifically looks at the key attributes of a mentally healthy learning community, as well as the strategies that have been shown to be effective in contributing to positive mental health and wellbeing in children and young people within early learning and school settings.

Educators will best engage with this review if read in conjunction with the Professional Learning modules in the **Mentally Healthy Communities** domain.

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**Mentally Healthy Communities: Supporting evidence**

# Glossary

CBT      Cognitive behavioural therapy

RCT      Randomised controlled trial

SEL      Social and emotional learning

# Executive summary

## Background

The mental health of Australia's children and young people remains a top national priority. Close to half of all mental health conditions emerge by the age of 14 years. Early life is a recognised critical period for developing skills and competencies that enable positive mental health, and also as a period for identifying mental health issues before they progress to become clinical disorders.

In 2018, Beyond Blue, in partnership with the Australian Government, launched a national education initiative called 'Be You'. Be You is a multi-component, whole school and early learning service initiative that aims to transform Australia's approach to supporting children and young people's mental health.

To support the Be You initiative, a series of systematic reviews were conducted to summarise the latest research evidence relating to key components of the initiative. This review focuses on mentally-healthy learning communities – defined here as whole school and early learning services. A mentally healthy learning community aims to support children and young people to experience positive mental health and wellbeing. Specifically, this review aims to identify and summarise the recent (2014 onwards) evidence emerging from Australia and other countries with similar economic profiles, to answer the following two questions;

1. *What are the key attributes of a mentally healthy learning community?*
2. *What strategies have been effective in contributing to positive mental health and wellbeing in children and young people within early learning and school settings?*

The findings of this review will support educators to implement the Be You program, and ultimately support schools and early learning services to build mentally healthy learning communities.

## Summary of methods

Two separate review searches were undertaken to answer the above research questions. The first search identified peer-reviewed systematic reviews published since 2014 pertaining to the characteristics of mentally healthy learning communities in which children and young people achieved positive mental health. Studies from Australia, New Zealand, Canada, United Kingdom (UK) and the United States (US), that identified key attributes of a mentally healthy learning community were eligible for review. The second search identified and extracted data from peer-reviewed systematic reviews of studies that reported on strategies that were effective in improving mental health and wellbeing in schools and early learning services. A standardised data extraction tool was used to collate study findings, and an analysis of the gaps in the evidence was undertaken. The search was completed on 24 April 2019.

## Key findings

A number of **key attributes** of mentally healthy learning communities were identified.

- **The whole learning community recognises and acts to support mental health of children and young people.** Because learning communities bring together a large proportion of children and young people, learning processes can be leveraged to support mental health. All members within the learning community recognise and act to support mental health of young people.

- **Multiple levels of mental health promotion and prevention are incorporated into the learning community.** This might include in the classroom, in interactions such as student-teacher or student-

student relationships, or by embedding strategies in school or early learning service policies and processes.

- **Educators have mental health literacy.** Educators within mentally healthy learning communities are equipped with knowledge, skills and resources to respond appropriately and effectively to young people's mental health concerns.

- **The learning community fosters social and emotional learning skills among children and young people.** Children and young people are equipped with individual-level social, emotional and other psychological competencies that give them protective skills to support their wellbeing and to reduce the risk of mental health issues when adversity occurs.

- **The learning community is safe and supportive for all students.** A mentally healthy community provides an environment in which all children and young people experience opportunities to develop positive mental health. Such an environment is inclusive and respects diversity of all kinds.

- **Connectedness is evident in the learning community.** Children, young people, educators, families and other community members contribute to supporting the mental health of the whole community. Connectedness is also evident through strong partnerships with mental health services and local health and other organisations.

A broad range of **strategies** have been identified that successfully contribute to positive mental health and wellbeing in children and young people in learning settings. These can be summarised as:

- **The learning community adopts a whole-community approach to mental health and wellbeing.** Mental health efforts embedded throughout the entire learning community can support positive mental health through policies, curriculum, engaged staff and families, and overall care and support for young people, thus normalising mental health activities.

- **Mental health literacy programs are implemented for educators.** Building mental health literacy among educators to integrate positive mental health practice into their day-to-day interactions with students and to identify and provide appropriate support for children and young people when mental health issues occur.

- **Universal social and emotional learning programs are embedded within the curriculum.** Children and young people who can understand and monitor their emotions are more likely to demonstrate empathy and develop positive relationships, which supports positive mental health and wellbeing. Universally-delivered programs can be integrated into existing school structures and can normalise mental health and wellbeing activities.

- **Universal cognitive behavioural programs are embedded within curriculum.** Universally-delivered cognitive behavioural programs can support all children and young people to develop skills to cope with experiences that may precede mental health issues or conditions.

- **The monitoring of mental health of children and young people occurs within the learning setting.** Monitoring children and young people's mental health can be undertaken through questionnaires and other measurement tools, and can help identify children or young people at-risk or in need of additional mental health support.

- **Supporting the physical health of children and young people can provide benefits for mental health.** Aligning efforts to achieve both physical and mental health goals can be a pragmatic use of resources, and improved health behaviours have been associated with improved mental health outcomes.

# Gaps in the evidence

There was limited evidence examining the key attributes and effective strategies for mental health and wellbeing in early learning services for younger aged children. The experiences and unique needs of specific sub-population groups, such as culturally and linguistically diverse populations, was relatively under-explored compared to the overall general population. Some evidence was found to suggest benefits that may be universal to all community members. Despite wide acceptance of whole-community approaches to mental health and wellbeing of children and young people, the evaluation of such approaches is still developing. The review also found that the outcomes of identified strategies were typically measured immediately after the intervention, and further research is needed to understand the longer-term mental health outcomes of children and young people.

# Discussion of key findings

This systematic review of the evidence established the key attributes of mentally healthy learning communities, and identified effective strategies for contributing to positive mental health and wellbeing for children and young people. Overall it was found that a mentally healthy learning community may feature and implement strategies including:

- integrating mental health and wellbeing into the learning system

- fostering social and emotional competence and mental health literacy among children and young people and educators

- providing a safe and connected environment free from discrimination and stigma, and ensuring connectedness, were characteristics of mentally healthy learning communities

- implementing a whole-community approach to mental health and wellbeing

- providing mental health literacy programs for educators, and social and emotional learning and cognitive behavioural therapy-informed curriculum programs for young people

- monitoring of young people's mental health and supporting physical health and health behaviours.

# Conclusion

The opportunity for learning communities to integrate mental health and wellbeing efforts into school and early learning service operations can be considered a public health priority. While childhood and adolescence are known periods of increased risk for the development of mental health conditions, evidence suggests that mental health promotion during this age period can both foster protective factors and reduce the risk of mental health conditions developing. With half of all mental health conditions occurring before the age of 14, and with the majority of young people spending a large proportion of their time in learning settings, early learning services and schools should be viewed as invaluable settings for mental health and wellbeing initiatives. Future research is needed to understand the specific experiences of younger aged children in early learning settings, and experiences of specific subgroups. The findings of this review can be used to inform mental health initiatives within learning settings, and support implementation and evaluation of such initiatives.

# Background

## Mental health of young Australians

### Half of all mental health conditions will emerge by the age of 14 years (1)

Be You describes mental health as existing on a continuum; where an individual could be thriving and flourishing, or in contrast, experiencing a mental health condition and associated difficulties that interfere with their everyday life. (2) Over a lifetime, an individual is likely to experience different phases of the continuum. The goal of mental health promotion is to maximise the time individuals spend flourishing, in the positive end of the continuum, and to minimise and prevent the time spent in the negative, poor mental health end of the continuum. (3)

Mental health conditions are characterised by symptoms and behaviours that would place an individual in the negative end of the continuum over a period of time. Mental health conditions are very common and impose a large burden for individuals, families and communities throughout Australia (4). The initial signs of mental health conditions are often first seen in early childhood, and it is now known that of all mental health conditions, half will have emerged by the age of 14. (1) Therefore, early life is a critical life period for developing competencies and skills that can support and enable positive mental health.

The underlying risk and protective factors that contribute to an individual's mental health status are broad and varied. For example, while there are known genetic and biological mechanisms that increase an individual's likelihood of developing depression, there are also known environmental and social triggers that can directly cause the onset of mental health conditions. (5) Risk and protective factors are known to span child, family, school, social and other levels in people's lives. (6-8) At the individual child level, low self-esteem, negative thinking patterns, and unhealthy and risky behaviours are known risk factors, whereas strong social and emotional skills and positive coping style protect mental health. Family level risk factors include mental health conditions existing among other family members, whereas supportive parenting protects mental health. A positive school climate that fosters connectedness and provides a safe environment can protect mental health, whereas bullying and academic challenges can increases an individual's risk of poor mental health. Socioeconomic disadvantage can increase an individual's risk of mental health conditions, and strong cultural identify and community networks can protect an individual's mental health. Life events such as adverse childhood experiences also contribute to mental health outcomes later in life. Understanding the breadth and variation in underlying driving factors informs the development of activities and initiatives that can best support and promote positive mental health.

Such variation would suggest that any initiative that aims to protect and promote children and young people's mental health must account for the broad and varied factors implicated in mental health outcomes. It is now widely accepted that activities that aim to build individual level competencies (e.g. resilience) can be greatly enhanced when they are combined with an environment and community that also promotes and encourages positive mental health and wellbeing (e.g. strong, supportive partnerships). (9)

There are also known specific sub-populations which experience exacerbated risks and additional barriers to mental health support, therefore facing increased risk of developing mental health conditions. Australian Indigenous populations experience disproportionate rates of chronic disease and premature mortality, and this increased risk is also reflected in mental health conditions. High levels of psychological distress have been reported in one-third of Indigenous young people – twice the rate among non-Indigenous Australians. (10, 11) Other population groups that experience significant barriers to mental healthcare include culturally and linguistically diverse populations (12), individuals who identify as lesbian, gay, bisexual, transgender,

queer, or intersex (13), and rural and remote dwelling children and young people. (14) Understanding the unique needs of such sub-populations is critical in providing mental health promotion that will benefit all individuals.

