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Wicked Wellbeing: Examining the Disconnect Between the Rhetoric and Reality of Wellbeing Interventions in Schools

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Abstract: Wellbeing is an emerging priority that poses a ‘wicked’ problem. Current directives from policy makers are that schools address student wellbeing. However, the lack of a clear definition, simple solution or process for ensuring wellbeing creates a difficult task for schools. This article seeks to add to the current understanding of wellbeing in schools by drawing on the findings of a systematic literature review to investigate the characteristics and outcomes of school-based wellbeing interventions. Four databases were searched to identify relevant peer-reviewed articles published in English. The background discussion is set in the Australian context, however, the geographic scope of the literature review is international. Findings of the study align with previous research that views definitions of wellbeing as problematic. The broad range of wellbeing interventions found in the literature highlights a lack of consensus around best practice for wellbeing in schools. Despite evidence showing the benefits of a whole school approach, the majority of articles describe programs and strategies targeted at small groups of students. The outcomes of the interventions are difficult to compare because they do not necessarily relate directly to wellbeing. This article raises questions about the evidence base to support the validity and trustworthiness of the interventions. Further research is necessary to consolidate understandings of wellbeing and to provide solid research evidence to inform further development of school wellbeing practices.

Introduction

Mental health difficulties have detrimental effects on the wellbeing of young people (Dodge, Daly, Huyton, & Sanders, 2012; Mission Australia, 2017). The most recent Mission Australia Youth Mental Health Report documents an alarming increase in the number of young people aged 15 to 19 years who meet the criteria for “having a probable serious mental illness ... from 18.7% in 2012 to 22.8% in 2016” (2017, p. 5). Such statistics provide a compelling argument for policy and research aimed at improving youth mental health.

Increasingly, in Australia, departmental imperatives for schools prioritise student mental health and, more broadly, wellbeing. For example, the Australian Government, Department of Education and Training provides wellbeing support through interventions such as whole-of-school safety and wellbeing policies, the Safe Schools Framework, the Safe Schools Coalition Australia Programme, and the Student Wellbeing Hub (Australia, 2017).

The terms mental health and wellbeing are often used interchangeably and, unsurprisingly, are also interlinked in research (Anderson, 2005; Carta, Di Fiandra, Rampazzo, Contu, & Preti, 2015; Cefai & Camilleri, 2015; Erhart et al., 2009; Graetz et al., 2008; Hall, 2010). For example, the World Health Organisation (WHO) defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (2014, para 1). The term mental health stems from the medical field and, as per WHO’s definition, is seen as being more than simply the absence of mental illness (Seligman, 2012). Wellbeing stems from the philosophical field and has been traced back to the works of two competing Greek philosophers, Aristippus of Cyrene and Aristotle. For Smith and Reid (2017) the dichotomy that we find in today’s abundant research into wellbeing represents Aristippus’ concept of hedonic happiness and Aristotle’s eudaimonic approach. The hedonic view is commonly understood as subjective wellbeing composed of having a positive mood and life satisfaction, and the absence of negative mood (Smith & Reid, 2017). The eudaimonic approach involves living well and finding meaning in life and also encompasses a deeper sense of developing a moralistic and ethical character (Deci & Ryan, 2008; McMahan & Estes, 2011; Smith & Reid, 2017).

Indeed, wellbeing is considered a “wicked problem” because it is a complex and contested concept (Bache, Reardon & Anand, 2016). If we consider that, as Bache, Reardon, and Anand (2016) explain, a “wicked problem” is a problem that lacks definition and a definitive or objective answer, then wellbeing fits the definition. The wicked a problem is, the more it requires higher levels of awareness, higher ambitions to solve it and shrewder approaches that involve combinations of rational thinking (Young et.al, 2015). As argued in this article, wellbeing is particularly wicked because definitions are multidimensional and, hence, not easily teased out and clarified (Bache, Reardon & Anand, 2016).). Wellbeing definitions capture concepts of “health, contentment and flourishing” (Vernon, 2008, p. 45), refer to personal and communal aspects and to having the “psychological, social and physical resources” needed to meet life challenges (Dodge, Daly, Huyton, & Sanders, 2012, p. 230). According to Dodge et al., (2012) wellbeing is the point of balance between the resources one has and the challenges one faces. Wellbeing is used in everyday formal and informal conversations, regularly appears in government reports and the media, but explanations about exactly what wellbeing looks, feels or sounds like are elusive (Slee & Skrzypiec, 2016). It is proposed that this complexity creates difficulty in the selection and implementation of wellbeing approaches (Slee & Skrzypiec, 2016). Matters are further complicated by unclear spelling (wellbeing, well-being and well being) and word associations such as emotional wellbeing, social wellbeing, psychological wellbeing and mental health and wellbeing.

A further complication is that wellbeing is a multidisciplinary concept, applied across the varied fields of economics, politics, psychology, philosophy, counselling and education. In economics and politics wellbeing is narrowly conceptualised as a measurement tool to, for instance, measure national happiness, satisfaction or success (Rath & Harter, 2010; La Placa, McNaught, & Knight, 2013). Economists conceive wellbeing as a quantifiable good with elements that can be separated, operationalised and measured (see, for instance, Rath & Harter, 2010). Psychologists take a more subjective, broader and holistic interpretation

captured through words like contentment, satisfaction, quality of life, and flourishing (Huppert, 2009; Gillett-Swan & Sargeant, 2015; Dodge et al., 2012). In philosophy, wellbeing is most often used to describe what makes life good or worth living and has been conceptualised through two approaches: the hedonic and the eudaimonic (Smith & Reid, 2017), as described above. In education, wellbeing has been conceptualised from five different disciplines (Spratt, 2016), namely medicine, psychology, social work, counselling and philosophy. Through the 1980s and 1990s schools drew from the field of medicine for programs such as “Health Promoting Schools” which encouraged wellbeing through health promotion. The 2000s saw a shift to a psychology, counselling and social work perspective of wellbeing with the introduction of social-emotional learning programs (Cohen, 2006) like “Bounce Back” (McGrath & Noble, 2013) and “You can do it” (Bernard & Walton, 2011). Following this, schools continued to draw on psychology, counselling and social work to conceptualise wellbeing as a remedy to pervasive mental illness conditions in young people through programs like MindMatters (Wyn, Cahill, Holdsworth, Rowling, & Carson, 2000) and KidsMatter (Graetz et al., 2008). More recently, Positive Education, emergent from the field of Positive Psychology, has drawn from the discipline of philosophy’s eudaimonic wellbeing (Norrish, Williams, O’Connor, & Robinson, 2013).

Wellbeing in schools is often seen from a deficit perspective, with interventions implemented in a spurious manner in an attempt to fix a perceived problem (Commission for Children and Young People, 2009). Discrete educational areas that are addressed under the banner of wellbeing include health, sexual health, drugs and alcohol, anti-bullying, social skills, friendship skills, mindfulness and mental health education (Spratt, 2017). This deficit approach leads to schools implementing interventions in a reactive manner, often to identified groups of students, which, in turn, results in a disjointed and piecemeal approach to wellbeing (Powell & Graham, 2017). Emerging, however, is the development of a more holistic approach by teachers and principals that involves creating a positive school culture. This is evident by recent increases in schools embracing approaches that take a holistic whole school perspective of wellbeing, such as the Positive Education framework (Adler, 2017; Chodkiewicz & Boyle, 2017; Elfrink, Goldberg, Schreurs, Bohlmeijer, & Clarke, 2017), KidsMatter Primary (Graetz et al., 2008), MindMatters (Wyn et al., 2000) and the most recent whole school approach, Be You (Beyond Blue, 2018).

Mental health and wellbeing are particularly important concepts for school educators. Wellbeing is considered an essential component of education in response to research findings linking wellbeing and learning. Students experience more success in learning when wellbeing is optimised (Department of Education and Training Queensland, 2018; Graetz et al., 2008; Gray & Hackling, 2009; Miller, Connolly, & Maguire, 2013; Roffey, 2009; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009; S. Suldo, Thalji, & Ferron, 2011). Wellbeing mediates young people’s cognitive and emotional engagement with school and impacts on educational achievement (Pietarinen, Soini, & Pyhältö, 2014). The important link between wellbeing and education is even more significant if we consider that levels of wellbeing at school impact on an individual’s health, relationships, employment, and potential earning, well into adulthood (Waters, 2017). This extends to the next generation. When young people who are disengaged from education have families of their own, they may be less able to support their children to engage meaningfully in education (Hancock & Zubrick, 2015).

