



UNIVERSITY OF  
OXFORD

Wellbeing  
Research  
Centre



# WELLBEING IN EDUCATION IN CHILDHOOD & ADOLESCENCE

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Dr. Laura Taylor  
Prof. Jan-Emmanuel De Neve  
Luana DeBorst  
Devi Khanna

Wellbeing Research Centre  
University of Oxford  
in association with the  
International Baccalaureate Organisation



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Wellbeing Research Centre  
The University of Oxford

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[wellbeinghmc.ox.ac.uk](http://wellbeinghmc.ox.ac.uk)

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# AUTHORS

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## **Dr. Laura Taylor**

Laura is the Centre Manager and KSI Research Fellow at the Wellbeing Research Centre at the University of Oxford. Laura holds a Doctorate in Experimental Psychology and a Masters Degree in Research Methods from the University of Oxford. Her research focuses on child and adolescent mental health and wellbeing, and she has 15 years of experience teaching and conducting research in schools. Laura leads the Wellbeing in Childhood and Adolescence research stream at the Centre.

## **Prof. Jan-Emmanuel De Neve**

Jan is the Director of the Wellbeing Research Centre and Professor of Economics and Behavioural Science at the University of Oxford's Saïd Business School.

Jan's research has been published in academic outlets such as Science, Nature, The Review of Economics and Statistics, Journal of Political Economy, Psychological Science, The British Medical Journal, and The Proceedings of the National Academy of Sciences (PNAS). Jan has joined John Helliwell, Richard Layard, and Jeffrey Sachs as an Editor of the World Happiness Report. Jan obtained his PhD from the London School of Economics and was a Fulbright Scholar at Harvard University. His research and commentary regularly feature in the media, including in The Economist, the Financial Times, the Harvard Business Review, and on the BBC. Alongside his role at Saïd Business School, Jan is the KSI Fellow and Vice-Principal of Harris Manchester College at the University of Oxford.

## **Luana DeBorst**

Luana is a research assistant at the Wellbeing Research Centre specialising in wellbeing in education. Luana holds an MSc in International and Comparative Education from the University of Oxford and a Bachelor's Degree from Sarah Lawrence College.

## **Devi Khanna**

Devi has completed her MSc in International Social and Public Policy at the London School of Economics. Her research interests include education policy, wellbeing, and international development. Devi is reading for a doctorate in wellbeing in education.



# THE WELLBEING RESEARCH CENTRE

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The Wellbeing Research Centre is an interdisciplinary research centre dedicated to the study of wellbeing. The Centre is part of Harris Manchester College, at the University of Oxford. The Centre's founding partner is KSI Education.

Research at the Wellbeing Research Centre covers a range of topics, and has been published in leading academic journals. Publications have covered topics including: mental health and wellbeing in childhood and adolescence, scalable wellbeing interventions, mental health, wellbeing approaches to policy decisions, workplace wellbeing, social class and life satisfaction, and wellbeing scales and measurements.

The Wellbeing Research Centre is an academic partner and contributor to the World Happiness Report, published by the UN Sustainable Development Solutions Network.

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# CONTENTS

<b>0 EXECUTIVE SUMMARY</b>	<b>I-XIII</b>
<b>1 LITERATURE REVIEW</b>	<b>7</b>
<b>1.1 WELLBEING DEFINITIONS</b>	<b>10</b>
1.1.1 DEFINITIONS OF WELLBEING IN CHILDHOOD AND ADOLESCENCE	12
1.1.2 FRAMEWORKS AND DIMENSIONS OF WELLBEING	18
1.1.3 WHAT ARE THE POTENTIAL DEVELOPMENTAL DIFFERENCES IN WELLBEING AT DIFFERENT AGES?	20
1.1.4 KEY FINDINGS AND RECOMMENDATIONS	22
<b>1.2 THE GLOBAL STATE OF CHILD AND ADOLESCENT WELLBEING</b>	<b>24</b>
1.2.1 WELLBEING DURING THE COVID-19 PANDEMIC	25
1.2.2 KEY FINDINGS AND RECOMMENDATIONS	28
<b>1.3 WELLBEING IN SCHOOLS</b>	<b>30</b>
1.3.1 WHY FOCUS ON SCHOOLS?	30
1.3.2 WHY SHOULD SCHOOLS ENHANCE THE WELLBEING OF THEIR PUPILS?	31
1.3.3 KEY FINDINGS AND RECOMMENDATIONS	33
<b>1.4 DETERMINANTS OF CHILD WELLBEING</b>	<b>36</b>
1.4.1 MODELS OF CHILD AND ADOLESCENT WELLBEING	36
1.4.2 PUPIL WELLBEING	39
1.4.3 NEW FINDINGS FROM PISA (2018)	63
1.4.4 KEY FINDINGS AND RECOMMENDATIONS	72
<b>1.5 WHOLE-SCHOOL, UNIVERSAL, OR TARGETED INTERVENTIONS?</b>	<b>74</b>
1.5.1 TARGETED APPROACHES	75
1.5.2 UNIVERSAL APPROACHES	75
1.5.3 WHOLE-SCHOOL APPROACHES	76
1.5.4 ARE UNIVERSAL OR TARGETED INTERVENTIONS MORE EFFECTIVE?	77
1.5.5 KEY FINDINGS	78
<b>1.6 WELLBEING INTERVENTIONS</b>	<b>80</b>
1.6.1 PUPIL WELLBEING INTERVENTIONS	81
1.6.2 TEACHER WELLBEING	89
1.6.3 THE IMPORTANCE OF PROPER IMPLEMENTATION	91
1.6.4 KEY FINDINGS AND RECOMMENDATIONS	93
<b>1.7 WELLBEING MEASUREMENT IN SCHOOLS</b>	<b>94</b>
1.7.1 CORE MEASUREMENTS AND KEY PERFORMANCE INDICATOR (KPI)	95
1.7.2 BEYOND THE CORE MEASUREMENTS	98
1.7.3 BLUE-SKY THINKING AROUND WELLBEING MEASUREMENT	101
1.7.4 LINKING TO INTERNATIONAL DATA SETS	103
1.7.5 CHALLENGES	103
1.7.6 RECOMMENDATIONS	104
<b>1.8 NEXT STEPS</b>	<b>106</b>