# Child and youth development

## Childhood and adolescence are characterised by rapid developmental, biological, social and other changes that can significantly impact upon health later in life.

The changes occurring during childhood and adolescence are likely to be the most significant of any life period. While the physical development during these years plays an important and obvious role in future outcomes, the combination with socio-emotional and cognitive development make this life phase of critical importance for mental health. It has been suggested that developmental theories and knowledge are critical in understanding the mental health of children and young people. (15) This is largely due to the developmental differences that naturally occur between individuals, and the subsequent effect this has on experiences of risk for mental health. Initiatives that are designed to support positive mental health are unlikely to successfully prevent risk or promote protective factors if they do not account for developmental needs and individual differences. (16)

Overall, it is widely accepted that the developmental changes during childhood and adolescence offer an unparalleled opportunity to promote positive mental health and prevent mental health problems that can influence later health outcomes. (15)

# Schools and early learning services

## The education setting offers opportunities to develop positive mental health that can continue for a lifetime.

Schools and early learning services are promising settings for supporting positive mental health and wellbeing among children and young people. Children and young people spend most of their early life in education settings. Many of the skills and competencies learnt during school and early education can shape their development and future mental health outcomes. (17)

The existing structure of an education setting provides an unparalleled opportunity to embed activities across the curriculum, in addition to school activities and programs and through school leadership and policies. The members of a learning community extend far beyond children and young people, so there is also potential to influence mental health throughout the wider community. (18)

Educators play a critical role in children and young people's development. They are uniquely placed to first identify behaviours or symptoms that could indicate a child requires additional mental health support. Such recognition can initiate quick responses, and enable early intervention before symptoms develop further into a mental health condition. Educators can actively work to reduce stigma associated with mental health, and normalise and encourage help-seeking. Educators are ideally placed to cultivate a learning community that promotes positive mental wellbeing including through role-modelling positive wellbeing practices and respectful relationships.

However, there is a plethora of programs, activities and approaches all designed to support mental health and wellbeing of young people, which can be overwhelming for learning communities to implement and execute. There is also wide variation in the exact definition and characteristics of a mentally healthy learning community, and the ideal goals and objectives for learning communities to adopt. Providing clarity on such approaches is an important step towards strengthening mental health promotion in learning settings.

# Mentally healthy learning communities

## A child or young person's ability to flourish can be greatly enhanced by a supportive, positive, mentally healthy community.

A mentally healthy learning community understands what mental health is and why it is important for children and young people. Building a mentally healthy learning community is thought to be crucial in enabling children and young people to achieve their best possible mental health now, and later in life. In other words, a child or young person's ability to flourish can be greatly enhanced by a supportive, positive community, making it a worthy goal for educators, schools and early learning services.

Building a mentally healthy learning community offers multiple benefits. Individuals within the community are likely to be more regularly exposed to mental health promoting activities and experience the benefits. Communities that foster and cultivate mental health promotion can normalise and decrease stigma surrounding mental health, therefore supporting help-seeking behaviours. Focusing on positive mental health in schools and early learning services can reverberate beyond the child and young person population, and is likely to also benefit the wider network of families, caregivers, educators, school leadership and other community members. Prevention can occur through strengthening protective factors that help individuals to cope when mental health problems arise. The learning setting also provides a unique opportunity to first identify children or young people experiencing mental health challenges and to implement support to prevent symptoms further developing into a mental health condition. The child and young person's experiences in the learning setting can contribute to their positive development, which may further prevent mental health problems later in life.

# Aims of this review

The opportunity to support children and young people's mental health by creating mentally healthy learning communities is a worthy endeavour. This review aimed to identify and summarise the latest research evidence from Australia and other countries of similar economic profile, to identify the key characteristics of a mentally healthy learning community. It also aimed to summarise the strategies implemented in early learning services and schools that have been effective in contributing to positive mental health among children and young people.

Specifically, this review aimed to answer the following two questions:

1. What are the key attributes of a mentally healthy learning community?
2. What strategies have been effective in contributing to positive mental health and wellbeing in children and young people within early learning and school settings?

The findings of this review will support educators in the implementation of Be You, and ultimately support schools and early learning services to build healthy learning communities.

# Methods

## Peer-reviewed literature

### Question 1: What are the key attributes of a mentally healthy learning community?

The search strategy was designed to identify all possible systematic reviews that provided evidence about the key attributes of mentally healthy learning communities. Learning communities were defined as early education and school settings. To be eligible for this review, the systematic reviews had to report on the characteristics of the learning community that were proposed to be associated with the mental health of children or young people. Peer-reviewed systematic reviews published in the last five years which reported on studies from Australia, New Zealand, Canada, the UK and the US were eligible for inclusion.

EBSCOHost was used to search the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Global Health, Health Source: Nursing and Academic Edition, MEDLINE, PsycARTICLES and PsycINFO.

The following search terms were used: (mental health OR wellbeing OR mental disorder OR positive mental health OR psychosocial wellbeing OR social and emotional learning) AND (school OR early learning service OR day care OR child care OR school climate OR school environment OR learning service*) AND (systematic review OR meta-analysis).

All keywords were limited to Title. The following limits were also applied: review articles, English language, published after January 2014, aged 18 years and younger. The reference lists of all identified systematic reviews were assessed to identify any further eligible studies. Inclusion and exclusion criteria are reported in Table 1.

**Table 1. Inclusion and exclusion criteria for Q1**

| Inclusion | Exclusion |
|---|---|
| <ul><li>systematic review or meta-analysis</li><li>published since 2014, inclusive</li><li>settings include early learning services and schools (both primary and secondary)</li><li>reported characteristics of learning community associated with children and/or young people's (18 yrs or younger) mental health</li><li>studies based in Australia, NZ, Canada, UK and US</li><li>peer-reviewed</li><li>published in English language.</li></ul> | <ul><li>experimental or empirical observation studies</li><li>tertiary settings</li><li>review protocols</li><li>subgroups such as young people at high risk or living with chronic disease</li><li>specific intervention focus (e.g. physical activity, gardening, mental health services).</li><li></li></ul> |

## Question 2. What strategies have been effective in contributing to positive mental health and wellbeing in children and young people within early learning and school settings?

The search strategy was designed to identify all possible systematic reviews that provided evidence about strategies that have been effective in enabling positive mental health and wellbeing in children and young people in learning settings. Improved mental health and wellbeing included preventing mental health issues (e.g. depressive or anxiety related symptoms), promoting positive mental health (e.g. resilience, supportive relationships, self-esteem), early identification of children or young people at risk for mental health problems, and supportive and effective management of individuals with mental health conditions. The review also looked at study outcomes including reduction in absenteeism, bullying and school refusal, increased participation in school or early learning service activities, improved social networks, and increased confidence in educators to promote positive mental health and wellbeing. For young children, mental health and wellbeing is often parent or teacher reported. Outcomes typically relate to social and emotional competence, problem behaviours, and early learning outcomes, given that symptoms of mental health conditions may present differently compared to in older aged children.

Peer-reviewed systematic reviews that were published in the last five years, and reported on studies from Australia, New Zealand, Canada, the UK and the US were eligible for inclusion in this evidence review. Full inclusion and exclusion criteria are reported in Table 2.

EBSCOHost was used to search the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Global Health, Health Source: Nursing and Academic Edition, MEDLINE, PsycARTICLES and PsycINFO.

The following search terms were used: (mental health OR wellbeing OR mental disorder OR positive mental health OR psychosocial wellbeing OR social and emotional learning OR depress* OR anxiety OR resilience OR relationship* OR self-esteem OR at risk) AND (school OR early learning service OR day care OR child care OR school climate OR school environment OR learning service*) AND (intervention OR strategy OR trial OR program OR approach OR activit*) AND (systematic review OR meta-analysis).

In addition, the systematic reviews identified in Question 1 were reassessed for eligibility for Question 2.

# Included studies

For Question 1, a total of 44 systematic reviews emerged from the initial search strategy. Titles and abstracts were screened to determine whether studies could contribute to understandings of key attributes of mentally healthy communities and 25 full-text reviews were assessed for eligibility. Articles that examined low- and middle-income countries, specific sub-populations (e.g. children with chronic diseases), and review protocols were excluded from full text screening. A further nine systematic reviews were excluded, with a total of 16 systematic reviews identified as eligible for inclusion in the review.

For Question 2, a total of 25 systematic reviews emerged from the initial search strategy, and an additional 8 reviews were identified through the search strategy findings from Question 1. Titles and abstracts were screened to determine whether studies examined effective strategies for supporting positive mental health and wellbeing in children and young people in learning settings. A total of 25 full-text reviews were assessed for eligibility. Articles that examined communities other than schools or early learning settings, or that had a specific intervention focus such as primary care service provision or obesity prevention programs were excluded. A total of 23 systematic reviews were identified as eligible for inclusion in the review.