In Australia, support for student wellbeing is provided through broad policy at the national level that provides “Australian schools with a vision and a set of guiding principles to support school communities to build positive learning environments” (Department of

Education and Training, 2018). This policy is further supported at the state and regional levels by a range of frameworks and recommended programs (Department of Education and Training Queensland, 2018). Examples of wellbeing frameworks are the Learning and Wellbeing Framework from Queensland (Department of Education and Training Queensland, 2018), the Wellbeing Practice Guide from Victoria (Victorian Curriculum and Assessment Authority, 2016) and the Wellbeing Framework for Schools from New South Wales (NSW, 2015). Because young people in Australia attend school for some 11-13 years, schools provide an ideal site for implementing preventative mental health and wellbeing strategies (Carta et al., 2015; Dix, Slee, Lawson, & Keeves, 2012; Wolpert, Humphrey, Belsky, & Deighton, 2013). As education researchers and practitioners, we note an escalating focus on wellbeing in schools, however, little guidance appears to be provided for building understanding about how to embed wellbeing into existing school policies, culture, and practices (Powell & Graham, 2017). Our own research and experiences in schools indicates little understanding by school educators about the most effective approach to wellbeing. There is also a lack of clarity or understanding of what exactly wellbeing entails.

This lack of clarity is reflected in the variety of definitions used by Australian education authorities. The Victorian Curriculum and Assessment Authority (2016) defines wellbeing as having “good mental and physical health, including attachment, positive affect and self-regulation, being able to manage emotions productively and build resilience and persistence, being adaptable and confident and experiencing feelings of satisfaction and happiness” (p. 4). The New South Wales Department of Education and Communities (2015) embraces two definitions of wellbeing, both the hedonic - experiencing positive emotions - and the eudaimonic - flourishing and functioning well - and recommends the combining of both definitions as the best approach to wellbeing in schools. The Department of Education and Training Queensland (2018) utilises the previously cited WHO’s definition. The South Australian Department for Education (2016) alternatively uses a more hedonic definition, “Wellbeing means having good or satisfactory conditions of existence – in health, happiness and prosperity” (p. 2). The Commonwealth Government of Australia’s *Australian Student Wellbeing Framework* (Education Council, 2018) takes a more eudaimonic view of wellbeing without explicitly defining wellbeing. Without consistency from the education authorities, schools will struggle to develop a clear, consistent approach to wellbeing.

Researchers (eg. Dix et al., 2012; Slee, Dix, & Askill-Williams, 2011) recommend that full development of wellbeing within a school community requires adoption of a universal, whole school approach. A whole school approach involves all members of the school community, including staff, parents and carers, students and the broader community in the building of a positive culture across all the years and areas of schooling (KidsMatter, 2013; Slee, Dix, & Askill-Williams, 2011; Waters, 2011). It encompasses evidence-based practices that promote wellbeing, prevent problems, and adopt early interventions when problems do arise. The whole school approach leads to more sustainable and positive outcomes for students than isolated classroom interventions because students are immersed in a sense of wellbeing embedded across the school community (Hall, 2010; Slee et al., 2011). Many schools simply take a hit and miss approach to wellbeing, implementing short-term interventions that have no long-term benefits for students (Durlak & DuPre, 2008; Konu & Rimpelä, 2002; Slee et al., 2011). Further inhibiting development is little or no program evaluation (Allen et al., 2017; McLellan & Steward, 2015), which, in turn, compromises developing an understanding of effective strategies for strengthening wellbeing in schools.

This review aims to explore what schools are currently doing to positively affect student wellbeing. It aims to bring some clarity to understandings of wellbeing and interventions in schools by investigating systematically how school educators understand wellbeing and the range, characteristics and outcomes of wellbeing interventions currently in use. With the complexity and diversity represented in current wellbeing literature, a review of research findings can play an important role in the development and implementation of wellbeing interventions in schools. With this in mind, we outline our methodology before providing results in response to the study's three questions:

1. How is wellbeing defined in educational research?
2. What wellbeing interventions are currently implemented in K-12 school settings from around the world, published in English and what are their characteristics?
3. Which outcomes can be attributed to school-based wellbeing interventions?

Method

Systematic literature reviews provide a reliable method for analysing literature published on a given topic by providing replicable processes and help to identify gaps in research by exploring and understanding an existing literature base (Dietrich, Rundle-Thiele, Schuster, & Connor, 2016; Moher, Liberati, Tetzlaff, Altman, & The, 2009; Pickering & Byrne, 2014). The method is also very useful for defining boundaries and identifying generalisations (Moher et al., 2009; Welsh et al., 2015). Of the various approaches for systematically reviewing the literature this study applied the fifteen prescriptive steps recommended by Pickering and Byrne (2014).

The research process began by defining the topic of the review, formulating the research purpose, identifying keywords, and selecting the databases to be searched. Databases searched to locate wellbeing publications included A+ Education via Informit, ERIC via Proquest, Scopus, and Psych Info. Abstracts were analysed to select publications that included the following terms in the title: school AND "well being" OR well-being OR wellbeing. Limiting the search to title, ensured the search was limited to journal articles that met the inclusion and exclusion criteria.

Inclusion and exclusion criteria were then defined for this study. Citations were included if they **were related to wellbeing practices** in the K to Year 12 school context, written in English and published in peer reviewed academic journals (see step 1, Figure 1). Citations were excluded if they focused on wellbeing outside the primary or secondary context or examined wellbeing in small **discrete** school populations such as students with special needs or male Year 9 students. No limitation on date was used in order to provide an overview of the research on student wellbeing undertaken over time.

At this point, the abstracts of the articles were read online to determine inclusion or exclusion and those deemed to meet the inclusion criteria were exported to the reference management system EndNote (a total of 317 articles – see step 1, Figure 1). After removing duplicates, a total of 237 titles and abstracts were screened for study suitability. Following the exclusion of a further 14 articles (step 2, Figure 1), a total of 223 publications were retained for classification as intervention, measurement or descriptive articles. Inter-rater reliability was assured through a process of discussions between the first two authors. Disagreements were mediated by the third author. Categorisation of articles involved the first author independently categorising the 223 included articles into intervention, measurement, or descriptive articles (see step 3, Figure 1). The second author then categorised 10 per cent of

the articles to ensure inter-rater reliability. In the first instance, inter-rater reliability was 70 per cent. To further strengthen reliability, the first two authors met several more times to discuss and align definitions and understandings of the categories. Following further classification, the second author categorised a further 10 per cent of articles resulting in the final inter-rater reliability of 98 per cent. This process resulted in 98 measurement, 52 descriptive and 73 intervention studies (Step 3, Figure 1).

We were interested in the intervention articles as these studied ‘in school’ practices which may have a direct benefit to students’ wellbeing. Hence, a total of 73 articles reporting on a school-based wellbeing intervention were downloaded (Step 4, Figure 1). For this review, an intervention study was required to involve a wellbeing programme, intervention or approach implemented in a school context with data collected before and after the intervention. Notable is that regardless of following Pickering and Byrne’s (2014) detailed approach, the process necessitated constant discussion between the three authors to clarify and align interpretations of intervention articles. As a result, a further 21 articles were excluded in Step 4, due to determining that they did not meet the inclusion criteria. This final screening resulted in 52 papers identified as intervention articles which were retained for the literature review (Step 4, Figure 1).

The 52 retained intervention articles were entered into a spreadsheet using Microsoft Excel, to aid the process of examining and analysing the articles. The matrix included the following key features: title, author(s), country of study, year of publication, journal name, keywords, methods, data analysis method, subjects, definition of ‘well-being’, type of intervention, domain of wellbeing addressed, measures used, main findings, theory (if included) and recommendations for further research. This spreadsheet simplified the process of writing this literature review by making the key features of the journal articles more apparent.