---

<b>2 WELLBEING REFERENCE FRAMEWORK</b>	<b>111</b>
<b>2.1 THE FRAMEWORK</b>	<b>113</b>
2.1.1 HEALTH	114
2.1.2 PEOPLE	115
2.1.3 ENVIRONMENT	115
2.1.4 SKILLS	117
<b>2.2 PRINCIPLES</b>	<b>118</b>
<b>3 EXTERNAL STAKEHOLDER INSIGHTS</b>	<b>121</b>
<b>3.1 OVERVIEW</b>	<b>122</b>
<b>3.2 FINDINGS</b>	<b>124</b>
<b>4 REFERENCES AND SUPPLEMENTARY MATERIALS</b>	<b>131</b>
<b>4.1 REFERENCES</b>	<b>132</b>
<b>4.2 SUPPLEMENTARY MATERIALS</b>	<b>174</b>
4.2.1 LITERATURE REVIEW	175



WELLBEING IN SCHOOLS IN CHILDHOOD AND ADOLESCENCE

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# EXECUTIVE SUMMARY



# OVERVIEW

This scoping report was conducted by the Wellbeing Research Centre (University of Oxford) in collaboration with the International Baccalaureate Organisation (IBO). **The aim of the report was to investigate how wellbeing could be programmed across the IB curricula with a view to a new approach to wellbeing across the IBO by 2030.**

**The IBO have an opportunity to be pioneers in this area**, and the report gives a detailed overview of routes to progress that could be pursued and what effective action can be taken. This report gives IBO stakeholders a foundation in the wellbeing science of childhood and adolescence to build on across their programs and educational settings.

The report is structured in three parts: a literature review, the wellbeing framework, and feedback from school stakeholders.

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## The Literature Review

The **literature review** gives an overview of the leading international scientific research and programs which have been established to define, measure, and enhance student wellbeing (ages 3–19) in school settings. For this report we conducted a non-systematic review of reviews on wellbeing of children and adolescents in educational settings. This literature search was intended to be an initial scoping activity to inform the literature review, and identify articles of interest, rather than be the focus of it.

## The Wellbeing Framework

The **Wellbeing Framework** and a corresponding set of principles are proposed, based on evidence from the literature review, which can be used across ages and stages in all school contexts. **The key performance indicator is school life satisfaction**, as this gives schools the power to ‘move the needle’ on pupil wellbeing. The framework incorporates the areas that show the most potential in the literature to impact on school life satisfaction and pupil wellbeing.

## The School Stakeholder Questionnaire

The **school stakeholder questionnaire** was sent to a small subset of international IBO schools to gain first impressions on the framework and get feedback on the strengths and challenges of implementing such a framework in the school setting.

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## WHY ENHANCE WELLBEING IN SCHOOLS?

Longitudinal research shows that **wellbeing is declining for young people globally**. In recent years, recognition of the growing importance of supporting child and adolescent wellbeing and mental health has gained prominence, and, for some populations, this decline has been exacerbated by the COVID-19 pandemic. In addition, **between 10 and 20% of children and adolescents experience clinical-level mental health difficulties, such as depression and anxiety**.

Children and adolescents spend more time in school than in any other formal institutional setting (Fazel et al., 2014), and **schools are considered crucial spaces for an individual's development from childhood through adolescence** (Mulloy & Weist, 2013; Soutter, 2011). Most children across the world attend some form of schooling, and therefore it is a prime setting for monitoring and enhancing their wellbeing.



**10-20%**  
of children and adolescents experience clinical-level mental health difficulties, such as depression or anxiety.

## A FRESH APPROACH TO WELLBEING IN SCHOOLS

**The uniqueness of this report lies in its focus on subjective wellbeing**, specifically, how a child evaluates their own life at school. The modern, child-centred view is that it is crucial to consider the perspectives of the children themselves (which often differ from the view of adults).

Scientifically, we measure wellbeing in multiple different ways, to find exactly which components contribute to wellbeing across individuals. However, this is not practical in the school setting. **If schools use a dashboard or index approach which has a multitude of different objective and subjective measurements, it is hard to know how to weight each of these variables or indices (i.e., which to give more relative importance).**

With the dashboard or index approach, if every objective measurement says the child is 'well' or 'flourishing', but the child reports themselves as having (subjectively) low wellbeing (or low school wellbeing), then we might say that their subjective report is only one indicator, and we don't need to act.

However, the subjective wellbeing approach suggests that **the young person's own positive experience or appraisal is the overarching good to strive for, and the most important indicator for that child**. This is not to say that young people should have no negative experiences, as this would be both unrealistic and detrimental to their development.

## DEFINITIONS

**Wellbeing is often used as a catch-all term for anything that sits outside academic attainment.**

This makes it difficult for schools to measure and implement changes, because the parameters are so broad and intangible.

**When we discuss wellbeing in school settings, there is often a misunderstanding that this is just the opposite of mental ill health,** or just happiness. In the report, we explain the differences between these concepts and how schools can use these definitions to decide which aspects of wellbeing to measure and impact.