## Table 2. Inclusion and exclusion criteria for Q2

| Inclusion | Exclusion |
|---|---|
| • systematic review or meta-analysis<br>• published since 2014, inclusive<br>• settings include early learning services and schools (both primary and secondary)<br>• reported effective strategies (programs, activities, approaches) that demonstrated improvement in mental health and wellbeing<br>• strategies delivered across a whole learning setting<br>• studies based in Australia, New Zealand, Canada, the UK and the US<br>• peer reviewed<br>• published in English language. | • experimental or empirical observation studies<br>• tertiary settings<br>• review protocols<br>• subgroups such as young people at high risk or living with chronic disease<br>• reporting strategies that were designed for purposes other than promoting positive mental health and wellbeing. |

# Findings

## Question 1: What are the key attributes of a mentally healthy learning community?

### Overall

Of the 16 reviewed studies, all focused on school communities except for one, which focused on early childhood education and care centres. (19) Mental health was universally defined as a continuum, whereby both positive protective factors such as pro-social relationships, resilience and emotional awareness, were considered core objectives for learning communities, alongside reducing the risk of mental health conditions and underlying symptoms. The key attribute of mentally healthy learning communities emerged from the background and rationale sections of the reviews, in which the characteristics of such communities were detailed. Fourteen systematic reviews did not specify targeted settings, although all assessed high-income countries. One systematic review specifically focused on interventions based in the US and one review examined interventions conducted in the UK. (20, 21)

Table 3 describes the key attributes and proposed mechanisms of change emerging from the systematic reviews identified in the search strategy. Further, each key attribute is described and supporting evidence summarised below. Appendix 1 details the individual findings and study characteristics of each included systematic review, in addition to the main findings and key attributes that emerged from findings.

### Key attributes

#### The whole learning community recognises and acts to support the mental health of young people

The identified reviews found that educational settings were unique and unparalleled settings for mental health support for children and young people. (19-31) Thus, a key characteristic of a mentally healthy learning community was the recognition and explicit action to provide an environment that supports mental health and wellbeing. The learning community can leverage on the school or early learning service as an existing, natural learning environment for children and young people, where there are opportunities to enhance wellbeing. (22, 23) There is also the opportunity to reach a large proportion of children and young people, and the potential to leverage existing infrastructure and networks to embed mental health support. (31) Education settings can promote civil, political, cultural and other rights through which mental health can be supported. (27) Schools and early learning settings can also normalise mental health and reduce stigma for children and young people to support help-seeking behaviours and general mental health and wellbeing efforts. (20)

#### Multiple levels of mental health promotion and prevention are incorporated in the learning community

A consistent key attribute that was recognised in the literature was the embedding of mental health support for children and young people across the entire learning community, and across all levels of the mental health continuum. This included universal prevention, whereby all children and young people receive opportunities to develop skills and competencies to promote positive mental health. (20, 21, 28, 32, 33) Such efforts also work to normalise mental health activities and reduce stigma. Targeted strategies included identifying children and young people at heightened risk of mental health issues and providing treatment for those with diagnosed mental health conditions. (21, 23, 30) Adopting a continuum definition

of mental health emerged as a key factor that supported the incorporation of multiple levels of mental health promotion and prevention across the learning community.

## Educators are equipped to support the mental health of young people

Mental health literacy among educators was identified as a key factor in supporting mental health outcomes among children and young people (20, 29). Educators play a critical role in the day-to-day experiences of children and young people in learning settings and are ideally positioned to integrate mental health promotion into school and early learning service activities. Thus, mentally healthy learning communities are likely to have educators who have a strong understanding of mental health, who are equipped to provide appropriate mental health support for young people, and who can recognise when mental health problems occur and take action (23, 25). The review also found that educators who can recognise the unique needs of sub-population groups that are at increased risk of mental health issues, and who can respond appropriately, are more likely to enable help-seeking and other support behaviours. The findings suggest that educators with improved knowledge and awareness can reduce stigma around mental health issues, and this can improve the mental health of young people and support them in adopting help-seeking behaviours. (20, 29)

## Social and emotional competence is fostered among young people

Social and emotional competence refers to the ability to regulate emotions and behaviour, communicate and interact with others, problem solve and other skills that support interpersonal interactions and emotional health. (34) Such skills emerged as key factors that enabled children and young people to experience current and future positive mental health. (19, 27, 28) Learning communities that foster social and emotional learning skills in children and young people are more likely to provide them with the skills to protect against the development of mental health issues, and to equip children and young people with the tools to cope with such problems when they inevitably occur. (35) Children and young people with social and emotional competency are more likely to experience improved peer, school and family relationships and support networks that are protective factors for positive mental health. (33) The review shows that mentally healthy learning communities foster social and emotional competence among children and young people.

## The learning community provides a safe environment where all individuals have opportunities to develop positive mental health

A key attribute of mentally healthy learning communities recognised in the literature was that children and young people were safe, secure and respected within the community. (22, 27) In particular, there was an emphasis on the respect towards children and young people's developmental, cultural and other unique needs. (27) Critically, a learning community was more likely to be mentally healthy where young people were free from discrimination, and all individuals – including at-risk marginalised groups, – were able to feel safe and supported. (22) A key factor associated with mentally healthy learning communities was that diversity was respected and valued, and the learning community was inclusive for children and young people to execute personal agency and freedom. (27) The findings suggest that individuals who feel safe and supported are more likely to experience positive mental health outcomes, and seek support when needed.

## The learning community is connected: students, educators, families and other community members are contributors

The connectedness of a learning community is known to contribute to the mental health of children and young people. (22, 27) In particular, the relationships between educators, children and young people, families and schools or early learning services, and learning community leadership can be strengthened to support the mental health outcomes of children and young people. (19, 22, 33) Such relationships can ensure mental health promotion is co-ordinated and consistent across all children and young people's interactions and experiences (24). Connectedness within schools and early learning services is also evident in the acknowledgement and valuing of children and young people's voices and experiences of mental

health. (22, 25) Mentally healthy learning communities allow all members to contribute to mental health activities. Connectedness is also evident in resources and partnerships, which can collectively support the mental health of children and young people. (27, 32)

## Table 3. Key attributes of mentally healthy learning communities and proposed mechanisms

| Key attribute | Proposed mechanism for supporting positive mental health |
|---|---|
| The whole learning community recognises and acts to support the mental health of young people | • Education context can promote civil, political, cultural and other rights through which mental health can be supported<br>• Learning communities are naturalistic settings in which large proportions of young people can be reached, and pre-existing structures, values and learning processes can be leveraged to support mental health. |
| Multiple levels of mental health promotion are incorporated in the learning community | • Universal strategies allow all students opportunity to develop skills and competencies to promote positive mental health<br>• Targeted strategies can identify students at heightened risk of mental health problems and provide treatment for those with mental health conditions<br>• Mental health promotion is normalised through initiatives being included in classrooms, school policies, interactions between staff, and other systems. |
| Educators have mental health literacy | • Educators who have improved mental health literacy can support young people's mental health through recognising symptoms and providing effective care<br>• Educators with improved knowledge and awareness can reduce stigma around mental health issues and this can improve the mental health of young people and support help-seeking behaviours. |
| The learning community fosters social and emotional competence among children and young people | • Enhanced social and emotional wellbeing through stronger individual level skill sets<br>• Improved peer, school and family relationships and support networks<br>• Tools available for use when adversity or other risk factors arise. |
| The learning community is safe and supportive for all | • All children and young people feel safe and supported in the learning community, and there is respect towards developmental, cultural and other needs<br>• Marginalised, at-risk groups are able to feel safe and supported in the learning environment<br>• Diversity is respected and valued and the learning community is inclusive to allow members to feel safe, secure and to promote agency and personal freedom. |
| Connectedness is evident | • School and early learning service connectedness is evident through the acknowledgement and valuing of children and young people's voices<br>• Educators aware of mental health issues can actively work to reduce stigma by encouraging and supporting children and young people to seek mental health support<br>• Strong partnerships between personnel and services across the learning system allows collective support for children and young people's mental health, including appropriate action and subsequent support if adverse events or crises occur in the learning community. |

# Question 2: What strategies have been effective in contributing to positive mental health and wellbeing in children and young people within early learning and school settings?

## Overall

Of the included systematic reviews, most examined schools broadly, four examined primary schools only (33, 36-38), one examined secondary schools (39) and one systematic review examined early learning services (19). As per Question 1, mental health was universally defined as a continuum, whereby both positive protective factors such as pro-social relationships, resilience and emotional awareness were considered core objectives for learning communities, alongside reducing the risk of mental disorders and underlying symptoms. Most systematic reviews examined multi-level or multi-component interventions that addressed universal, selective and targeted prevention strategies. Three systematic reviews focused on one intervention level in particular (e.g. identifying at-risk students). (23, 26, 30) Meta-analysis was possible in nine studies. (19, 24, 26, 35, 36, 38, 40-42) One systematic review specifically focused on interventions based in the US (20) and one review examined interventions conducted in the UK. (21)

Effective strategies were derived from the findings of these systematic review or meta-analyses. Table 4 describes the identified strategies and proposed mechanisms of change. Each effective strategy is and the supporting evidence is also summarised below. Appendix Table 2 reports on the individual findings and study characteristics of each included systematic reviews in addition to the outcome of interest, main findings and the effective strategies that emerged from the findings.

Outcomes of interest were categorised into immediate (short-term, proximal intervention targets) and long term (future distal targets). Common immediate outcomes of interest were: improving identification of young people with mental health risks, knowledge, attitudes and helping behaviours of educators, mindfulness practice, and social and emotional skills. Long-term outcomes commonly examined were; depression and anxiety, academic performance, social and emotional development, and overall mental health and wellbeing.