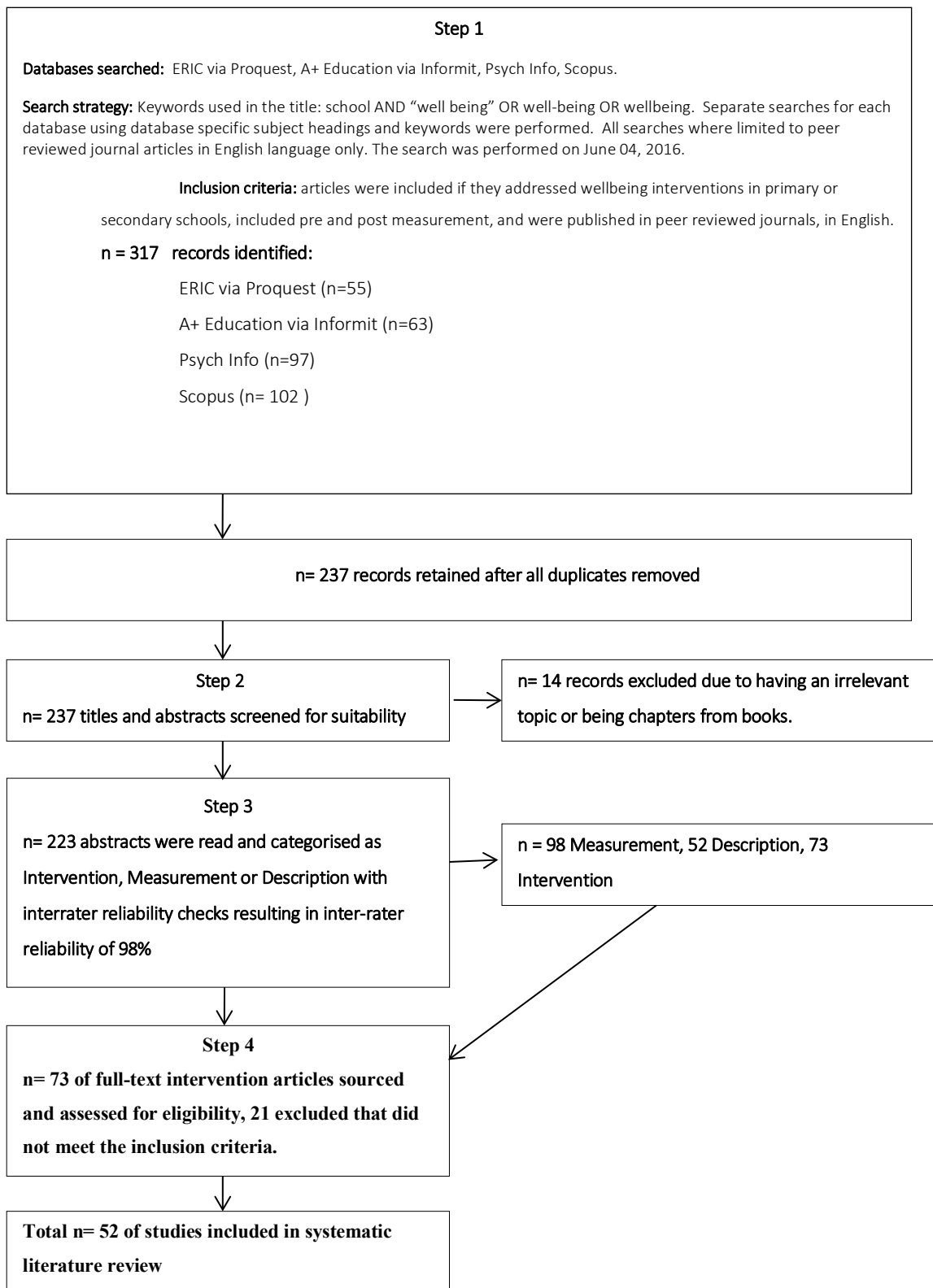


Figure 1. Process followed for literature selection.

Findings

How is wellbeing defined in educational research?

Results of the systematic literature review find definitions of wellbeing to be numerous and varied. Out of 52 articles reviewed, only 17 explicitly define wellbeing (marked with * in Table 1, Appendix A). The definitions of wellbeing in nine articles align with the hedonic view of wellbeing, with students having high levels of positive emotions, low levels of negative emotions and high life satisfaction (Besançon, Fenouillet, & Shankland, 2015). Four articles define wellbeing using a combination of hedonic and eudaimonic wellbeing, in most cases including self-actualisation (Galton & Page, 2015). The final four articles define wellbeing differently. Duckett, Sixsmith, and Kagan (2008) define wellbeing as involving a complex interaction between individuals and their environments. Alternatively, Frydenberg (2009) define wellbeing as an accumulation of resources to help the individual face challenges. Maller (2005) uses additional terms such as social, emotional and spiritual wellbeing to highlight that wellbeing is not simply the absence of mental illness symptoms. Finally, Atkinson and Rubridge (2013) explain wellbeing as being situational and relational. Whilst not explicitly defining wellbeing, seven articles equate wellbeing with the absence of mental health symptoms while two articles focus on the presence of symptoms as indicators of poor wellbeing (Table 1, Appendix A). It is interesting to note that many articles attempt to clarify their meaning of wellbeing using additional terms before the word wellbeing (final column in Table 1, Appendix A), for example, social wellbeing, psychological wellbeing and emotional wellbeing.

Further insight is provided by exploring how the 52 articles align with the conceptualisations of wellbeing in education. Similar to the discipline of medicine, three articles adopt a health promotion approach (Levin et al., 2012; Lee et al., 2006; Thomas, 2008). A further 12 articles report a social emotional learning approach, which aligns with the conceptualisation of wellbeing by psychology and social work (Anderson, 2005; Barrett, Antichich, & Spencer, 2007; Bernard & Walton, 2011; Leary, 2000; Clarke, Bunting, & Barry, 2014; Clarke, Sixsmith, & Barry, 2015; Frydenberg, 2009; Hallam, 2009; Bond et al., 2004; Patton et al., 2006; Veltró, Ialenti, Iannone, Bonanni, & Garcia, 2015; Beem & Brugman, 1986). A further eight articles (Anderson & Doyle, 2005; Wyn et al., 2000; Duckett, Sixsmith, & Kagan, 2008; Vrandá, 2015; Puolakka, Haapasalo-Pesu, Konu, Åstedt-Kurki, & Paavilainen, 2014; Tomba et al., 2010; Kendal, Callery, & Keeley, 2011; Vostanis, Humphrey, Fitzgerald, Deighton, & Wolpert, 2013) highlight the influx of mental health promotion approaches conceptualised by psychology and social work. The influence of philosophy is evident in the seven articles reporting on positive psychology interventions (Boniwell, Osin, & Martinez, 2016; Bowser, 2012; Ruini, Belaise, Brombin, Caffo, & Fava, 2006; Ruini et al., 2009; Soshani & Steinmetz, 2014; Standage, Cumming, & Gillison, 2013; Suldo et al., 2015). Regardless of the term used to describe wellbeing, the conceptualisation of wellbeing or the definition offered, the interventions used to enhance wellbeing within the literature sample provide an insight into how schools are addressing wellbeing. This is explored in our response to the second research question.

What wellbeing interventions are currently implemented in K-12 school settings and what are their characteristics?

The second research question explores the type and scope of school-based wellbeing interventions currently researched in education. A total of 16 different types of wellbeing interventions emerge from the 52 articles in this study (see Appendix A). The most numerous are social emotional learning interventions (12 articles), with a focus on improving children's social and emotional skills to improve wellbeing. Next are positive psychology interventions (7 articles), designed to improve wellbeing using positive psychological activities such as gratitude, increasing positive emotions and improving relationships. Arts based interventions based on visual arts and music are the next largest group (5 articles). Of equal numbers are interventions based around alternative (non-medical) therapies (5 articles), including yoga, mindfulness, massage and meditation. Symptom based interventions (3 articles) also feature, where the intervention is designed to reduce existing mental health symptoms. Community mental health interventions (3 articles) focus on relationships within the school community. Health-based interventions (3 articles) include interventions based on the health promoting school framework and a unique approach to health promotion based on seven natural physicians. Mental health promotion interventions (2 articles) report on interventions to address student mental health needs. Interventions based on the school context (2 articles) explored the effects of the school environment. Transition interventions (2 articles) study students transitioning from primary to high school. The nature-based interventions (2 articles) examine the effects of hands-on gardening activities. Parent education programs (2 articles) and a school-based mentoring intervention (1 article) are also included. A cognitive training intervention (1 article) studies the effect of explanatory style, conflict resolution and exercise. A mindset intervention (1 article) is designed to encourage students to have a growth mindset and a peer support intervention (1 article) explores the effects of this program.

We are also interested in the characteristics of the interventions, including the targeted group, timeframe, school/year level, number of participants and country (see Appendix A). The targeted group varies from whole school implementation (13 articles) to small selected groups of students (9 articles). The reporting of participants varies between articles, some identify the number of students, others the number of schools. The timeframes of the interventions vary from one or two days through to three years. Two of the articles provide no implementation period (Duckett et al., 2008; Puolakka, Haapasalo-Pesu, Konu, Åstedt-Kurki, & Paavilainen, 2014). The most common year levels studied are Years 7 and 8. The smallest number of participants include 12 students from one Year 4 class (Suldo et al., 2015). The largest group of participants consists of three cohorts of year 8 students: 2545 students in 1997, 2586 students in 1999, and 2463 students in 2001 (Patton et al., 2006). Maller's (2005) study of 500 schools represents the whole of school age bracket from 5 to 18 years old. The most common geographic location for the research studies is Australia (18), followed by the United Kingdom (11) (see Appendix A for more detail).

What types of outcomes can be attributed to school-based wellbeing interventions?