**The definitions we recommend in the report remove the drivers of wellbeing (like resilience, mental health, family, peers, teachers, etc.) from the definition** and focus on the three key areas of subjective wellbeing: life satisfaction; affect; and eudaimonia (meaning or purpose).

We suggest that a school specific definition, including all three areas, is most appropriate:

“

*This school promotes the wellbeing of all pupils. We define wellbeing as our pupils being satisfied with their school lives, having positive experiences at, and feelings about, school, and believing that what they do at school gives them some purpose and meaning.*”

## KEY FINDINGS

- **Childhood and adolescence are key developmental windows for psychological interventions in areas like wellbeing.** This is not only to improve the life of the child during this period, but also to influence the processes of neural reconfiguration and structural remodelling to prepare the young person for adulthood.
- **There is value in using school time, money, and resources to improve pupil wellbeing.** These improvements will likely not only have immediate benefits for students but will have a driving effect on other positive outcomes (individually, socially, and academically) and have a positive impact on the future lives of the young people as they mature into adulthood.
- **Wellbeing is multi-dimensional, affected by many variables, both within the individual themselves, and external elements that either support or pose risks to wellbeing.** The complex bidirectional interplay between these variables should be considered when implementing interventions in educational settings.
- **Psychological functioning is a complicated predictor of wellbeing,** and more research evidence is needed before firm conclusions can be drawn about which of these elements influence wellbeing. **Areas that show promise are resilience, self-esteem, optimism, growth mindset, self-control, emotion regulation, and finding meaning or purpose.**



- **Family interactions are very impactful on the wellbeing of young people and, for children in particular, they are the most significant driver.** While schools and programs have very little control over the home environment, they can provide guidance and information to caregivers about how they can support their child's wellbeing and what factors at home influence it.
- **Schools are very influential on young people's wellbeing, especially the interactions that they have there.** It is important that young people feel safe and supported in their educational environment, and as children get older the influence of peers becomes more prominent. **It is important for pupils to feel connected to their school and feel that it is a good fit for them.**
- **Cooperative learning in the classroom is very important for wellbeing.** Young people benefit from seeing themselves as part of a team and they can benefit from competition when it is team-based rather than focused on individuals.
- **School climate is important for both pupils and staff, and impacts on many other drivers of wellbeing.** It is particularly important for the school environment to feel safe and that the teachers respect and have a good relationship with pupils.
- **The literature is clear that there is a place for both Whole-School Approaches (WSAs) and targeted interventions** and that, if implemented properly, WSAs can be effective. However targeted interventions are still needed, and are effective for those young people who are struggling. It is again clear from the literature that there is no one-size-fits-all approach.
- **Community consultation and ownership is recommended for wellbeing strategies to be adopted and promoted by the school community** (parents and caregivers, pupils, staff, wider community, and other school stakeholders such as school governors). This should crucially include pupil voices and a child-focused approach.
- **Wellbeing policies and strategies should be formalised,** any program implemented should have clear guidelines (or be manualised), and **staff should know which areas they are individually responsible for.**
- **Interventions should have a sound theoretical base** and when interventions are delivered, school stakeholders should ensure that these essential theoretical elements are taught during the intervention and not lost through adaptation. These interventions should also aim to be direct and specific for the desired outcome.
- External experts can be useful for the initial set up of an intervention, but **for the intervention to thrive, in-house staff must take over to ensure that the intervention becomes embedded and is successful in the longer-term.**

“  
*It is important for pupils to feel connected to their school and feel that it is a good fit for them.*”



## RECOMMENDATIONS

- **The IBO should consider a broad top-level definition of wellbeing that can be used as a foundation across its programs**, to which drivers of wellbeing can be mapped as the scientific evidence in this field inevitably expands over the next decade.
- **Each school or educational setting should decide with their school stakeholders which definition of wellbeing works well in their context** or create their own definition from the examples given. Emphasis, where possible, should be placed on what is possible within the school setting with a focus on two aspects: **can we measure it, and can we influence it**.
- While definitions of childhood should be top-level, overarching across ages and stages, **there are developmental differences between the periods of childhood and adolescence which should be considered** before measurement and intervention occurs.
- **Focusing on subjective wellbeing is the clearest logical and practical approach for schools**. Subjective wellbeing is how people think about and experience their lives, and the clearest and most widely applicable definition from an academic wellbeing perspective is one that includes functioning, affect, and satisfaction.
- **Post-COVID-19 interventions are needed in schools to support young people and staff with their wellbeing after a challenging period**. Ongoing measurement is also needed to understand the long-term impacts of the pandemic for young people.
- **There is seemingly no trade-off to make between wellbeing and academic performance. Put simply; happier children make better learners**. Schools can feel confident to use time and resources to improve pupil wellbeing in the knowledge that it will likely also lead to improvements in their core business of academic attainment.
- **Models of wellbeing should consider the young person's whole world**, including the wide variety of interactions they have with other young people and adults, and the different environments that they interact with (e.g., home, school, and community), in addition to any individual differences.

“ Focusing on subjective wellbeing is the clearest logical and practical approach for schools. ”

- **Socio-demographic factors are important predictors of wellbeing, accounting for 10-20% of the variance**. Although schools cannot influence many of these factors (such as age, gender, ethnicity, and genetics) they can use the extant literature to understand how some populations might be disadvantaged. **School stakeholders can use this knowledge to explore the wellbeing of these populations in their own educational setting and implement interventions which will decrease this disparity in wellbeing**.
- Mental ill health is an important aspect of the lives of young people, and its increasing prevalence is troubling. Although there is not a strong link between mental ill health and overall wellbeing in childhood and adolescence, **the broader areas of mental health and functioning overlap heavily with wellbeing and should be included in any model of wellbeing**.