## Effective strategies

### Whole-community approach to mental health and wellbeing

Numerous systematic reviews support the implementation of mental health and wellbeing efforts through a whole community, or a whole-school approach. (24, 27, 28, 31) This involves mental health efforts being embedded through the entire learning community in policies, curriculum, engaged staff and families, and overall care for young people. Efforts are proposed to be both explicit (e.g. curriculum for mental health and wellbeing skills) as well as implicit, through interactions or role modelling of educators. The whole-community approach is more likely to achieve sustained mental health efforts as opposed to stand alone, one-off programs or activities that often do not continue to impact beyond the program end date. (33)

### Mental health literacy programs for educators

As established, educators are key people in the mental health experiences of children and young people in the learning environment. The evidence suggests improving the mental health literacy of educators can lead to improved knowledge, attitudes, and reduced stigma for children and young people. (29, 36, 39) Further, educators are ideally placed to integrate positive mental health practice into daily school and early learning setting life, therefore exposing children and young people to increased opportunities to build their own positive mental health. (23, 29, 42) Critically, mental health literacy programs that are flexible to

educators' needs and capacities, and are accessible in terms of content and adaptability, increase the likelihood of favourable outcomes. (39)

## Universal social and emotional learning programs within the curriculum

Universal social and emotional learning programs were found to result in positive mental health outcomes for children and young people. (19, 24, 27, 28, 35) Individuals who can understand and monitor their emotions are more likely to demonstrate empathy and develop positive relationships, which support positive mental health and wellbeing. Universally-delivered programs can be integrated into existing school or early learning service structures and can normalise mental health and wellbeing activities. The findings suggest that social and emotional learning program content can improved mental health outcomes. As previously discussed, embedding programs within the existing curriculum supports their sustainability, and ensures dedicated class time for skill-building. Specific resiliency and mindfulness-based programs were also shown to have a positive impact upon children and young people's mental health, and can also be considered as effective strategies for learning communities to implement. (32, 33, 42)

## Universal cognitive behavioural programs within the curriculum

Cognitive behavioural therapy programs typically involve the development of emotional awareness and regulation skills to counter thoughts and behaviours that can trigger mental health problems. The evidence suggests that such programs are effective in supporting the development of skills and competencies that may offset children and young people's future risk of mental health problems, including anxiety and depressive symptoms. (21, 31, 38, 43, 44) Universally-delivered cognitive behavioural programs can support children and young people to develop skills to cope with experiences that may precede mental health problems. (40) As identified, embedding such programs within the curriculum provides a structure for dedicated mental health promotion, and increases the likelihood of sustained efforts within the learning system. More frequent sessions, as opposed to those of longer duration, appeared to be more beneficial to mental health outcomes. (36)

## Monitoring the mental health of children and young people

Identifying children and young people with mental health problems, and monitoring the student or early learning service populations in terms of mental health status, was identified as an effective strategy for providing targeted support. (21, 28, 30) Monitoring children and young people's mental health can occur through questionnaires and other measurement tools, and can help identify those at-risk or in need of additional mental health support. Equipping educators to recognise a children and young people with mental health concerns and to take appropriate action can support the provision of, and access to mental health support. (29) Learning settings are also equipped with the tools to recognise age- and developmental- specific symptoms of mental health conditions. For example, older aged adolescents may respond to emotional measurement tools, however symptoms among younger children may present as behavioural problems and may be more accurately identified by educators as opposed to self-report methods.

## Suporting physical health can provide benefits for the mental health of children and young people

There is some evidence to suggest that physical health programs which target health behaviours such as physical activity, sleep, and diet also have an impact on improving mental health among children and young people. (28, 37) In particular, aligning efforts for dual physical and mental health goals can be a pragmatic use of resources, and improved health behaviours have been associated with improved mental health outcomes. Such strategies have been relatively under-investigated in terms of mental health outcomes, in favour of physical health outcomes. In addition, some systematic reviews examining the mental health of children and young people have excluded interventions that targeted physical health behaviours. Future research is needed to extrapolate the potential benefits of this strategy, however preliminary findings appear promising.

**Table 4. Effective strategies for contributing to positive mental health and wellbeing in children and young people in learning settings**

| Key strategy | Proposed mechanism for mental health |
|---|---|
| Whole-community approach to mental health and wellbeing | <ul><li>Mental health efforts embedded throughout the entire learning community can support student mental health through policies, curriculum, engaged staff and families, and overall care and support for children and young people, thus normalising mental health activities</li><li>A whole-community approach is more likely to be sustained with the learning system, compared to one-off, standalone programs or activities.</li></ul> |
| Mental health literacy programs for educators | <ul><li>Educators are ideally placed to integrate positive mental health practice into daily school and early learning setting life, therefore exposing children and young people to increased opportunities to build their own positive mental health</li><li>Equipping educators with mental health literacy is likely to transfer to greater and more appropriate support for children and young people</li><li>Mental health literacy programs that are flexible to educators' needs and capacities, and are accessible in terms of content and adaptability, increase the likelihood of translation to everyday learning settings.</li></ul> |
| Universal social and emotional learning programs within the curriculum | <ul><li>Children and young people who can understand and monitor their emotions are more likely to demonstrate empathy and develop positive relationships, which supports positive mental health and wellbeing</li><li>Universally-delivered programs can be integrated into existing education settings and can normalise mental health and wellbeing activities. Evidence supports social and emotional learning program content, for improved mental health outcomes.</li><li>Embedding social and emotional learning programs within the existing curriculum supports the sustainability of such programs, and ensures dedicated class time for skill-building.</li></ul> |

| Universal cognitive behavioural programs within the curriculum | • Cognitive behavioural therapy programs typically involve the development of emotional awareness and regulation skills to counter thoughts and behaviours that can trigger mental health problems<br>• Universally-delivered cognitive behavioural programs can support all children and young people to develop skills to help them cope with experiences that may precede mental health problems<br>• Embedding such programs within the curriculum provides an existing structure for dedicated mental health promotion, and increases the likelihood of sustained efforts within the learning system. |
|---|---|
| Monitoring the mental health of children and young people through measurement and educators' nomination | • Monitoring children and young people's mental health can occur through questionnaire and other measurement tools, and can help identify those at risk or in need of additional mental health support<br>• Equipping educators to recognise children and young people with mental health concerns and to take appropriate action can support the provision of, and access to mental health support. |
| Suporting physical health can provide benefits for the mental health of children and young people | • There is some evidence that physical health programs, which target health behaviours such as physical activity, sleep, and diet, also have an impact on improving mental health among children and young people<br>• in particular, aligning efforts for dual physical and mental health goals can be a pragmatic use of resources, and improved health behaviours has been associated with improved mental health outcomes. |

# Gaps in the evidence

The review identified a number of gaps in the evidence to date. Firstly, while the search strategy was designed to identify systematic reviews examining both schools and early learning services, there was a notable gap in research involving the pre-schooling years. The most consistently studied learning communities were primary and secondary schools. This may in part be explained by the historical focus on childhood and adolescence as critical periods for emotional and other development in relation to mental health. There is, however, a growing evidence body on the importance of early years for development and social emotional learning that can impact upon future mental health. It is expected that such evolving evidence will inform the future development of key attributes specific to the early years, and effective strategies for this younger age group.

In addition to the focus on children and adolescent populations, there was a trend in the research studies to focus primarily on general populations, as opposed to specific subgroups. There are known vulnerabilities and specific barriers faced by sub-population groups, including reduced access to culturally appropriate mental health services for vulnerable groups. There was a notable lack of evidence about how these vulnerabilities impact on the key attributes of mentally healthy learning communities and effective strategies for mental health among young people within such groups. Some systematic reviews demonstrated evidence for overall interventions and mental health activities to show appropriateness for all groups, across gender, ethnicity and other demographics. However, further research is needed to determine how to best support the unique needs of specific sub-groups of children and young people in the learning community.

Despite general consensus that mental health and wellbeing is best supported in learning communities through a whole-learning community approach, the intervention studies examined within systematic reviews predominately evaluated stand-alone programs, with defined session number and duration. The large majority of such interventions evaluated individual-level skills, through which positive mental health and wellbeing could be enabled. While such programs have demonstrated benefits for children and young people's mental health and wellbeing, there was a gap in studies evaluating whole-school, community approaches that incorporated multiple components across multiple levels. In particular, there was a gap in evidence relating to the successful evaluation of such multi-level interventions, for example, what impact policy changes to integrate mental health promotion had upon the mental health outcomes for children and young people. Of the evaluations of stand-alone programs, very few considered outcomes measures beyond the program end date. Therefore, the review found that further research was needed into the longer-term impact of such interventions, as well into the measurement methods of multi-component initiatives.

# Discussion of findings

The opportunity for learning communities to integrate mental health and wellbeing efforts into school and early learning service operations is promising. While childhood and adolescence are known periods of increased risk for the development of mental health conditions, evidence suggests that mental health promotion during this age period can both foster protective factors, and reduce the risk of such conditions developing. With half of all mental health conditions emerging before the age of 14 years, and with the vast majority of young people spending a large proportion of their time in learning settings, early learning services and schools should be viewed as invaluable settings for mental health and wellbeing initiatives. The review demonstrated gaps in the evidence to date relating to younger-aged children in early learning settings, sub-population groups with unique mental health needs, and implementation and evaluation of whole-school approaches.

Unsurprisingly, there was overlap between the key attributes of a mentally healthy learning community and effective strategies for supporting mental health and wellbeing of children and young people. In particular, there is strong evidence to support adopting a definition of mental health as a continuum, whereby promotion, prevention and management activities across all levels of a learning system are of great importance. The role of educators in mental health support for children and young people has been consistently emphasised. This includes educators acting as key agents in the delivery of classroom and curriculum content, as role models for respectful and positive relationships, reducing stigma through normalising mental health activities. Educators are also key in identifying children and young people experiencing mental health problems and providing of appropriate support.