Researchers provide a range of outcomes resulting from the various interventions, but we find many do not directly relate to wellbeing. Often, the research reports on stress or

tension, depressive symptoms, life satisfaction, mood disturbance, resilience, or reduction in disruptive behaviours as an indicator that the intervention influences wellbeing. For example, Shoshani and Steinmetz (2014) report on a school-wide positive psychology intervention resulting in reductions in anxiety and depression, and increased self-efficacy, self-esteem, and optimism. Three high school-based articles report on reductions in risk taking behaviours (Bond et al., 2004; Lee et al., 2006; Levin et al., 2012; Patton et al., 2006). Taylor et al. (2009) study three interventions; cognitive training, conflict resolution, and exercise, all three interventions lead to a reduction of internalising behaviours such as depressive symptoms and withdrawal.

Several articles report explicit improvements in wellbeing measures. Two articles describe a school-based wellbeing therapy intervention that positively influences wellbeing (Ruini et al., 2006; Ruini et al., 2009). Lau and Hue (2011) report on a pilot study of a mindfulness intervention that shows the intervention leads to a reduction of depression symptoms and an increase in wellbeing. Wellbeing programs for high school students that report effective strategies include MindMatters and the Change program (Anderson, 2005; Anderson & Doyle, 2005; Kendal et al., 2011; Wyn et al., 2000). Other high school wellbeing interventions narrate improvements in student voice, agency and happiness, as well as wellbeing (Boniwell et al., 2016; Carmen et al., 2011; Damon, 2015).

Articles that present notably different approaches to wellbeing include arts-based articles, nature-based articles, articles based on alternative therapies and family-based interventions. Arts based wellbeing interventions demonstrate positive effects of alternative social and physical spaces for learning and on children's wellbeing in schools (Atkinson & Robson, 2012; Atkinson & Rubidge, 2013). Nature based interventions show improvements in student self-concept and self-esteem (Chen et al., 2014; Maller, 2005). A Music program, DRUMBEAT finds a 16 per cent increase in students' self-esteem and an overall decrease in classroom behavioural incidents (Faulkner et al., 2012). Massage, mindfulness, yoga and quiet time interventions all report positive outcomes for students' wellbeing (Haraldsson et al., 2008; Huppert & Johnson, 2010; Noggle et al., 2012; Wendt et al., 2015). Family based interventions also show evidence of positive results, improving children's wellbeing (Harrison & van Vliet, 2013; Sar & Wulff, 2003).

Discussion

This study set out to answer three questions on wellbeing in schools. First, how is wellbeing defined in educational research? Second, what wellbeing interventions are currently implemented in K-12 school settings and what are their characteristics? And finally, which outcomes can be attributed to school-based wellbeing interventions? In considering the first question, we agree with Bache, Reardon and Anand (2016) that defining wellbeing is a wicked problem due to the multidimensional nature of the term, and the many different definitions discovered in the research. The articles in this review draw on four conceptualisations of wellbeing in education from the disciplines of medicine, psychology, social work and philosophy, with psychology being the most prevalent. We are not able to derive a clear definition because the articles reviewed demonstrate a lack of consistent or detailed explanations of wellbeing. This finding is in accordance with other research (e.g., Bache, Reardon, & Anand, 2016) and is reflected in the array of differing definitions of

wellbeing provided in the frameworks of Australian education authorities (Department for Education, 2016; Department of Education and Training Queensland, 2018; Department of Education and Community Development, 2018; Education Council, 2018; Victorian Curriculum and Assessment Authority, 2016). We do identify 17 articles that explicitly define wellbeing, however, within these 17, six different definitions are provided, namely a) hedonic wellbeing involving high levels of positive affect, low levels of negative affect and high life satisfaction, b) combinations of hedonic and eudaimonic wellbeing including self-actualisation, c) interaction between the individual and environment, d) having social, emotional, spiritual wellbeing including an absence of mental illness symptoms, e) wellbeing as situational and relational and f) wellbeing as an accumulation of resources to face challenges. The rest of the articles expect readers to draw on their own understanding of wellbeing. While there is nothing wrong per se with any of the definitions, lack of consistency makes it hard to compare studies. This, in turn, impacts trustworthiness, validity and reduces transferability of the findings. Such practices do not demonstrate a logical progression whereby a clear definition of a construct precedes research design which is then capable of leading to outcome measures or a clearly understood problem.

The above findings have two implications for schools. Firstly, the lack of definition raises concerns about the quality of the evidence on which schools rely. While schools are encouraged to adopt evidence-based programs and practices to address wellbeing, the lack of a clear definition compromises the validity and trustworthiness of the research currently used by schools. Secondly, enabling schools to successfully address wellbeing requires a definition which is shared across the whole school community. School communities cannot be expected to address a problem which lacks a shared definition. Only five articles address the need for a shared definition or language to define wellbeing. We take this to mean that development of a shared definition, and thus a shared understanding, is not a focus for the majority of researchers in the studies reviewed in this study.

In answer to our second question, investigating wellbeing interventions currently implemented in K to 12 schools, results show many and varied types of interventions delivered across a range of targeted groups. Out of 52 studies, we distinguish 16 different types of wellbeing interventions. This is a positive finding in so far as it reflects concern and attention paid to wellbeing by governments who fund these initiatives. However, such a large number of intervention types (16) within a relatively small number of studies (52) does not indicate a maturing of the field, where interventions are evaluated, and the evaluations used to further develop understanding. We propose that over time a mature field would generate a smaller number of robust, research-based interventions.

Further, our findings reveal that interventions are targeted at a range of groups over widely varying timeframes. Of interest to us is that only 13 out of 52 interventions are working with the whole school. The majority of interventions target a class or particular group of students. The studies do not consistently report on participants. While some report numbers of students, others report numbers of schools, others still describe numbers of parents or families. This inconsistency is interesting to note and adds complexity when attempting to compare findings across studies. Further, overall, only 20 of the interventions had an implementation time of one year or more. The remainder (32 interventions) ran for under one year to as little as four or five sessions. The dominance of small group, short term interventions is disturbing. From a practitioner perspective, to derive successful outcomes from a wellbeing intervention, it is essential to build a whole school shared definition and understanding of the wellbeing construct, before moving to the implementation stage. This shared understanding leads to a culture of wellbeing in a school community capable of

strengthening intervention outcomes. Such development takes time. While recognising that activity in a field of research is positive, we consider that it is important to reflect on progress to date so that further development can be based on evidence-based practice. It is important to understand that for schools to address wellbeing in a meaningful, sustainable way, time needs to be allocated for the whole school community to work together to develop their understanding of research-based characteristics and components of wellbeing. This shared understanding is foundational to embedding wellbeing in pedagogy and enacting school wide wellbeing practices and programs, however, the studies examined for this review do not report on such practices.

Lastly, in considering the types of outcomes that can be attributed to school-based wellbeing interventions, these are difficult to compare, similar to comparing apples with oranges. Our findings reveal that many of the studies are designed to impact single, study attributed components of wellbeing such as resilience, life satisfaction, self-efficacy, depression or stress. It is important to understand that, based on a holistic understanding of wellbeing, the components or characteristics of wellbeing are complex and often intertwined. From a research perspective, it is not possible to build strong research-based evidence from studies that measure different components based on varied understandings. For research to have a strong impact on further development of wellbeing, there is a need to clearly define wellbeing and/or the wellbeing component of interest, before designing, implementing and evaluating the study. The absence of a robust sequence compromises the reliability of the findings of the research. In the absence of a clear definition and research sequence, how can we be assured that, for example, increased self-efficacy equals increased wellbeing (Shoshani & Steinmetz, 2014).

In summary, all schools are encouraged to address wellbeing through evidence-based wellbeing interventions. This review highlights that the evidence to support current wellbeing interventions in schools is not as robust as assumed by schools. Instead, we find the interventions offer wide variations in definitions, are not based on valid and trustworthy evidence and outcomes. The consequence is that such variations compromise development of wellbeing understanding and school based interventions that can have a positive long-term impact. This highlights the need for further research to consolidate understanding of wellbeing and provide solid research evidence to inform further development of school wellbeing interventions.

Limitations of the Research

The 52 journal articles included in this study represent a limited sample of the literature published on wellbeing interventions in schools. The inclusion and exclusion criteria used were chosen to ensure this review provided a useful overview of interventions being used in schools to enhance student wellbeing but limited the sample to a manageable size. The need for continuous conversations between the authors to clarify the categorisation of articles and identify intervention articles will have an impact on the replicability of the review. The authors chose to exclude grey literature to ensure that the articles only included reports of original research projects. Keeping the literature sample to a manageable size also influenced this decision. Although the systematic literature review method provides consistency and reliability, author preconceptions may still be relevant. In this study, the first

author's possible bias was mitigated by questioning by the second and third authors as per the PRISMA guidelines (Pickering & Byrne, 2014).