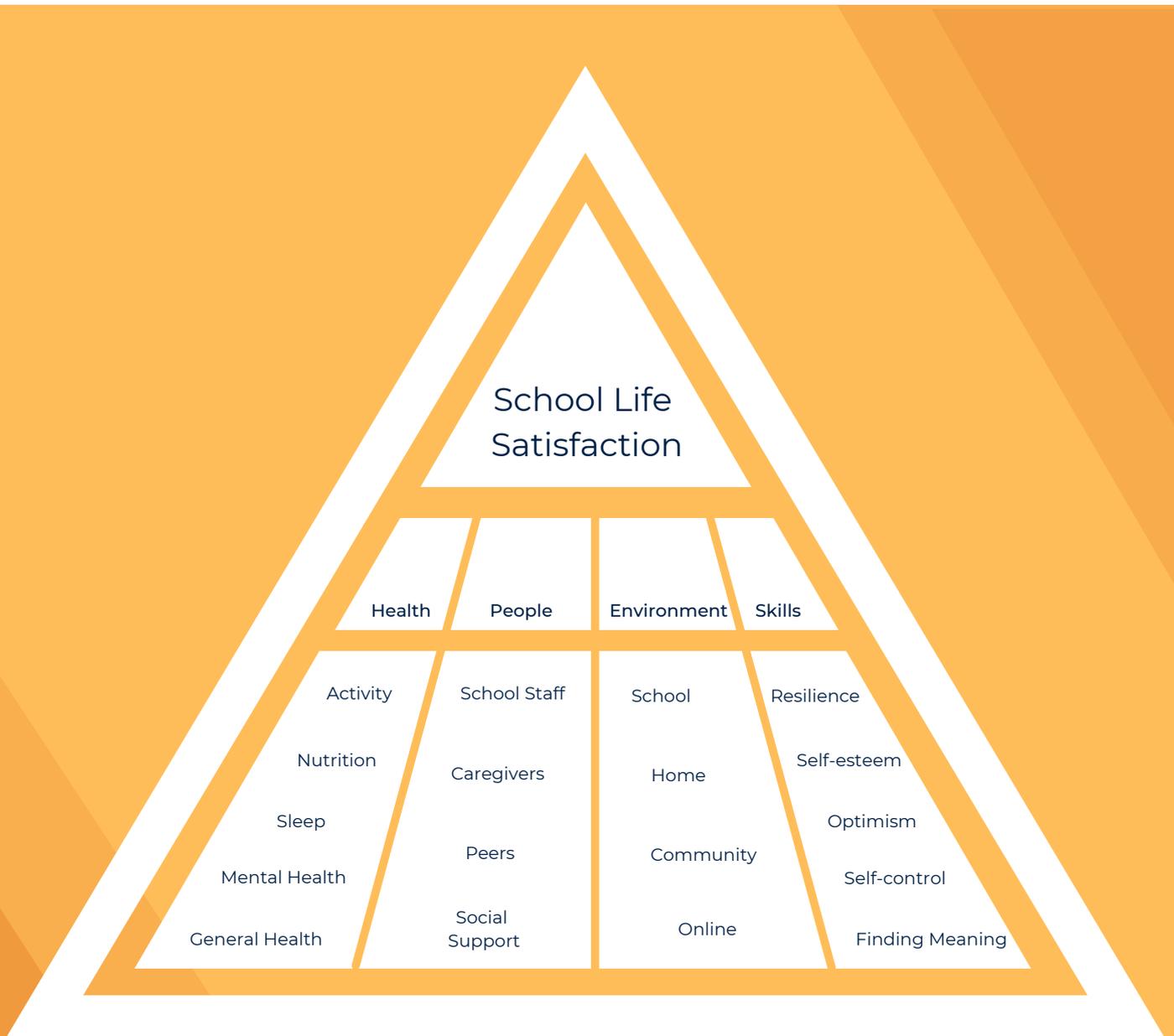
- **Physical health (including the absence of disease or illness, physical activity, diet, and sleep) is crucial to wellbeing, and a deficit in any area of physical health can have a significant impact.** There is very robust evidence to suggest that there is a link between physical activity and wellbeing, and this is a key area that schools and programs should explore. There is less evidence for the impact of sleep and diet on wellbeing, but as these are essential elements of child development they should therefore be included in any model of wellbeing.
- The interactions between peers at school are very important for young people’s wellbeing, especially in adolescence. **One key area that any wellbeing policies should focus on is building social support and reducing instances of bullying.** School stakeholders should also explore social media use in their educational setting and support young people to have positive benefits from time spent online.
- **Teacher wellbeing is also a predictor of pupil wellbeing,** and the research is nearing a causal relationship. **Any wellbeing policies should emphasise ways to support teacher wellbeing and include teacher training on how influential teachers are on the wellbeing of their pupils.**
- **More research is needed into schoolwork,** how young people spend their leisure time, and the influences of the community on young people’s wellbeing. It is likely all these factors are influencers or drivers of wellbeing and should be considered by schools when they are exploring possible interventions.
- **Government wellbeing policies should be reviewed by school stakeholders to understand the most important variables at the policy level.**
- School-related anxiety is an understudied factor which is gaining importance in wellbeing research. **Schools should assess school-related anxiety within their community to find out whether pupils are suffering with school-related anxiety and if there are any key areas (such as workload) which are particularly troubling to pupils.**
- **School stakeholders should select interventions that are the easiest to implement in their educational setting.** If an intervention is challenging to implement, it is less likely to be successful.
- Implementation of an intervention (e.g., quality, dosage, fidelity) is an important factor in determining its effectiveness. **Implementation, i.e., how an intervention is delivered, should be carefully considered by school stakeholders as a crucial element of any wellbeing intervention.**
- **Wellbeing measurement across IB schools and programs should start with a core set of measurements and a single Key Performance Indicator (KPI)** that school stakeholders can use to compare themselves with other educational settings locally, nationally, and internationally, and compare their own progress over time.
- Although we strongly believe that overall life satisfaction should be part of the core measurements, we propose a more school specific item as the **KPI: *How satisfied are you with your life at school?***
- **The IBO should introduce a core set of wellbeing measurements to be used across its programs and schools.** This should be coupled with a library of approved measures which schools can select from to expand their wellbeing assessments.
- **The IBO should consider designing a data platform which would make wellbeing assessments accessible to program leaders and school stakeholders.** This could also help schools compare themselves over time and with other international assessments of wellbeing.
- **The KPI and core measurements are already used in international datasets,** such as the Programme for International Student Assessment (PISA; OECD). **This means that any data collected by IB schools can be compared not only internally, but also nationally and internationally, with large well-established datasets.**