The potential to integrate social and emotional learning, cognitive behavioural therapy-informed strategies, resiliency and mindfulness into the school curricula structure is widely accepted as a promising and worthy investment. Overall it has been widely reported that the learning environment should be a place in which children and young people feel safe, in which they are free from prejudice and discrimination, and in which diversity is respected and celebrated. Integration of such attributes and strategies in learning communities is recommended alongside active efforts to reduce stigma surrounding mental health, which ultimately supports help-seeking behaviours and support for young people's mental health.

This review was limited in that the key attributes and effective strategies were extracted from existing systematic reviews through narrative assessment of findings and themes. Due to the lack of uniformity in studies within systematic reviews, it was not possible to combine findings into a broader meta-analysis. , There were a broad range of study designs, settings and study samples to support key attributes and effective strategies, which meant it was also not possible to grade the quality of the evidence quality. For example, a large number of social and emotional learning programs were evaluated in various systematic reviews, with differences in session frequency, duration, delivery, and other key implementation factors. Thus, while it was possible to identify the effectiveness overall of such programs, it was not possible to grade the quality of evidence due to the great variation in study elements and difficulties in drawing comparisons across studies.

The review showed that the research evidence about mentally healthy communities is continuously evolving and the findings here are likely to be strengthened with the development of novel evaluation and implementation strategies. Similar trajectories of research can be observed in the broader fields of public health, such as in childhood obesity prevention where schools are harnessed as settings in which young people can be supported to engage in health behaviours. Lessons learnt from the wider public health fields, and in multi-component interventions, will undoubtedly support the future development of new methods for researching the mental health promotion efforts in learning settings.

# Conclusion

This systematic review of the latest published evidence established the key attributes of mentally healthy learning communities, and identified effective strategies that contribute to the positive mental health and wellbeing of children and young people within learning communities. Overall, it found characteristics of mentally healthy learning communities include: integrating mental health and wellbeing into the learning environment; fostering social and emotional competence and mental health literacy among children, young people and educators; safe environments free from discrimination and stigma; and connectedness, Effective strategies to foster positive mental health in children and young people include: whole-community approaches to mental health and wellbeing; mental health literacy programs for educators; social and emotional learning; cognitive behavioural therapy-informed curriculum programs for children and young people; monitoring of children and young people's mental health; and supporting physical health and health behaviours. Future research is needed to understand the specific experiences of early learning settings, and of specific population subgroups. The findings of this review can be used to inform the development of further mental health initiatives within learning settings, and to support the implementation and evaluation of such initiatives.

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# Appendices

## Appendix 1. Systematic review findings for key attributes of mentally healthy learning communities

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| Aldridge and McChesney (2018) | Secondary schools | • School focus on both diagnosing and treating individual cases of mental illness, but also invest in mental health of students regardless of their pre-existing state of mental health<br><br>• Improved school safety promotes learning and healthy development; poor levels of school safety jeopardise students' mental wellbeing.<br><br>• Positive student-teacher and student-student relationships are associated with improved mental health and wellbeing, including improved self-esteem and overall school engagement<br><br>• School connectedness (students belonging and being cared for at school) is associated with student health<br><br>• Support at different levels (classroom, school, home, community) facilitates the promotion of young people's mental health<br><br>• Strengthened mental health services across sectors (health, education, social care, criminal justice) provided more cohesive mental health promotion in schools | • Focus on both promotion of positive mental health and preventing mental disorders and underlying risk behaviours<br><br>• Provides environment for students (particularly marginalised groups and groups at risk of disengagement) in which they feel safe and supported<br><br>• School connectedness is evident through acknowledgement and value of student voices<br><br>• Support is provided at classroom level and beyond (home, community, society)<br><br>• Focus on strengthening partnerships and support services for student mental health<br><br>• Mental health initiatives are longer in duration, and incorporate student voice |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Promotion of positive mental health (rather than preventing mental illness) that were longer in duration (one year or longer) was supportive of students' mental health<br>• Students who feel marginalised or unsafe at school may bond over risk behaviours, through which they achieve identity, bonding, agency and protection<br>• Failure to acknowledge student voices can increase engagement in risk behaviours<br>• Acknowledging and responding appropriately to students mental health improves the school climate. | |
| Anderson JK. et al. (2019) | Schools | • Schools are well positioned to play significant role in early identification of mental illness<br>• Systematic school-based approaches detect more cases than less formal processes<br>• Students identified in school settings are more likely to receive parental and school support, and referral and access to support services<br>• Students identified at school achieve better long-term mental health outcomes than young people identified in community healthcare settings<br>• Teachers who do not feel well equipped to perform detection can lead to under-detection of early symptoms of disorders | • Schools that include systematic detection of at-risk students are more likely to have greater proportion of students seeking and receiving help<br>• Building capacity among educators and ensuring they are equipped to deal with mental health concerns |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| Arora, PG. et al. (2019) | Schools | • Schools as setting for delivery of mental health interventions permits increased access to teachers and families as sources of inputs and targets of intervention<br>• Opportunity for clinicians to observe problems in naturalistic setting<br>• Schools can reduce barriers with accessing mental health services<br>• Need for schools to adapt and implement mental health services as students with depression remain under-represented in services<br>• A multi-tiered system of support includes preventing initial concerns, selective prevention, and treatment of young people with high mental health needs, and draws heavily on public health and prevention science models. Research supports using this mode in addressing academic and behavioural concerns among youth in schools | • Schools that recognise teachers and families as sources of input and targets of interventions<br>• Schools recognised and leveraged as naturalistic setting for young people, harnessed for mental health promotion<br>• Research supports multi-tiered system of support as a model of service delivery in addressing concerns among youth |
| Blewitt, C. et al. (2018) | Early childhood education setting (2 to 6 years) | • Building social and emotional competence in early childhood can influence long term mental health and wellbeing<br>• An early childhood education setting can provide opportunities to equip children with skills to understand and regulate emotion, attention, and behaviour, and form prosocial relationships. | • A setting which promotes emotional competence, in terms of children who can understand and regulate their emotions, and show empathy, build friendships, and other prosocial relationships<br>• Allowing children opportunity to practice and integrate learned behaviours. Integration of families might further enhance opportunities for children to develop skills |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Key competencies include social competence, emotional competence, problem behaviours and emotions, behavioural self-regulation | • Being sensitive to age and developmental skills and abilities<br>• Integrates social and emotional learning into everyday practices and core pedagogy. Includes implicit and explicit models |
| Cheney, G. et al. (2014) | Schools | • Early intervention to improve mental health has potential to benefit individuals, families and societies<br>• There is a risk of interventions being offered too late, and adverse effects associated with disorders may have become entrenched<br>• Traditional clinical interventions are not accessible to all students, hence the need for other modes of delivery<br>• There is economic justification for investing resources in children and mental health services long term<br>• Schools offer opportunity to reach a wide range of young people<br>• Teachers are well placed to recognise children with difficulties, and the impact on their wellbeing<br>• School-based programs can reduce barriers to accessing care<br>• Schools are a place of learning, therefore this may facilitate the acquisition of mental health skills<br>• Group-based delivery is available in schools; this may be less threatening context, similar to school lives<br>• Schools do not lend themselves to 'gold-standard' RCT | • Students can experience reduced barriers to seeking mental health support through communities that intervene early, leverage on group delivery (thus less threatening context)<br>• Schools can leverage on being a place of learning, to provide skills to young people for mental health<br>• Schools can accept uniqueness in terms of appropriateness of particular program implementation (e.g. RCTs may not be appropriate) |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Potential for improvement has emerged from targeted programs, whole-school approaches and collaboration between children, families and staff. | |
| Dray, J. et al. (2017) | Schools | • Strengthening resilience reduces mental health problems in young people<br>• High levels of protective factors (strong attachment to family, high levels of pro-social behaviour, social skills competence, strong moral beliefs, positive personal disposition) is associated with lower levels of anxiety, depressive symptoms, stress in adolescents and children | • Schools can use existing resources, infrastructure and values to support the development of positive mental health and resilience<br>• Schools can foster protective factors to offset risks of mental health problems |
| Fenwick-Smith et al. (2018) | Primary schools | • Skill such as problem-solving, building and maintaining interpersonal relationships and realistic goal-setting enhance an individual's ability to live meaningfully<br>• Resilience allows students to prevent, minimise or overcome adversity and can support mental health.<br>• Improving coping skills, building healthy relationships and developing help-seeking and meaningful behaviours can enhance mental health | • Communities that build resilience and other social and emotional skills can offset some of the risks associated with mental health problems |
| Goldberg, JM. et al. (2018) | Schools | • Social and emotional skills including understanding emotions, navigating conflicts, and decision making can influence improved mental health outcomes<br>• Schools provide socialising context in which students can learn life skills | • Whole-school approach that allows continuity and consistency for skill development, school-wide, all ages and consistent across multiple contexts, assumes that social, emotional and academic skills are interdependent |