Conclusion

The findings of this literature review raise many questions about the implementation of wellbeing interventions in schools. In the literature presented, there is no agreed definition or understanding of wellbeing, despite its popularity in research and schools today. The broad range of interventions being researched demonstrates a lack of maturity in the field. The variety of intervention outcomes further confuses the topic, making it difficult to compare studies. Moving forward, there is a need for further research to develop clearer definitions, more robust interventions and measuring methods for interventions aimed at improving school community wellbeing. The authors of this article have highlighted a rhetoric-reality gap between evidence-based practice and the reality of interventions currently implemented in schools with the aim to provide a conduit for further research that will support the mental health and wellbeing of Australian youth.

References

- Adler, A. (2017). Positive Education: Educating for academic success and for a fulfilling life. *Papeles del Psicólogo*, 38(1), 50-57. doi:10.23923/pap.psicol2017.2821
- Ahonen, A., Kurtakko, K., & Sohlman, E. (2007). *School, culture and well-being*. Retrieved from Rovaniemi: <http://www.arctichildren.net/loader.aspx?id=ea6dd7d5-12fe-4586-8c1f-5abc6cc9d5a4>
- Allen, K., Marlow, R., Edwards, V., Parker, C., Rodgers, L., Ukoumunne, O. C., Seem, E.C., Hayes, R., Price, A. & Ford, T. (2017). 'How I Feel About My School': The construction and validation of a measure of wellbeing at school for primary school children. *Clinical Child Psychology and Psychiatry*, 23(1), 25-41. doi:10.1177/1359104516687612
- Anderson, S. (2005). The relationship between student psychological wellbeing, behaviour and educational outcomes : a lesson from the MindMatters Plus demonstration schools. *Australian Journal of Guidance and Counselling*, 15(2), 235-240.
- Anderson, S., & Doyle, M. (2005). Developing community partnerships to support student wellbeing : what have we learned from the MindMatters Plus demonstration schools. *Australian Journal of Guidance and Counselling*, 15(2), 228-234.
- Atkinson, S., & Robson, M. (2012). Arts and health as a practice of liminality: managing the spaces of transformation for social and emotional wellbeing with primary school children. *Health & place*, 18(6), 1348-1355.
- Atkinson, S., & Rubidge, T. (2013). Managing the spatialities of arts-based practices with school children: An inter-disciplinary exploration of engagement, movement and well-being. *Arts & Health: An International Journal of Research, Policy and Practice*, 5(1), 39-50. doi:10.1080/17533015.2012.693938
- Bache, I., Reardon, L., & Anand, P. (2016). Wellbeing as a Wicked Problem: Navigating the Arguments for the Role of Government. *Journal of Happiness Studies*, 17(3), 893-912. doi:10.1007/s10902-015-9623-y
- Barrett, P. M., Antichich, S., & Spencer, S. J. E. (2007). Boosting children's well-being. *Educating Young Children*, 13(3), 18-20.
- Beem, A. L., & Brugman, D. (1986). The effects of values development lessons on pupil's well-being, pleasure in school, mutual relationships, and on pupils' valuational behavior during classroom dialogues. *Theory and Research in Social Education*, 14(2), 97-112.
- Bernard, M. E., & Walton, K. (2011). The effect of You Can Do It! Education in six schools on student perceptions of wellbeing, teaching learning and relationships. *Journal of Student Wellbeing*, 5(1), 22-37.
- Besançon, M., Fenouillet, F., & Shankland, R. (2015). Influence of school environment on adolescents' creative potential, motivation and well-being. *Learning and Individual Differences*, 43, 178-184. doi: 10.1016/j.lindif.2015.08.029
- Beyond Blue. (2018). Be You. Retrieved from <https://beyou.edu.au/>
- Bond, L., Patton, G., Glover, S., Carlin, J. B., Butler, H., Thomas, L., & Bowes, G. (2004). The Gatehouse Project: Can a multilevel school intervention affect emotional wellbeing and health risk behaviours? *Journal of Epidemiology and Community Health*, 58(12), 997-1003. doi:10.1136/jech.2003.009449
- Boniwell, I., Osin, E. N., & Martinez, C. (2016). Teaching happiness at school: Non-randomised controlled mixed-methods feasibility study on the effectiveness of Personal Well-Being Lessons. *The Journal of Positive Psychology*, 11(1), 85-98. doi: 10.1080/17439760.2015.1025422
- Bowser, G. (2012). A journey towards wellbeing. *Professional Educator*, 11(2), 28-29.

- Carmen, B., Waycott, L., & Smith, K. (2011). Rock Up: An initiative supporting students' wellbeing in their transition to secondary school. *Children and Youth Services Review, 33*(1), 167-172. doi:10.1016/j.childyouth.2010.08.030
- Carta, M. G., Di Fiandra, T., Rampazzo, L., Contu, P., & Preti, A. (2015). An overview of international literature on school interventions to promote mental health and well-being in children and adolescents. *Clinical Practice and Epidemiology in Mental Health, 11*, 16-20.
- Cefai, C., & Camilleri, L. (2015). A Healthy Start: Promoting Mental Health and Well-Being in the Early Primary School Years. *Emotional & Behavioural Difficulties, 20*(2), 133-152.
- Chen, M. L., Lou, S. J., Tsai, W. F., & Tsai, C. C. (2014). A study of the impact of horticultural activities on primary school children's self-concept, well-being and effectiveness. *Journal of Baltic Science Education, 13*(5), 637-649.
- Chodkiewicz, A. R., & Boyle, C. (2017). Positive psychology school - based interventions: A reflection on current success and future directions. *Review of Education, 5*(1), 60-86. doi:10.1002/rev3.3080
- Clarke, A. M., Bunting, B., & Barry, M. M. (2014). Evaluating the Implementation of a School-Based Emotional Well-Being Programme: A Cluster Randomized Controlled Trial of Zippy's Friends for Children in Disadvantaged Primary Schools. *Health Education Research, 29*(5), 786-798.
- Clarke, A. M., Sixsmith, J., & Barry, M. M. (2015). Evaluating the Implementation of an Emotional Wellbeing Programme for Primary School Children Using Participatory Approaches. *Health Education Journal, 74*(5), 578-593.
- Cohen, J. (2006). Social, emotional, ethical, and academic education: Creating a climate for learning, participation in democracy, and well-being. *Harvard Educational Review, 76*(2), 201-237.
- Commission for Children and Young People, N. (2009). Ask the children : overview of children's understandings of well-being. *Redress, 18*(1), 14-20.
- Crooke, A. H. D., & McFerran, K. S. (2014). Recommendations for the investigation and delivery of music programs aimed at achieving psychosocial wellbeing benefits in mainstream schools. *Australian Journal of Music Education*(1), 15-37.
- Damon, A. (2015). Transition to student voice : Project based learning for wellbeing. *Connect*(211), 6-14.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: an introduction. *Journal of Happiness Studies, 9*(1), 1-11. doi:10.1007/s10902-006-9018-1
- Deighton, J., Croudace, T., Fonagy, P., Brown, J., Patalay, P., & Wolpert, M. (2014). Measuring mental health and wellbeing outcomes for children and adolescents to inform practice and policy: a review of child self-report measures. *Child and adolescent psychiatry and mental health, 8*(1), 14-14. doi:10.1186/1753-2000-8-14
- Department for Education, (2016). Wellbeing Framework for Learning and Life. Government of South Australia. Retrieved from <https://www.education.sa.gov.au/doc/wellbeing-learning-and-life-framework>
- Department of Education and Training, (2018). The Australian Student Wellbeing Framework. Retrieved from <https://www.education.gov.au/national-safe-schools-framework-0>
- Department of Education and Training Queensland. (2018). Learning and Wellbeing Framework. Retrieved from <https://education.qld.gov.au/initiativesstrategies/Documents/student-learning-wellbeing-framework.pdf>
- Dietrich, T., Rundle-Thiele, S., Schuster, L., & Connor, J. P. (2016). A systematic literature review of alcohol education programmes in middle and high school settings (2000-2014). *Health Education, 116*(1), 50-68. doi:10.1108/HE-03-2014-0042
- Dix, K. L., Slee, P. T., Lawson, M. J., & Keeves, J. P. (2012). Implementation quality of whole - school mental health promotion and students' academic performance. *Child and Adolescent Mental Health, 17*(1), 45-51. doi:10.1111/j.1475-3588.2011.00608.x
- Dodge, R., Daly, A. P., Huyton, J., & Sanders, L. D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing, 2*(3).