# THE WELLBEING FRAMEWORK

**The framework is presented at the highest level so it can be applied across ages, stages, cultures, and contexts.** The report stresses that school and the IBO do not need to focus on the whole model at once, these are recommended areas of interest that we believe will influence school life satisfaction and subjective wellbeing, and further research will be needed to explore the mechanisms by which these areas can be influenced and, crucially, what works for whom, and in what context.

The report contains evidence for how each of these areas can influence wellbeing.

Each school ecosystem is unique and complex, and the factors that influence wellbeing in schools are varied. The crucial element of this framework is that each of these areas can be explored independently within schools based on their individual needs; **it aims to be practical, flexible, and create as little burden as possible for schools and teachers.**





The feedback from the small sample of international schools surveyed suggested that **most schools are interested in wellbeing and are considering, or already taking, action to improve wellbeing in their school.** Importantly, most school stakeholders responded positively to the wellbeing framework and thought they would be easily able to implement changes in most of the areas proposed in the framework.

**Results showed that only 25% of schools sampled had a written wellbeing policy in their schools,** although 69% of respondents indicated that they had another school policy that covered wellbeing aspects, and 56% of respondents indicated that their school has a member of the SLT dedicated to wellbeing. **Encouragingly, most respondents (88%) indicated that they were already considering wellbeing interventions.** The need for flexible and context-specific interventions was emphasised.

Feedback on the framework was generally positive and, encouragingly, many schools seem to be implementing policies in the areas mentioned in the framework:

“*It seems correct and of great importance. Schools are definitely essential to ensure and support the wellbeing of children and youth.*”

**25%**

of schools sampled had a written wellbeing policy in their schools.

**69%**

of respondents indicated that they had another school policy that covered wellbeing aspects.

**56%**

of respondents indicated that their school has a member of the SLT dedicated to wellbeing.

**88%**

of respondents indicated that they were already considering wellbeing interventions.

**Most school stakeholders reported that they would find it easy to implement changes in most of the areas in the framework** and the main barriers identified were in relation to parent involvement and guidance, and the challenge of implementing new interventions. The lack of staff, and the need for teacher training were also mentioned. **Over half of schools want support with wellbeing** in their schools and they indicate that they would like support with addressing it with pupils, staff, and parents. It seems that schools might be initially hesitant to adopt another policy or framework as they are worried about the accountability that comes with it.

There was a generally positive response to the report (75% of respondents would like to read the report with the remaining 25% responding “maybe”). Most respondents were receptive and open to the idea of addressing wellbeing in schools, with some stating its importance and the need for guidance and

action on the matter. Encouragingly, there was no debate around any of the areas presented in the framework, and most of the challenges identified were around policy implementation. This suggests that **if IBO schools were presented with this framework there would be very little resistance to the content.**

It should be highlighted that **the framework alone will do very little for pupil wellbeing without the appropriate tools to accompany it.** As a school stakeholder identified in their response, there is nothing new in the framework to those of us who work in the field of child and adolescent wellbeing—from both a teaching and academic perspective. **The novelty of the approach which is suggested in this report is the focus on subjective wellbeing,** with the ultimate goal of school life satisfaction, paired with an evidence-based toolkit and comprehensive measurement strategy.



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## NEXT STEPS

We present a range of projects that span from further scoping activities to more blue-sky thinking on where the IBO could have maximum impact on wellbeing. **The IBO has a clear opportunity to be a pioneer in this area, leading the global discussion on child and adolescent wellbeing, and demonstrating how the unique focus of the IB philosophy on the whole child (including their subjective wellbeing) can set the IBO apart** from other education providers who don't adopt this holistic approach.

The first clear next step is **a top-level working definition of wellbeing to be used across the IBO**. A starting point would be using the recommended definition from the first chapter as a foundation:

“*The IBO promotes the wellbeing of all pupils. We define wellbeing as pupils being satisfied with their lives, having positive experiences and feelings, and believing that their life has purpose and meaning.*”

**Of all the elements in this report, the work on measurement is what would make the IBO stand out as a pioneer in the child and adolescent wellbeing field.** There is a real need for consistent, reliable, and validated measurement of wellbeing in schools, for both pupils and staff.

A next step for the IBO would be to produce a set of complementary international assessment tools for different ages and stages to sit alongside the wellbeing framework, which school stakeholders can use as a toolkit or library to select appropriate validated measures from (in addition to the core measurements).

Ideally the measurement toolkit will be coupled with an IB measurement platform into which schools can input their data. **The IBO has a unique opportunity (given its large population of students) to support schools to gather their own data on wellbeing and to link this with international wellbeing datasets.** This would benefit the schools, the IBO, and could be used as a public good (always ensuring anonymity of individuals and schools).