**Mentally Healthy Learning** **Communities: Supporting evidence**

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Integrating social and emotional learning into daily practice and school culture, engaging staff, reinforcing skills outside classroom, supporting parental engagement and strengthening outside agencies, yield the most successful outcomes | • Promotes skills simultaneously, to recognise and respect time pressure on staff<br>• Relationships are example of social context in which skills can be practised |
| Gronholm et al. (2018) | Schools | • Stigma can compromise accessing of mental health services in schools, therefore efforts to reduce stigma and normalise mental health initiatives are key<br>• Recognising and understanding stigma can help to ensure mental health promotion is socially acceptable for intended recipients thus improving uptake and perceived relevance<br>• School should be sensitive to concerns of at-risk students by singling them out for attention in various ways, including screening for mental health problems, and recommending services that are visible in proximity to peers and teachers<br>• Some key themes to be considered are native labelling, discriminatory reactions, concerns on confidentiality, consequences of stigma including anticipatory anxiety and restricted disclosure<br>• Some strategies to mitigate include applying alternative methods for psychological support, emphasising student choice and control, and focusing on building trust | • Recognising complicated dynamics of students in school environment whereby some students may find it stigmatising to seek mental health support in proximity to their peers, whereas others find it useful to cope with mental health problems by sharing with peers<br>• Actively work to reduce stigma to enhance student wellbeing outcomes<br>• Consider strategies to mitigate stigma including integrated student voice and control, building trust, and providing alternative methods for support |
| Iachini, AL. et al. (2015) | Schools | • Offering mental services in schools enhanced access but also helps to address barriers to learning in a natural environment | • Schools can offer continuum of services from promotion through to treatment for students with mental disorders |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Schools can use public health model whereby services from promotion of competencies for all students to intensive treatments for students with mental disorders can be offered<br><br>• Schools are particularly suitable for early interventions aimed at providing support to students demonstrating initial academic, social, emotional, or behavioural difficulties, but who have not yet met diagnostic criteria for a mental health disorder<br><br>• It is hypothesises that students in schools that support student's social and emotional needs it are then better able to engage in school and benefit from instructional strategies, therefore helping their abilities to learn and succeed academically<br><br>• Academic concerns are often the first sign and symptoms of a more complex issue for a student | • Benefits can extend beyond mental health to include academic outcomes and school attendance |
| Mackenzie, K. et al. (2018) | Schools | • Far reach and existing infrastructure can support the implementation of mental health promotion<br><br>• Whole-school approaches appear to lead to more positive outcomes<br><br>• Universal and targeted approaches can encompass a greater proportion of children | • School adopts whole-school-approach including universal and targeted strategies. |
| O'Reilly, M. et al. (2018) | Schools | • Without security and freedom provided by basic civil, political, socio-economic and cultural rights, it is difficult to maintain positive mental health, and therefore the school environment should allow these rights | • An educational context can promote basic civil, political, socio-economic and cultural rights, through which mental health risks can be reduced |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • The educational context is a natural environment in which students can build rights of agency, security, and personal freedom, all supporting development of positive mental health<br><br>• Mental health promoting schools provide a continuum of intervention programs focused on social and emotional learning, competence for all students, and actively involve all key players in school community such as students, teachers, families and others<br><br>• Mental health promotion can be achieved when it is inclusive in its approach, builds programs that are responsive to the specific school needs, reduces barriers to student learning, emphasises and provides support for systematic quality and review for improvement, engages and supports staff, respects diversity and developmental factors of young people, and co-ordinates efforts and interdisciplinary efforts within schools<br><br>• Whole-school approaches support mentally healthy learning communities. This involves mental health and wellbeing being evident in behaviour policy, curriculum, care and support for young people, and in addition to staff engagement of families<br><br>• Schools which successfully foster social and emotional skills among students can support positive mental health outcomes. Such skills include awareness, managing emotions, empathy, motivation, social competence, resilience, communication, problem-solving skills, stress management, building confidence and promoting peer relationships.<br><br>• Schools are pervasive environments in young people's lives, and can mitigate some negative impacts on mental health | • A school which provides a continuum of intervention programs and involves students, teachers, families and community can foster positive mental health<br><br>• Inclusivity, respecting diversity and responsive to unique school needs will support mental health promotion<br><br>• Mental health promotion efforts embedded throughout the school system can support student mental health through policies, curriculum, engaged staff and families, and overall care and support for young people<br><br>• Schools recognise their role as a key environment for mental health opportunities<br><br>• Schools respect diversity of students and are sensitive to developmental factors, and allow students to feel safe, secure, build agency and personal freedom<br><br>• Builds connections between resources and strengthens partnerships<br><br>• All community members are involved |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Schools can also be source of negative symptoms and therefore focusing on education context as a natural environment in which it is possible to build security, agency and personal freedom in young people<br>• A continuum of services is needed, and focus on social and emotional learning, competence for all students, actively involve young people, schools and other community members | |
| Salerno, JP. (2016) | Schools | • Reduce stigma and build mental health literacy<br>• Social isolation, reduced help-seeking and further life chances can result from stigma | • Schools actively work to reduce stigma and build mental health literacy |
| Sancassiani, F. et al. (2015) | Schools | • Mental health promotion is most effective when it takes place early in a person's life, hence schools are ideal for implementation setting<br>• Go beyond problem-focused approach and focus on mental health promotion<br>• School settings can enable positive factors that contribute to growth and development<br>• Whole-school approach<br>• Involve students, teachers, and there is a common purpose in the community achieved through participatory action<br>• Focus on building relationships with caring adults which support positive development through engaging in challenging activities in which young people are active participants, not just recipients of support | • Focus on reducing risk and promoting positive factors (as exampled in key findings)<br>• Whole-school approach which involves students, and other members of community |

| Author, date | Learning community | Main findings | Key attribute |
|---|---|---|---|
| | | • Some positive development objectives are; promoting bonds, social, emotional, cognitive, behavioural, and moral competence, foster resilience, self-determination, spirituality, self-efficacy, clear and positive identity, belief in the future, pro-social norms, and opportunities for pro-social involvement | |
| Taylor, RD. et al. (2017) | Schools | • Positive youth development can support development of positive factors and reduce risk factors and behaviours<br>• Competencies that support mental wellbeing include self-awareness, self-management, social awareness, relationship skills and responsible decision making | • Schools that promote positive youth development, including through building social and emotional competencies, can support mental wellbeing later in life |
| Yamaguchi et al. (2019) | Schools | • Teachers who can recognise mental disorders and underlying symptomatology, have knowledge of treatment and first aid skills to support students, may lead to early and appropriate care<br>• Teachers who are more knowledgeable about mental health may lead to rapid response in terms of student care, and such response may be more appropriate and effective<br>• Teachers who have developed mental health literacy may reduce stigma for students, and therefore encourage help-seeking and support behaviours | • Teachers with improved mental health literacy can support student mental health through recognising symptoms and providing appropriate care<br>• Reducing stigma through teachers' knowledge and awareness can improve mental health of students and support help seeking |

**Appendix 2.** Systematic review findings for effective stratgies for positive mental health and wellbeing in children and young people in early learning and school settings