- Duckett, P., Sixsmith, J., & Kagan, C. (2008). Researching pupil well-being in UK secondary schools: Community psychology and the politics of research. *Childhood: A Global Journal of Child Research*, 15(1), 89-106. doi:10.1177/0907568207086838
- Durlak, J. A., & DuPre, E. P. (2008). Implementation Matters: A Review of Research on the Influence of Implementation on Program Outcomes and the Factors Affecting Implementation. *American Journal of Community Psychology*, 41(3), 327-350. doi:10.1007/s10464-008-9165-0
- Ebesutani, C., Bernstein, A., Martinez, J. I., Chorpita, B. F., & Weisz, J. R. (2011). The Youth Self Report: Applicability and Validity Across Younger and Older Youths. *Journal of Clinical Child & Adolescent Psychology*, 40(2), 338-346. doi:10.1080/15374416.2011.546041
- Education Council, (2018). Australian Student Wellbeing Framework. Retrieved from https://www.studentwellbeinghub.edu.au/docs/default-source/aswf_booklet-pdf.pdf?sfvrsn=0
- Elfrink, T. R., Goldberg, J. M., Schreurs, K. M. G., Bohlmeijer, E. T., & Clarke, A. M. (2017). Positive educative programme: A whole school approach to supporting children's well-being and creating a positive school climate: a pilot study. *Health Education*, 117(2), 215.
- Erhart, M., Ottova, V., Gaspar, T., Jericek, H., Schnohr, C., Alikasifoglu, M., . . . Erginoz, E. (2009). Measuring mental health and well-being of school-children in 15 European countries using the KIDSCREEN-10 Index. *International Journal of Public Health*, 54(SUPPL. 2), S160-S166. doi:10.1007/s00038-009-5407-7
- Ereaut, G. and R. Whiting (2008). What do we mean by 'wellbeing'?: and why might it matter? Retrieved from <http://dera.ioe.ac.uk/8572/1/dcsf-rw073%20v2.pdf>
- Faulkner, S., Wood, L., Ivery, P., & Donovan, R. (2012). It is not just music and rhythm : evaluation of a drumming-based intervention to improve the social wellbeing of alienated youth. *Children Australia*, 37(1), 31-39.
- Fraillon, J. (2004). "Measuring student well-being in the context of Australian schooling: Discussion paper." *The Australian Council for Educational Research* 2: 1-54.
- Frydenberg, E. (2009). The opportunities that the middle years afford us : enhancing student social and emotional wellbeing and learning. *Professional Voice*, 6(3), 25-29.
- Frydenberg, E., Care, E., Freeman, E., & Chan, E. (2009). Interrelationships between coping, school connectedness and wellbeing. *Australian Journal of Education*, 53(3), 261-276.
- Galton, M., & Page, C. (2015). The Impact of Various Creative Initiatives on Wellbeing: A Study of Children in English Primary Schools. *Cambridge Journal of Education*, 45(3), 349-369.
- Gillett-Swan, J. K. and J. Sargeant (2015). "Wellbeing as a Process of Accrual: Beyond Subjectivity and Beyond the Moment." *Social Indicators Research* 121(1): 135-148.
- Graetz, B., Littlefield, L., Trinder, M., Dobia, B., Souter, M., Champion, C., . . . Cummins, R. (2008). KidsMatter: A Population Health Model to Support Student Mental Health and Well-being in Primary Schools. *International Journal of Mental Health Promotion*, 10(4), 13-20. doi:10.1080/14623730.2008.9721772
- Graham, A., Fitzgerald, R., Powell, M. A., Thomas, N., Anderson, D. L., White, N., & Simmons, C. A. (2014). *Improving approaches to wellbeing in schools: what role does recognition play? Final report: volume two* (0980382335). Retrieved from Lismore, NSW: http://epubs.scu.edu.au/educ_pubs/1354/
- Gray, J., & Hackling, M. W. (2009). Wellbeing and retention : a senior secondary student perspective. *Australian Educational Researcher*, 36(2), 119-145.
- Hall, S. (2010). Supporting Mental Health and Wellbeing at a Whole-School Level: Listening to and Acting upon Children's Views. *Emotional & Behavioural Difficulties*, 15(4), 323-339.
- Hallam, S. (2009). An Evaluation of the Social and Emotional Aspects of Learning (SEAL) Programme: Promoting Positive Behaviour, Effective Learning and Well-Being in Primary School Children. *Oxford Review of Education*, 35(3), 313-330.
- Hancock, K. J., & Zubrick, S. R. (2015). *Children and young people at risk of disengagement from school*. Retrieved from <https://www.cyp.wa.gov.au/media/1422/report-education-children-at-risk-of-disengaging-from-school-literature-review.pdf>
- Haraldsson, K. S., Lindgren, E. C. M., Fridlund, B. G. A., Baigi, A. M. A. E., Lydell, M. C., & Marklund, B. R. G. (2008). Evaluation of a school-based health promotion programme for

- adolescents aged 12-15 years with focus on well-being related to stress. *Public Health*, 122(1), 25-33. doi:10.1016/j.puhe.2007.04.016
- Harrison, C., & van Vliet, H. (2013). Learning together : an innovative parent education project to facilitate children's learning, wellbeing and resilience. *International Research in Early Childhood Education*, 4(1), 35-52.
- Houlston, C., Smith, P. K., & Jessel, J. (2011). The Relationship between Use of School-Based Peer Support Initiatives and the Social and Emotional Well-Being of Bullied and Non-Bullied Students. *Children & Society*, 25(4), 293-305.
- Huppert, F. A. (2009). "Psychological Well-being: Evidence Regarding its Causes and Consequences." *Applied psychology : health and well-being* 1(2): 137-164.
- Huppert, F. A., & Johnson, D. M. (2010). A controlled trial of mindfulness training in schools: The importance of practice for an impact on well-being. *The Journal of Positive Psychology*, 5(4), 264-274. doi:10.1080/17439761003794148
- Kendal, S., Callery, P., & Keeley, P. (2011). The feasibility and acceptability of an approach to emotional wellbeing support for high school students. *Child and Adolescent Mental Health*, 16(4), 193-200. doi:10.1111/j.1475-3588.2011.00602.x
- KidsMatter. (2013). KidsMatter: A Whole School Approach. Retrieved from <https://www.kidsmatter.edu.au/primary/a-whole-school-approach>
- Klatte, M., Hellbruck, J., Seidel, J., & Leistner, P. (2010). Effects of Classroom Acoustics on Performance and Well-Being in Elementary School Children: A Field Study. *Environment and Behavior*, 42(5), 659-692.
- Konu, A., & Rimpelä, M. (2002). Well-being in schools: a conceptual model. *Health Promotion International*, 17(1), 79-87. doi:10.1093/heapro/17.1.79
- Lambert, C. (2014). Developing Learning at St Mary's Secondary School, UK: Improving the Motivation and Well-Being of Students. *Gifted Education International*, 30(1), 47-57.
- La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on wellbeing in research and practice. *International Journal of Wellbeing*, 3(1), 116 - 125. doi:10.5502/ijw.v3i1.7
- Lau, N. S., & Hue, M. T. (2011). Preliminary outcomes of a mindfulness-based programme for Hong Kong adolescents in schools: Well-being, stress and depressive symptoms. *International Journal of Children's Spirituality*, 16(4), 315-330. doi:10.1080/1364436X.2011.639747
- Leary, H. (2000). How to enhance school culture, student achievement and psychological well-being. *Education Horizons*, 6(3), 32-34,36.
- Lee, A., Cheng, F. F. K., Fung, Y., & St. Leger, L. (2006). Can health promoting schools contribute to the better health and wellbeing of young people? The Hong Kong experience. *Journal of Epidemiology and Community Health*, 60(6), 530-536. doi:10.1136/jech.2005.040121
- Levin, K., Inchley, J., Currie, D., & Currie, C. (2012). Subjective Health and Mental Well-Being of Adolescents and the Health Promoting School: A Cross-Sectional Multilevel Analysis. *Health Education*, 112(2), 170-184.
- Lupton, D., & Williamson, B. (2017). The datified child: The dataveillance of children and implications for their rights. *New Media & Society*, 19(5), 780-794. doi:10.1177/1461444816686328
- Maller, C. (2005). Hands-on contact with nature in primary schools as a catalyst for developing a sense of community and cultivating mental health and wellbeing. *Eingana*, 28(3), 16-21.
- McGrath, H. & Noble, T. (2003). BOUNCE BACK! A classroom resiliency program. (Teacher's Handbook. Teacher's Resource Books, Level 1: K-2; Level 2: Yrs 3-4; Level 3: Yrs 5-8). Pearson Education: Sydney
- McLellan, R., & Steward, S. (2015). Measuring Children and Young People's Wellbeing in the School Context. *Cambridge Journal of Education*, 45(3), 307-332.
- Miller, S., Connolly, P., & Maguire, L. K. (2013). Wellbeing, academic buoyancy and educational achievement in primary school students. *International Journal of Educational Research*, 62, 239-248. doi:10.1016/j.ijer.2013.05.004
- Mission Australia. (2017). *Youth mental health report; Youth Survey 2012-16*. Retrieved from https://blackdoginstitute.org.au/docs/default-source/research/evidence-and-policy-section/2017-youth-mental-health-report_mission-australia-and-black-dog-institute.pdf?sfvrsn=6

- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The, P. G. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLOS Medicine*, 6(7), e1000097. doi:10.1371/journal.pmed.1000097
- New South Wales Department of Education and Communities (2015). The Wellbeing Framework for Schools. Retrieved from https://www.det.nsw.edu.au/wellbeing/about/16531_Wellbeing-Framework-for-schools_Accessible.pdf
- Noggle, J. J., Steiner, N. J., Minami, T., & Khalsa, S. B. S. (2012). Benefits of yoga for psychosocial well-being in a US high school curriculum: A preliminary randomized controlled trial. *Journal of Developmental and Behavioral Pediatrics*, 33(3), 193-201. doi:10.1097/DBP.0b013e31824afdc4
- Patton, G. C., Bond, L., Carlin, J. B., Thomas, L., Butler, H., Glover, S., . . . Bowes, G. (2006). Promoting social inclusion in schools: A group-randomized trial of effects on student health risk behavior and well-being. *American Journal of Public Health*, 96(9), 1582-1587. doi:10.2105/AJPH.2004.047399
- Pickering, C., & Byrne, J. (2014). The Benefits of Publishing Systematic Quantitative Literature Reviews for PhD Candidates and Other Early-Career Researchers. *Higher Education Research and Development*, 33(3), 534-548. doi:10.1080/07294360.2013.841651
- Powell, M. A., & Graham, A. (2017). Wellbeing in schools: Examining the policy–practice nexus. *The Australian Educational Researcher*, 44(2), 213. doi:10.1007/s13384-016-0222-7
- Puolakka, K., Haapasalo-Pesu, K. M., Konu, A., Åstedt-Kurki, P., & Paavilainen, E. (2014). Mental Health Promotion in a School Community by Using the Results From the Well-Being Profile: An Action Research Project. *Health Promotion Practice*, 15(1), 44-54. doi:10.1177/1524839912464876
- Rath, T. and J. Harter (2010) The economics of wellbeing. Gallup Press. Retrieved from <https://www.gallup.com/services/177050/economics-wellbeing.aspx>
- Roffey, S. (2009). Why school and student wellbeing matters. *Independence*, 34(2), 10/12-13.
- Ruini, C., Belaise, C., Brombin, C., Caffo, E., & Fava, G. A. (2006). Well-Being Therapy in School Settings: A Pilot Study. *Psychotherapy and Psychosomatics*, 75(6), 331-336. doi:10.1159/000095438
- Ruini, C., Ottolini, F., Tomba, E., Belaise, C., Albieri, E., Visani, D., Offidani, E., Caffo, E. & Fava, G. A. (2009). School intervention for promoting psychological well-being in adolescence. *Journal of Behavior Therapy and Experimental Psychiatry*, 40(4), 522-532. doi:10.1016/j.jbtep.2007.02.001
- Sar, B. K., & Wulff, D. P. (2003). Family Builders Approach: Enhancing the Well-Being of Children through Family-School Partnerships. *Children & Schools*, 25(4), 241-251. doi:10.1093/cs/25.4.241
- Seligman, M. E. P. (2012). *Flourish: A visionary new understanding of happiness and well-being*. North Sydney: Random House Australia Pty Ltd.
- Seligman, M. E. P., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: positive psychology and classroom interventions. *Oxford Review of Education*, 35(3), 293-311. doi:10.1080/03054980902934563
- Shoshani, A., & Steinmetz, S. (2014). Positive psychology at school: A school-based intervention to promote adolescents' mental health and well-being. *Journal of Happiness Studies*, 15(6), 1289-1311. doi:10.1007/s10902-013-9476-1
- Simões, F., & Alarcão, M. (2014). Promoting well-being in school-based mentoring through basic psychological needs support: Does it really count? *Journal of Happiness Studies*, 15(2), 407-424. doi:10.1007/s10902-013-9428-9
- Slee, P. T., Dix, K., & Askill-Williams, H. (2011). Whole-school mental health promotion in Australia. *International Journal of Emotional Education*, 3(2), 37-49.
- Slee, P. T., & Skrzypiec, G. (2016). *Well-being, positive peer relations and bullying in school settings*. Cham, Switzerland: Springer International Publishing.
- Smith, T. S. J., & Reid, L. (2017). Which 'being' in wellbeing? Ontology, wellness and the geographies of happiness. *Progress in Human Geography*, 42(6), 807 - 829. doi:10.1177/0309132517717100

- Spratt, J. (2016). Childhood wellbeing: what role for education? *British Educational Research Journal*, 42(2), 223-239. doi:10.1002/berj.3211
- Spratt, J. (2017). *Wellbeing, Equity and Education: A Critical Analysis of Policy Discourses of Wellbeing in Schools*. Cham: Springer International Publishing.
- Standage, M., Cumming, S. P., & Gillison, F. B. (2013). A cluster randomized controlled trial of the best you can be intervention: Effects on the psychological and physical well-being of school children. *BMC Public Health*, 13(1). doi:10.1186/1471-2458-13-666
- Suldo, S., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective well-being, psychopathology, and mental health status yielded from a dual factor model. *The Journal of Positive Psychology*, 6(1), 17-30. doi:10.1080/17439760.2010.536774
- Suldo, S. M., Hearon, B. V., Bander, B., McCullough, M., Garofano, J., Roth, R. A., & Tan, S. Y. (2015). Increasing Elementary School Students' Subjective Well-Being through a Classwide Positive Psychology Intervention: Results of a Pilot Study. *Contemporary School Psychology*, 19(4), 300-311.
- Taylor, M., Gillies, R. M., & Ashman, A. F. (2009). Cognitive training, conflict resolution and exercise : effects on young adolescents' wellbeing. *Australian Journal of Guidance and Counselling*, 19(2), 131-149.
- Thomas, T. (2008). Wellbeing inside and outside. *EQ Australia*, 46-47.
- Tomba, E., Belaise, C., Ottolini, F., Ruini, C., Bravi, A., Albieri, E., Rafanelli, C., Caffo, E. & Fava, G. A. (2010). Differential effects of well-being promoting and anxiety-management strategies in a non-clinical school setting. *Journal of Anxiety Disorders*, 24(3), 326-333. doi:10.1016/j.janxdis.2010.01.005
- Veltro, F., Ialenti, V., Iannone, C., Bonanni, E., & García, M. A. M. (2015). Promoting the psychological well-being of Italian youth: A pilot study of a high school mental health program. *Health Promotion Practice*, 16(2), 169-175. doi:10.1177/1524839914533965
- Vernon, M. (2008). *Wellbeing*. Stocksfield, UK: Acumen Publishing Limited.
- Victorian Curriculum and Assessment Authority, (2016). Wellbeing Practice Guide. Retrieved from <https://www.vcaa.vic.edu.au/Documents/earlyyears/EYWellbeingPracticeGuide.pdf>
- Vostanis, P., Humphrey, N., Fitzgerald, N., Deighton, J., & Wolpert, M. (2013). How do schools promote emotional well-being among their pupils? Findings from a national scoping survey of mental health provision in English schools. *Child and Adolescent Mental Health*, 18(3), 151-157. doi:10.1111/j.1475-3588.2012.00677.x
- Vranda, M. N. (2015). Promotion of mental health and well-being of adolescents in schools - A NIMHANS model. *African Journal of Psychiatry (South Africa)*, 18(5). doi:10.4172/2378-5756.1000303
- Waters, L. (2011). A Review of School-Based Positive Psychology Interventions. *The Australian educational and developmental psychologist*, 28(02), 75-90. doi:10.1375/aedp.28.2.75
- Waters, L. (2017). Visible Wellbeing in Schools: The powerful role of instructional leadership. *Australina Educational Leader*, 39(1), 6 - 10.
- Welsh, J., Strazdins, L., Ford, L., Friel, S., O'Rourke, K., Carbone, S., & Carlon, L. (2015). Promoting equity in the mental wellbeing of children and young people: a scoping review. *Health Promotion International*, 30(suppl_2), ii36-ii76. doi:10.1093/heapro/dav053
- Wendt, S., Hipps, J., Abrams, A., Grant, J., Valosek, L., & Nidich, S. (2015). Practicing Transcendental Meditation in High Schools: Relationship to Well-Being and Academic Achievement among Students. *Contemporary School Psychology*, 19(4), 312-319.
- Wolpert, M., Humphrey, N., Belsky, J., & Deighton, J. (2013). Embedding Mental Health Support in Schools: Learning from the Targeted Mental Health in Schools (TaMHS) National Evaluation. *Emotional & Behavioural Difficulties*, 18(3), 270-283. doi:10.1080/13632752.2013.819253
- World Health Organisation. (2014). Mental health: a state of well-being. Retrieved from http://www.who.int/features/factfiles/mental_health/en/
- Wyn, J., Cahill, H., Holdsworth, R., Rowling, L., & Carson, S. (2000). Mindmatters, a whole-school approach to promoting mental health and wellbeing. *Youth Suicide Prevention Bulletin*(4), 26-32.