In parallel with measurement, there will also need to be piloting work on intervention. It is recommended that one or two areas of the framework are selected first, and a scoping activity is conducted to explore which interventions exist already that are effective and whether these could be modified for (or dropped into) the IB curricula.

When interventions have been identified, they will need to be tested and measured in schools, firstly with pre- and post- studies and ideally with Randomised Controlled Trials (RCTs) in the long run. Any interventions will also need to be tested to ensure they meet the needs of diverse populations of students, including pupils who have specific needs or disabilities. **This evidence-based approach will ensure that the IBO offers schools a gold-standard toolkit for wellbeing.**

It is also recommended that the IBO team do a deep dive, with the support of wellbeing researchers, into ways in which the existing IB documentation (standards and practices, policies, curricula, professional development, etc.) can be enhanced by the information in this report, intervening at the

top level. **Stellar work that the IBO is already conducting in the wellbeing area can be enhanced by insights from this report**, which should help to identify areas that can be easily targeted for improvement.

The scoping report highlights how important teacher wellbeing is, and **one clear next step is a project**

**focused on how the IBO can support teaching staff in their own wellbeing.** The first step would be a more detailed report on teacher wellbeing globally, crucially including research on measurement and intervention. This work can utilise the vast amount of academic literature in the adult wellbeing sphere, but will need adjustments given the uniqueness of the teaching profession.



“*The IBO has the opportunity to be a thought leader and pioneer in the field of wellbeing.*”

## CONCLUSIONS

**The IBO has the opportunity to be a thought leader and pioneer in the field of wellbeing.**

There is a great deal of interest in wellbeing science from schools and policymakers, and the demand is higher than ever after the changes globally as a result of the Covid-19 pandemic.

**A focus on subjective wellbeing and school life satisfaction is practical, measurable, and comprehensive and gives schools and the IBO an opportunity to make a difference in the lives of their young people.**





# WELLBEING IN EDUCATION IN CHILDHOOD & ADOLESCENCE

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# OVERVIEW

This scoping report will inform and make recommendations for improvements to how wellbeing is 'programmed' within and across International Baccalaureate (IB) programs and schools. **The focus of the report is an evidence-based Wellbeing Reference Framework** that can be used to guide wellbeing practices across the IB curriculum.



We aim to provide International Baccalaureate Organisation (IBO) stakeholders with **evidence-based insights and blue-sky thinking on the definitions and understandings of wellbeing**, and its related concepts, in education and make recommendations about how wellbeing strategies can best be implemented in accordance with the leading scientific literature. In addition, we will highlight frameworks, policies, and practices of wellbeing approaches in education at the global level, as a source of inspiration and guidance at both the school and classroom levels.



# KEY QUESTIONS

- What does the term wellbeing mean and how do we define it?
- What is the global state of wellbeing in childhood and adolescence?
- What impact has COVID-19 had on pupil wellbeing and mental health?
- What is wellbeing in the schools context?
- What is the rationale for enhancing pupil wellbeing?
- What are the surrounding determinants of pupil wellbeing at the individual, school, community, family, and national levels?
- Are whole school, universal, or targeted interventions more effective?
- What interventions enhance pupil wellbeing and by how much?
- What are the most effective ways to measure wellbeing?
- What insights can be taken forward?

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# AIMS

The aim of this report is to **give stakeholders an understanding of the latest research into wellbeing in childhood and adolescence**, and some of the factors that might facilitate or act as barriers to improve student wellbeing. The ultimate aim of this stream of work, beyond the scope of this report, is to **provide an evidence-based IBO toolkit to enhance student wellbeing** (for use with the IB curricula in school settings) which contains resources to inform, define, measure, and implement interventions.

Due to cultural, social, and economic differences in learning environments, there will not be a one-size-fits-all approach. **The report thus provides a variety of suggestions of how IBO stakeholders can start to explore, measure and, crucially, impact the wellbeing of pupils across their programs and schools.** Using this evidence-based approach, as Hurry et al. (2021) highlight, is better than “knitting without a pattern” (Oakley et al., 1995). However, as the evidence from the extant literature cited in this report will attest, **what is effective in one setting, or with one child, may not be effective with another,**

meaning that measurement and monitoring of the state of wellbeing at baseline and during any interventions within educational settings are crucial to find out what is needed and what works for whom, in their own educational environment.

**The approaches taken must be practical to use in the school setting given restrictions on time and resources.** The challenge for school stakeholders is often knowing where to begin with wellbeing interventions, as there is such a wealth of information and research available on the topic.

This is made more challenging by the fact that all the information available is not of equal quality, and assessing which approaches to take can be daunting without academic expertise or guidance as to which programs or strategies might be appropriate.

**The key questions addressed in this report and should give IBO stakeholders a foundation in the wellbeing science of childhood and adolescence to build on across their programs and educational settings.**



# LITERATURE REVIEW

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# LITERATURE REVIEW

This literature review aims to give an **overview of the leading scientific research and programs** which have been established to measure and enhance student wellbeing in schools (ages 3-19).

**The focus of this review is subjective wellbeing**, i.e., how the child evaluates their own life, with a particular focus on their school life. This review will give stakeholders an understanding of the key definitions, research, measurement, and interventions in this area.

**The focus on subjective wellbeing can be viewed as more desirable than focusing on mental health alone, as it encompasses the whole spectrum of functioning.**

As noted in *The Lancet Psychiatry* (Thapar, Stewart-Brown & Harold, 2021), scientists and practitioners should be interested in wellbeing for three reasons: people prefer health measurements to have a positive focus; wellbeing is an important predictor of outcomes such as health related lifestyle, mortality, and poor physical health; and wellbeing metrics are used internationally and are favoured by governments.