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Anderson, JK.et al. (2019) | Setting: Schools<br><br>Design: Systematic review, 27 studies<br><br>Intervention: identification process for young people with mental health difficulties | Immediate<br><br>• Identification of young people with mental health difficulties<br><br>Long term<br><br>• Depression and anxiety<br><br>• Behavioural and socio-emotional problems<br><br>• Risk of suicide | • Some evidence to suggest universal screening (all children are assessed for mental health difficulties) may be the most effective method of identifying children and young people with mental health difficulties<br><br>• Although false-positive results appear high, thus expectations of teachers, students and families would need to be managed<br><br>• False negatives were also apparent through follow-up assessment and this would also need to be considered in identification programs<br><br>• Some evidence for multistage models, whereby an initial assessment is supplemented by further assessments and informants<br><br>• There was also evidence that high risk children and young people can be sufficiently identified through single assessments, and further measures do not improve accuracy<br><br>• Some evidence existed for staff in service training and curriculum-based programs to improve identification of mental health difficulties | • Combining universal screening (all students complete mental health measures) with educators nomination (staff identify students who appear at-risk or who have existing mental disorder) shows promise for increasing accuracy of identification of young people with mental health difficulties<br><br>• False positives and false negatives are a consideration<br><br>• Fewer studies focused on identifying mental health difficulties in early childhood, and further research is needed for this age group<br><br>• Very few studies reported outcomes beyond identification of mental health difficulties. Service referral and uptake following identification is therefore not linked to identification, so the longer-term outcomes are not known |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Anderson, M. et al. (2018) | Setting: Secondary schools<br>Design: Systematic review, 8 studies<br>Intervention: Structured training programs which targeted symptoms of anxiety, depression, suicide, post-traumatic stress disorder, low self-esteem, or self-concept | Immediate<br>• Knowledge of educators<br>• Attitudes of educators<br>• Helping behaviours<br>Long term<br>• Depression<br>• Anxiety<br>• Related mental health problems | • Programs provided information on the symptoms that indicate adolescent mental health problems, information on how to identify and assist a student experiencing a mental health crisis, and a response framework or action plan of specific skills<br>• All interventions reported improvements in mental health knowledge and attitudes post-intervention<br>• Little evidence for teachers helping behaviour for student mental health<br>• No evidence to suggest programs alleviated mental health problems among educators themselves<br>• Programs included were; Mental Health First Aid, Youth Mental Health First Aid, Mental Health High School Curriculum Guide, The Guide Pre-Service Professional Development Program | • There is evidence to support providing mental health training to educators, in improving mental health knowledge and attitudes<br>• Evidence for improved mental health knowledge and awareness exists across a range of study designs, training delivery formats, and in diverse samples<br>• Further research is needed to determine whether mental health education programs alter educators behaviour or improve student mental health outcomes<br>• Programs might include information on adolescent mental health symptoms, guidance on how to identify and respond to mental health of adolescents, and response framework |
| Arora, PG. et al. (2019) | Setting: Schools<br>Design: Systematic review, 119 studies | Immediate<br>• Improved services for preventing mental health concerns, remediating students with mental health concerns, and treating | • A variety of approaches were used for prevention including cognitive behaviour therapy, social and emotional learning, mindfulness, social skills training, behavioural therapy | • Prevention and treatment strategies for depression in schools can effectively improve mental health outcomes among young people<br>• These findings relate most consistently to middle and high schools students |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | Intervention: School-based multi-tiered system of support for depression prevention and treatment | young people with highest mental health needs<br><br>**Long term**<br><br>• Depression | • Some studies included other approaches such as school-wide expectations and physical activity<br><br>• 23 out of 30 studies found significant intervention effects on secondary outcomes such as hopelessness and school attendance<br><br>• Approaches for remediating students with mental health concerns included cognitive behavioural therapy, mindfulness, interpersonal therapy and psycho-education<br><br>• 55 out of 71 studies found positive results, primarily relating to depressive disorders<br><br>• Most treatment approaches used cognitive behavioural therapy as a major intervention component, as well as interpersonal therapy, social skills training, behavioural therapy, and social emotional learning<br><br>• 15 out of 19 studies found positive results, relating to predominately to anxiety and depressive disorders | and there is a lack of evidence for early childhood<br><br>• Approaches that demonstrated effectives include cognitive behavioural therapy, behavioural therapy, and mindfulness |
| Blewitt, C. et al. (2018) | Setting: Early childhood education setting (2 to 6 yrs) | **Immediate**<br><br>• Social competence, emotional competence, behavioural self- | • 51 social and emotional learning programs were examined across all studies. The intervention drew upon overlapping child development theories and included explicit and active instruction, modelling, | • Universal social and emotional learning programs delivered to preschool aged children can benefit social and emotional domains the support healthy development. In particular, emotional |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | Design: Systematic review and meta-analysis, 79 studies<br><br>Intervention: Universal curriculum-based social and emotional learning programs | regulation, behaviour and emotional challenges, early learning outcomes<br><br>**Long term**<br>• Social and emotional development | opportunity for practice using classroom routines and activities and through the use of developmentally appropriate teaching methods<br>• Theories of change related to either broad and interrelated set of cognitive, behavioural and affective skills, or specific skills that encourage competencies such as mindfulness, coping and resilience, social problem solving and relationships strategies | competence can be improved through such programs |
| Carsley, D. et al. (2018) | Setting: Schools<br><br>Design: Meta-analysis<br><br>Intervention: Mindfulness interventions delivered in schools | **Immediate**<br>• Mindfulness practice<br>**Long term**<br>• Mental health and wellbeing | • Mindfulness programs revealed significant small effect sizes on mental health and wellbeing outcomes<br>• This effect was greater among adolescents than childhood<br>• The interventions with the strongest effects included combinations of mindfulness activities and yoga-based mindfulness activities<br>• The individual delivering the program was a major contributor to intervention effectiveness | • Mindfulness programs can have positive mental health benefits; however, this may be more beneficial for adolescence than younger aged children<br>• Programs were more effective when delivered by a teacher who had been trained, as opposed to an outside facilitator<br>• Competency in delivering mindfulness practice was an enabler to intervention success<br>• Programs should be adapted to classroom and school needs |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Cheney, G. et al. (2014) | Setting: Schools<br><br>Design: Systematic review, 16 studies<br><br>Intervention: Targeted group intervention to address mental health difficulties in UK schools | **Immediate**<br>• Emotional, behavioural or social functioning<br><br>**Long term**<br>• Mental health and wellbeing | • Nurture groups, whereby students are provided structured daily routines to promote security, and social development, supportive and caring relationships between educators and students are developed, adult model appropriate social action, and efforts are made for positive parental interaction, were found to have immediate positive impact on social and emotional wellbeing of young people | • Younger aged students may benefit from programs which promote safe and secure environments in the classroom<br>• Educators can act as role models for positive relationships and interactions<br>• This can extend to families and families |
| Corrieri, S. et al. (2014) | Setting: Schools<br><br>Design: Systematic review, 28 studies<br><br>Intervention: School-based prevention interventions (RCTs) on depression and anxiety | **Immediate**<br>• Depression and anxiety disorders and symptoms<br><br>**Long term**<br>• Depression and anxiety | • Majority of interventions were effective for both depression and anxiety<br>• Reviewed interventions that demonstrated effectiveness included cognitive behavioural therapy programs, coping strategies and resiliency programs | • Programs underpinned by established psychological and wellbeing theories appear promising including cognitive behavioural therapy, coping strategies, physical activity (for anxiety), and resiliency building programs |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Dray, J. et al. (2017) | Setting: Schools<br>Design: Systematic review, 57 studies<br>Intervention: Universal resilience focused interventions | **Immediate**<br>• Resiliency<br>**Long term**<br>• Depression and anxiety symptoms, hyperactivity, conduct problems, internalising and externalising problems | • Resilience focused interventions were effective relative to controls in reducing at least four out 7 outcomes<br>• Interventions were effective for anxiety symptoms and general psychological distress among children<br>• For adolescents, internalising symptoms were successfully reduced through resilience interventions<br>• Interventions were particularly effective when a cognitive behavioural therapy-based approach was used | • Resiliency interventions can hold benefits for both child and adolescent populations, particularly when combined with cognitive behavioural therapy |
| Fenwick-Smith et al. (2018) | Setting: Primary schools<br>Design: Systematic review, 11 studies<br>Intervention: Universal, resilience-focused mental health promotion programs | **Immediate**<br>• Social and emotional competence<br>**Long term**<br>• Mental wellbeing and reduction of risk factors | • Ten out of 11 studies reported positive outcomes with improvements in resilience and other protective factors, including increased use of coping skills, internalising behaviours and self-efficacy at post assessment<br>• The involvement of teachers in the delivery of programs emerged as an enabler<br>• This was due to programs being able to adapt the program and implement successfully if also provided with program support and training<br>• Adaptability was characterised by the program being modified to by adding or | • Resiliency programs can be effective in supporting primary school children's social and emotional development<br>• Teacher delivery is beneficial so that programs can be adapted to suit unique needs<br>• Screening to identify students at risk alongside resilience programs is recommended.<br>• Longer term follow-up is also recommended |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | | | removing activities based on student literacy, mood and timing <br><br> • Program duration did not appear to affect outcomes but longer-term follow-up tended to either not be successful, or not be conducted <br><br> • Common themes across resiliency programs included targeting resilience through empathy, trust of others, engaging and navigating daily life, social interactions and society <br><br> • Screening for individuals at risk alongside resiliency training is recommended due to ceiling effects | |
| Goldberg, JM. et al. (2018) | Setting: Schools <br><br> Design: Meta-analysis, 45 studies <br><br> Intervention: Whole-school approach to enhancing social and emotional development | **Immediate** <br> • Social and emotional adjustment <br> • Behavioural adjustment <br> • School performance <br> • Internalising symptoms <br><br> **Long term** <br> • Social and emotional development | • Whole-school interventions were defined as including a coordinated set of activities such as curriculum teaching, school ethos and environment, family and community partnerships <br><br> • Post-intervention outcomes showed small but significant improvements in social and emotional adjustment, behavioural adjustment, and internalising symptoms <br><br> • Key components were; providing guide to support schools to develop policies based on intervention principles, establishing a school committee to plan and implement | • Whole-school approach to social and emotional development including classroom curriculum, family component, and strategies aimed to strengthen school ethos and environment |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | | | the program, staff meetings dedicated to planning, professional development opportunities, school-wide rules and displaying of posters to reflect program concepts, parent education programs, and whole staff learning | |
| Iachini, AL. et al. (2015) | Setting: Schools<br>Design: Meta-analysis, 7 studies<br>Intervention: School mental health early intervention and academic outcomes for at-risk students | Immediate<br>• Detentions<br>• Attendance/absence<br>• Discipline referrals<br>Long term<br>• Grade point average<br>• Academic performance<br>• Self-esteem<br>• Self-concept | • Meta-analysis of the seven studies found no statistically significant effect overall on key academic outcomes | • NA |
| Johnstone, KM. et al. (2018) | Setting: Primary schools<br>Design: Meta-analysis, 14 studies<br>Intervention: Universal | Immediate<br>• Depression and anxiety symptoms<br>• Social and emotional learning<br>• Social skills<br>Long term | • All identified studies were primarily based on cognitive behavioural therapy<br>• Prevention programs led to significantly fewer depression symptoms at post-program and at longer term follow-up<br>• Prevention of anxiety was not observed | • Anxiety and depression programs may be effective in preventing symptoms of depression<br>• Programs that contained more sessions showed larger effects |