Young, W., Davis, M., McNeill, I. M., Malhotra, B., Russell, S., Unsworth, K., & Clegg, C. W. (2015). Changing Behaviour: Successful Environmental Programmes in the Workplace. *Business Strategy and the Environment*, 24(8), 689-703. doi:10.1002/bse.1836 .

Appendix A

Table 1 Characteristics of interventions as reported by authors

** indicates articles that include explicit definitions of wellbeing*

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
*Maller (2005)	Australia	Nature based	Primary	Not reported	Not reported	500 schools	Combination of additional terms and absence of symptoms	Social wellbeing, emotional wellbeing, spiritual wellbeing
*Ruini (2006)	Italy	Positive psychology	Secondary	Selected classes	4 sessions	111 students	Defined as a combination of hedonic and eudaimonic wellbeing	N/A
*Ruini (2009)	Italy	Positive psychology	Years 9, 10	Selected classes	4 or 5 lessons	227 students	Defined as a combination of hedonic and eudaimonic wellbeing	N/A
*Shoshani (2014)	Israel	Positive psychology	Years 7, 8, 9	Year levels	2 years	537 students	Defined as subjective wellbeing	Psychological wellbeing
*Simões (2014)	Portugal	School-based mentoring	Middle school	Selected students	6 months	157 students	Subjective wellbeing	N/A
*Standage (2013)	United Kingdom	Positive psychology	Years 7, 8	Year levels	11 sessions	711 students	Defined as a combination of hedonic and eudaimonic wellbeing	N/A

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
Anderson (2005)	Australia	Social emotional learning	Secondary	Whole school	Ongoing	17 schools	Presence of symptoms	N/A
Anderson & Doyle (2005)	Australia	Community mental health	Secondary	Whole school	Ongoing	17 schools	None	Psychological wellbeing
*Atkinson (2013)	United Kingdom	Arts based	Year 1	Class level	1 ½ days	30 students	Defined as relational and situational	Emotional wellbeing, social wellbeing
Atkinson (2012)	United Kingdom	Arts based	Primary	Selected students	2 years	Approx. 160 students	None	Emotional wellbeing, social wellbeing, personal wellbeing
Barrett (2007)	Australia	Social emotional learning	Preparatory year	Selected classes	ongoing	Not reported	Absence of symptoms	N/A
Beem (1986)	USA	Social emotional learning	Secondary	Selected classes	At least 10 lessons	850 students	None	Inner wellbeing
Bernard (2011)	Australia	Social emotional learning	Primary	Whole school	1 year	349 students	Absence of symptoms	N/A
*Besançon (2015)	France	School context (type of school)	Year 7	Year level	3 weeks	131 students	Subjective wellbeing	N/A
Bond (2004)	Australia	Social emotional learning	Year 8	Whole school	15 to 20 hours	2678 students	None	Emotional wellbeing
*Boniwell (2016)	United Kingdom	Positive psychology	Year 7	Selected classes	18 lessons	96 students	Defined as subjective wellbeing	N/A
Bowser (2012)	Australia	Positive psychology	Year 9	Year level	Ongoing	Not reported	None	Personal wellbeing

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
Carmen (2011)	Australia	Transition to secondary school	Year 5, 6, 7	Selected students	6 weeks	13 students	None	Social wellbeing, academic wellbeing, personal wellbeing
*Chen (2014)	China	Nature based	Year 3, 4, 5	Selected students	3 months	23 students	Subjective wellbeing	N/A
Clarke (2014)	Ireland	Social emotional learning	Year 1 in 44 schools	Selected classes	1 year	766 students	None	Emotional wellbeing
Clarke (2015)	Ireland	Social emotional learning	Year 1 in 44 schools	Selected classes	1 year	161 students	None	Emotional wellbeing, social wellbeing
Crooke (2014)	Australia	Arts based	Secondary	Class level and selected students	4 or 5 sessions	20 students	None	National wellbeing
Damon (2015)	Australia	Transition to secondary school	Year 7	Selected students	1 year	28 students	None	N/A
*Duckett (2008)	United Kingdom	Community mental health	Secondary	Whole school	Not reported	557 students	Defined as interaction between individual and environment	N/A
Faulkner (2012)	Australia	Arts based	Years 6, 7	Selected students	10 sessions	60 students	None	N/A
*Frydenberg (2009) (sole author)	Australia	Social emotional learning	Year 8	Year level	10 Lessons	Not reported	Accumulation of resources to meet life challenges	N/A

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
*Galton (2015)	United Kingdom	Arts based	2 Primary schools	Whole school	2 days	2 whole schools	Defined as a combination of hedonic and eudaimonic wellbeing	Personal wellbeing
Hallam (2009)	United Kingdom	Social emotional learning	Primary	Whole school	3 years	172 schools	None	Emotional wellbeing
Haraldsson (2008)	Sweden	Alternative therapy	Years 6, 7, 8	Whole school	1 year	153 students	None	N/A
Harrison (2013)	Australia	Parent education	Preparatory year	Parent delivery	1 day intensive or 3 sessions	124 parents	None	Subjective wellbeing
Houlston (2011)	United Kingdom	Peer support	Year 7	Year level	2 years	3 schools, 400 students	None	N/A
*Huppert (2010)	United Kingdom	Alternative therapy	Secondary	Class level	4 weeks	173 students	Subjective wellbeing	N/A
Kendal (2011)	United Kingdom	Symptom based	Secondary	Selected students	9 months	23 students	Absence of symptoms	N/A
Klatte (2010)	Germany	School context (classroom acoustics)	Primary	Class level	1 week	487 students, 21 classrooms	None	Emotional wellbeing
Lambert (2014)	United Kingdom	Mindset	Year 8	Year level	2 years	Not reported	None	Mental wellbeing
*Lau (2011)	Hong Kong	Alternative therapy	Secondary	Invited students	6 weeks	48 students	Subjective wellbeing	N/A

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
Leary (2000)	Australia	Social emotional learning	Years 5, 6	Whole school	1 year	Not reported	None	Psychological wellbeing
Lee (2006)	Hong Kong	Health promotion	Primary, secondary	Year level	2 years	4 primary, 5 secondary schools	None	N/A
*Levin (2012)	Scotland	Health promotion	Secondary	Whole school	Ongoing	168 secondary schools	Subjective wellbeing	N/A
Noggle (2012)	USA	Alternative therapy	Years 11, 12	Class level	10 weeks	51 students	None	Emotional wellbeing, social wellbeing
Patton (2006)	Australia	Social emotional learning	Year 8	Year level	3 years	7594 students	Absence of symptoms	Emotional wellbeing
Puolakka (2014)	Finland	Mental health promotion	Year 7, 8, 9	Whole school	Not reported	423 students	No definition provided	N/A
Sar (2003)	USA	Parent education	Primary	Parent delivery	1 to 24 months	50 families	No definition provided	N/A
*Suldo (2015)	USA	Positive psychology	Year 4	Selected students	11 sessions	12 students	Defined as subjective wellbeing	Psychological wellbeing
Taylor (2009)	Australia	Cognitive training	Year 6, 7, 8	Selected students	1 month	31 students	Absence of symptoms	N/A

First author and date	Country	Type of intervention	School/Year level	Targeted group	Timeframe	Participants	Definition	Additional terms used
Thomas (2008)	Australia	Health Promotion	Year 5	Year level	7 weeks	11 classes	None	Subjective wellbeing, objective wellbeing, psychological wellbeing
Tomba (2010)	Italy	Symptom based	Middle school	Class level	6 weeks	162 students	None	Psychosocial wellbeing
Veltro (2015)	Italy	Social emotional learning	Secondary	Selected classes	6 months	79 students	None	N/A
Vostanis (2013)	United Kingdom	Symptom based	Primary, secondary	Selected students	Ongoing	599 primary, 137 secondary schools	None	Psychosocial wellbeing
Vranda (2015)	India	Mental health promotion	Secondary	Whole school	2 months	299 teachers	None	Eudaimonic wellbeing, hedonic wellbeing
Wendt (2015)	USA	Alternative therapy	Year 9	Year level	1 year	141 students	None	Emotional wellbeing, social wellbeing
Wyn (2000)	Australia	Community mental health	Secondary	Whole school	1 year	24 schools	None	Subjective wellbeing, eudaimonic wellbeing, hedonic wellbeing