The definitions in this report will help stakeholders understand the merits and challenges of the subjective wellbeing approach. It will additionally demonstrate that, in the schools context, **taking a primarily subjective wellbeing approach is not only practical from a measurement perspective, but also gives school stakeholders a foundation to build on, against which they can compare their own progress internally, and with other schools locally, nationally, and internationally.**





# WELLBEING DEFINITIONS

## Context

Humans have always been interested in what it means to 'live a good life', and the exploration of wellbeing dates back at least to ancient Greece, rooted in the work of Aristotle and Plato. The more recent scientific exploration of wellbeing originates with the World Health Organisation (WHO) constitution of 1948, which states that "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity," (WHO, 1948) a proclamation which led to an increased interest in wellbeing from scientists, governments, and policymakers. Another surge in interest in wellbeing occurred in 1974, when Richard Easterlin presented his finding that above a certain level, gains in Gross Domestic Product (GDP: in simple terms, the value added to a nation through the production of goods and services) are not associated with increased happiness of citizens (Easterlin, 1974). Before Easterlin's unexpected finding, governments assumed that if they focused on increasing their wealth, their citizens would be happier as a by-product. However, once it became apparent that, beyond a point, this was not true, scientists, governments, and policymakers began to explore what would make people happier, i.e., going 'beyond GDP'. Great strides have since been made in the adult wellbeing literature. There are now multiple publications which disseminate guidance on how to define, measure, and influence wellbeing in adulthood. There is a World Happiness Report (Helliwell et al. 2012; 2013; 2015; 2016; 2017; 2018; 2019; 2020), produced by the United Nations Sustainable Development Solutions Network, which is the global gold standard for international comparison of wellbeing amongst citizens. This has been published as an annual report on the state of wellbeing globally for the last decade. There are also numerous reports from global organisations such as the Organisation for Economic Co-operation and Development (OECD), and a variety of national work in countries such as New Zealand, Finland, the UK, the USA, Bhutan, and the UAE.

Historically, when assessing the quality of children's lives, policymakers' primary focus was survival and the avoidance of negative outcomes such as illness. As mortality, illness, and disease rates have fallen (particularly in prosperous nations) with developments in healthcare, disease prevention, and societal advances, the focus has shifted away from just the absence of negative experiences (or ill health) and, with the influence of the United Nations' Convention on the Rights of the Child

(United Nations, 1990), towards a broader definition of wellbeing that includes children's evaluations of their own lives. The move towards enhancing children's wellbeing has brought its own challenges: 'wellbeing' is a much more difficult concept to measure than rates of mortality, disease, or illness, and wellbeing is not just the decline of those negative factors (although they can influence it).

School stakeholders may wonder why scientists haven't already agreed on a universal definition of wellbeing and the universal tools to measure it. There are several challenges to overcome before we can work towards a universal definition and measurements. According to Tobia et al. (2019), "the first problem associated with examining children's wellbeing is the lack of a unique and clear definition" (p. 1). We must agree on what we consider good wellbeing or quality of life to be. Each caregiver, educator, school, community, or government may have their own idea about what is best for their child or children, which is influenced by their own context (be that economic, social, environmental, cultural, religious, etc.), and these views may differ, even between two primary caregivers of the same child. Further, wellbeing in childhood and adolescence is an inter-disciplinary topic, with insights from medicine, psychology, sociology, economics, and politics, amongst others. While these insights are all valuable, they each have their own approaches and methodologies, which can make comparisons and refining definitions challenging. As a report from the International Society for Child Indicators highlights, "even within the delimited field of self-reported well-being there are many different ideas and conceptual frameworks" (Rees & Main, 2015, p. 5). This is also the first challenge that school stakeholders face when embarking on wellbeing improvements; determining what is meant by child and adolescent wellbeing. Most school stakeholders agree that they want to improve (or maintain high) pupil wellbeing, but wellbeing is often used as a catch-all term for anything that sits outside academic attainment. This makes it difficult for schools to measure and implement changes, because the parameters are so broad and intangible. When we discuss wellbeing in school settings, there is often a misunderstanding that this is just the opposite of mental ill health, or just happiness. Below, we explain the differences between these concepts and, later in the report, how schools can use these definitions to decide which aspects of wellbeing to measure and impact.

Another issue is who should be making these important wellbeing assessments: should it be parents, teachers, or the children themselves? The modern, child-centred view is that it is crucial to consider the perspectives of the children themselves (which often differ from the view of adults; Bradshaw & Rees, 2017; Doek, 2014), and we should also consider the different ages and stages of child development. An appropriate definition of wellbeing for a pre-schooler, for instance, may not be appropriate for an older adolescent, and vice versa, and younger children may not be able to express these preferences,

making measurement in early childhood challenging. The academic wellbeing literature offers some suggestions as to how wellbeing can best be defined across ages and stages. A preliminary understanding of this research will allow stakeholders to begin to formulate their own definition of wellbeing, appropriate to their school context. To this end, the key definitions of wellbeing are outlined below, as well as some of this discussion in the literature about what should be included and excluded in these definitions.

### 1.1.1 Definitions of Wellbeing in Childhood and Adolescence

In the last 30 years, the focus of child development has shifted from considering childhood solely as a period of preparation for adulthood to, more recently, understanding childhood as a valuable period in its own right. Ben-Arieh suggests that historically this “adult-centred perspective disregards the value of childhood itself, postponing children’s well-being to a later generation” (Ben-Arieh in Strózik, 2016, p. 39). The result is that many policies have not addressed well-being but rather “*well-becoming*” (Ben-Arieh, 2008, p. 6). He further highlights that we have a moral obligation to listen to children. This is supported by article 12 of the ‘Convention on the Rights of the Child’ (1989), which suggests that adults have a legal responsibility to listen to children and take their views into consideration. If we agree that childhood is an important period and experience within itself, then logically the definitions of wellbeing should not only be focused on producing ‘well-rounded’ adults, but also consider the feelings, desires, and perceptions of the child during this crucial developmental period. Therefore, measuring a young person’s subjective wellbeing (their inner subjective state) is essential, and is consequently the main focus of this scoping report (Diener, 1984; Huebner, 1991; Huebner et al., 1998), both for this theoretical reason, and from a practical perspective.