**Mentally Healthy Learning**          **Communities: Supporting evidence**

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | school-based programs for anxiety and depression | • Depression and anxiety | • Components identified as successful include strategies for students to recognise symptoms and unhelpful thoughts, coping skills, parental education, problem solving and behavioural techniques | |
| Kremer, KP. et al. (2015) | Setting: Schools<br><br>Design: Systematic review and meta-analysis, 24 studies<br><br>Intervention: After-school programs to prevent adverse mental health outcomes in at-risk students | Immediate<br>• Prevent adverse mental health outcomes<br>• Decrease risks of further development of mental health outcomes<br>• Improve functioning in at risk youth<br><br>Long term<br>• Academic achievement<br>• Crime and behavioural problems<br>• Socio-emotional functioning<br>• School engagement and attendance | • Overall, the after-school programs were found to have a small and non-significant effect on externalising behaviour and school attendance | • After-schools programs may hold benefits for at risk youth when there are clear goals and programs are developed using theory of change to inform program elements. Failing to build in specific mechanisms is likely to lead to failed program outcomes<br>• Overall limitations included studies that were low in methodological rigor (failure to detail randomisation process), and studies often failed to report demographic information of participants. Specific subgroups may respond differently to school programs |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Mackenzie, K. et al. (2018) | Setting: Schools<br><br>Design: Systematic review, 12 studies<br><br>Intervention: Universal interventions delivered in UK mainstream schools to improve mental health and emotional wellbeing | **Immediate**<br>• Emotional regulation<br>• Problem-solving<br>• Self-awareness<br>• Relationship building<br>• Relaxation<br>• Mindfulness<br>• Resiliency<br>• Mental health literacy<br>**Long term**<br>• Mental health<br>• Emotional wellbeing | • Neutral or small positive effects were found in school-based universal interventions<br>• Methodological issues reduced the quality of studies, including small sample sizes, variation in course fidelity, and lack of randomisation<br>• CBT based programs delivered in primary schools, appeared to show positive effects on measures of anxiety, particularly among older aged children<br>• In secondary schools, positive results were found in delivering mental health education sessions, behavioural or mindfulness interventions. CBT-based interventions failed to show improvements<br>• Wellbeing and resilience measures were infrequently used, but of those studies that did measure such concepts, improvements were identified<br>• Demonstrating improvements in mental health in universal populations can be difficult due to floor effects, thus measurement is recommended to account for this | • CBT programs in primary schools, and mental health education, behavioural and mindfulness programs appeared to be significant in improving mental health outcomes<br>• Measuring both mental health problems, and positive wellbeing and resilience is recommended, to capture the universal population changes<br>• Monitoring of students across all risk levels may improve the evaluation of programs (e.g. at risk, not at risk, living with mental disorder) |
| O'Reilly, M. et al. (2018) | Setting: Schools | Immediate | • Whole-school approaches which aimed to build social and emotional competency | • Positive impact in terms of social emotional competence among |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | Design: Systematic review, 10 studies Intervention: School-based mental health promotion interventions | • Emotional and social competence<br>• Resilience<br>• Communication<br>• Problem solving<br>• Mindfulness<br>• Self-esteem<br>**Long term**<br>• Mental health promotion | among students, build capacity for delivery among teachers, engage families, and build positive school communities showed modest but positive effects<br>• Improvements in social and emotional competence were observed<br>• Improvements in externalising and internalising behaviours was observed<br>• Improvements in teachers' perceptions of academic performance was observe, but only in one study | students was observed in whole-school programs for mental health promotion<br>• Long-term follow-up is needed to monitor outcomes |
| Rafferty, R. et al. (2016) | Setting: Primary schools Design: Systematic review, 11 studies Intervention: Physical activity interventions | **Immediate**<br>• Physical activity<br>• Physical health and wellbeing<br>• Self-worth<br>**Long term**<br>• Mental wellbeing | • Interventions were mostly multi-component, including overall lifestyle improvement components, schools plan to promote physical activity and diet, curriculum programs for lifestyle behaviours, and specific physical activity intervention delivered in school<br>• Three studies reported a positive increase in wellbeing, operationalised as psychosocial quality of life, and global self-worth<br>• Improved physical activity alongside improvements in wellbeing were identified in one study | • Some psychosocial benefits may exist in physical activity multi-component interventions delivered in schools, however limitations in study design and measurement preclude clear evidence of effectiveness |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| Salerno, JP. (2016) | Setting: Schools<br><br>Design: Systematic review, 15 studies<br><br>Intervention: Universal school-based mental health awareness programs in the US | **Immediate**<br>• Mental health awareness<br>• Mental health knowledge and attitudes<br>• Help-seeking<br>**Long term**<br>• Mental health problems | • Interventions comprised curriculum programs, one-off presentations and classroom sessions<br>• Statistically significant improvements in knowledge, attitudes and help-seeking were identified, however interventions failed to measure longer-term outcomes | • Mental health awareness programs delivered in curriculum and classroom settings may support improvements in knowledge, attitudes and help seeking behaviours<br>• Monitoring beyond program delivery is required to evaluate longer-term mental health outcomes |
| Sancassiani, F. et al. (2015) | Setting: Schools<br><br>Design: Systematic review, 22 studies<br><br>Intervention: Universal school-based randomised control trials to improve emotional and social skills | **Immediate**<br>• Emotional and social skills<br>**Long term**<br>• Psychosocial wellbeing<br>• Positive development<br>• Healthy lifestyle behaviours<br>• Academic performance | • Interventions were targeted to promoting life skills, preventing substance use, promote school ethos, improve pro-social behaviours, and improve lifestyle behaviours<br>• Programs delivered across entire school community (students, families, teachers, school environment and community) to improve social and emotional skills, healthy behaviours, psychological wellbeing, academic performance, demonstrated effectiveness<br>• Studies were limited in that few measured effectiveness beyond six months and few | • Whole-school approaches to social and emotional competencies, mental wellbeing and lifestyle behaviours can be effective for life skills, health behaviours, coping strategies, psychological wellbeing, pro-social behaviour and preventing substance use uptake<br>• Monitoring long term is recommended, as is the use of standardised measures |

**Mentally Healthy Learning**      **Communities: Supporting evidence**

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | | | used standardised measures to assess outcomes | |
| Sanchez, AL. et al. (2018) | Setting: Primary schools<br>Design: Meta-analysis, 43 studies<br>Intervention: Mental health services delivered by school personnel | Immediate<br>• Externalising<br>• Internalising<br>• Substance use<br>• Attention problems<br>Long term<br>• Mental health problems | • Services delivered by school-based personnel showed small to medium effect on child mental health problems<br>• Mental health services implemented within students curriculum, targeting externalising problems, and implementing multiple times weekly showed strongest effects<br>• Universal strategies appeared less successfully, but this may be due to floor effects<br>• Brief school-based services showed improvements as with longer term interventions<br>• However, more frequently delivered services showed stronger effects than less frequent | • School-based personnel are uniquely positioned to deliver mental health programs<br>• Particularly strong effects may be achieved through implementing through curriculum, and increased frequency (as opposed to increased duration)<br>• Universal, selected and targeted approaches hold unique benefits |
| Taylor, RD. et al. (2017) | Setting: Schools<br>Design: Meta-analysis, 82 studies<br>Intervention: Social and emotional | Immediate<br>• Social and emotional skills, knowledge and competencies<br>Long term<br>• Social and emotional wellbeing | • Participants benefited significantly more than controls on social and emotional competencies, and positive and negative indicators of wellbeing<br>• Specific sub-group analyses found no difference in improvements across demographic subgroups, or across | • School-based social and emotional learning interventions improve skills, knowledge and competencies, and jointly improve/decrease positive and negative indicators of wellbeing<br>• These benefits appear to be consistent with various demographic groups |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | learning interventions | Mental health and wellbeing | contexts (participants benefitted in similar ways)<br>• Age-predicted outcomes in that children aged 5-10 years reported strongest effects and this decreased into adolescence | |
| Waldron, SM. et al. (2018) | Setting: Schools<br>Design: Systematic review, 8 studies<br>Intervention: Universal school-based anxiety prevention programs | Immediate<br>• Relaxation<br>• Cognitive restructuring<br>• Peer support<br>• Attention training<br>• Self-beliefs<br>Long term<br>• Anxiety | • All interventions used cognitive-behavioural principles<br>• Reduced anxiety symptoms were observed in some studies that taught children relaxation, cognitive restructuring, attention training, and peer support<br>• There were some findings that suggested delivery by health professionals may lead to improved outcomes compared with delivery by teachers, although this was reported in one study only | • Programs that use cognitive behavioural principles to improve cognitive restructuring, relaxation and other protective skills, show some improvements in anxiety symptoms in young people |
| Werner-Seidler, A. et al. (2017) | Setting: Schools<br>Design: Systematic review and meta-analysis, 81 studies<br>Intervention: Randomised | Immediate<br>• Relaxation<br>• Cognitive restructuring<br>• Mindfulness<br>• Psycho-education<br>Long term<br>• Anxiety | • Most programs comprised cognitive behavioural therapy techniques, delivered by external personnel in the school environment, in group format, averaging 8-12 sessions<br>• Small effect sizes for depression and anxiety were observed<br>• There was some evidence that externally-led programs as opposed to school-led, | • Universal, cognitive therapy-based interventions may hold benefits for anxiety and depression in schools<br>• There are some benefits observed for externally-led programs, but this is inconsistent for depression and anxiety<br>• Engaging young people and consulting for program delivery may assist in overcoming barriers to engagement |

| Author, date | Study design | Outcome of interest | Main findings | Effective strategy |
|---|---|---|---|---|
| | control trials of psychological school-based programs to prevent depression and/or anxiety in young people | • Depression | improved outcomes for depression, but the same finding was not found for anxiety | |
| Yamaguchi et al. (2019) | Setting: Schools<br><br>Design: Systematic review, 16 studies<br><br>Intervention: Mental health literacy programs for teachers | Immediate<br>• Teachers knowledge of mental illness<br>• Teachers stigma towards mental illness<br>• Confidence in helping students<br>• Behaviour of helping students<br>Long term<br>• Mental health problems among students | • Interventions involved introducing experiences of young people living with mental illnesses, group discussions, mental health first aid, role play, and video clips<br>• Most studies were of low quality and overall there was reported significant improvement in knowledge, attitudes, behaviour and/or confidence among teachers | • There is evidence that programs designed to improve mental health literacy among teachers, can lead to improved teacher knowledge, attitudes, and reduced stigma<br>• Further monitoring is needed to assess whether building teachers literacy translates to actual support to students mental health |