Most researchers agree that wellbeing is multidimensional, but there is a difference as to how academics might assess it, and how we might suggest that school stakeholders approach measurement. Scientifically, we would measure wellbeing in multiple different ways, to find exactly which components contribute to wellbeing across individuals. These might include both objective and subjective measures to see which has greater overall predictive capacity (for an excellent full exploration of wellbeing measurement, please

refer to two OECD reports: ‘Measuring what Matters for Child Well-Being and Policies’, 2021; and the ‘OECD Guidelines on Measuring Subjective Wellbeing’, 2013). However, for schools with limited time, resources, and statistical tools to conduct analyses, this approach would be challenging and cumbersome. Therefore, a streamlined approach focusing on subjective wellbeing as the overarching goal is a more appropriate tool for utilisation by schools. If schools use a dashboard or index approach which has a multitude of different objective and subjective measurements, it would be hard to know how to weight each of these variables or indices (i.e., which to give more relative importance). With the dashboard or index approach, if every objective measurement says the child is ‘well’ or ‘flourishing’, but the child reports themselves as having (subjectively) low wellbeing, then we might say that their subjective report is only one indicator, and we don’t need to act. However, the subjective wellbeing approach suggests that the young person’s own positive experience or appraisal is the overarching good to strive for, and the most important indicator for that child. This is not to say that young people should have no negative experiences (as we will explore in the measurement chapter; section 1.7), as this would be both unrealistic and detrimental to their development (facing challenges or difficulty is an essential part of child and adolescent development). But we should strive for a high level of self-reported overall wellbeing or, more importantly, we should strive to improve very low subjective wellbeing. It is, moreover, essential to recognise that young people’s own world view, properly measured and understood, is important and valuable, and should be the key focus. Careful measurement is essential to ensure that time and resources are directed to those who are consistently most in need of support. This

measurement will not be subjective wellbeing alone, but will include other measurements selected by school stakeholders, which are appropriate and useful for their pupils and educational settings. Below we will explore the subjective wellbeing approach in more detail, but first, we will examine the different terms used in

this report; what they are generally understood to mean, and how they relate to each other. We will then consider working definitions of wellbeing (both academic and those used practically by international organisations) which can be used in the educational setting.

## Key Terms

**Childhood** is the period from birth to approximately 10 years of age (in this report we include literature from age 3 and up).

**Adolescence** is the period approximately between ages 10 to 24; a period where critical brain development takes place for healthy cognitive development (Nelson et al., 2016).

**Young people and 'CYP'** (children and young people) are collective terms which both refer to the full age range of children in this report; children and adolescents, ages 3–19.

**Wellbeing** is a broad and multidimensional concept which encompasses objective and subjective measurements of how an individual's life is overall, including, for example, their psychological functioning, emotional health, purpose in life, and satisfaction with their life. Below we give some definitions from academics and international organizations to highlight and explore the variety of working definitions. When we use the term wellbeing in this report, we are generally referring to subjective wellbeing (see below), unless otherwise stated.

**Subjective wellbeing** is a relatively new term, defined by Diener and colleagues as “people's evaluations of their lives—the degree to which their thoughtful appraisals and affective reactions indicate that their lives are desirable and proceeding well” (Diener et al., 2015, p. 234). Subjective wellbeing, crucially, involves the individual's assessment and perceptions of their own life.

**Life satisfaction** is a term that is often used interchangeably with wellbeing and subjective wellbeing but is actually one component of both (life evaluation). Most one-item measures of wellbeing are measures of life satisfaction (e.g., the Cantril Ladder; Cantril, 1965).

**School Life Satisfaction** refers to how satisfied an individual feels with their school life. This includes

all aspects of their school experience (academic, institutional, and social).

**Mental health** is a term is used in a variety of different ways depending on the context. Some sources use mental health as the opposite of clinical mental illness, while others, such as the WHO (see below), use mental health as a broader overarching term comparable with wellbeing. Those wishing to explore the relationship between mental health and wellbeing must give attention to which definition is presented in the literature they read. If we determine mental health to be the opposite of mental illness, then it is not strongly related to wellbeing (with a small correlation of only  $r = 0.2$ ; Patalay & Fitzsimmons, 2018), whereas if we take Keyes' (2005) view that, “mental health and mental illness are not opposite ends of a single continuum; rather, they constitute distinct but correlated axes” (p. 546), then mental health becomes a much broader term more related to overall wellbeing. However, the distinction between the two is still unclear in the literature, and in some research mental health is proposed as a component of wellbeing, and in others, vice versa (Hanlon & Carlisle, 2013; Huppert, 2005; Keyes, 2005; Lehtinen et al., 2005; WHO, 1948). In the current scoping report, where we are discussing clinical mental illness and its symptoms, we describe this as ‘mental ill health’, and use ‘mental health’ as a broader overarching term.

**Mental illness** (or ‘mental ill health’) is where an individual has a clinically diagnosed mental health condition as diagnosed by the Diagnostic and Statistical Manual of Mental Disorders (DSM; American Psychiatric Association, 2013) or International Classification of Diseases (ICD; World Health Organization, 2019), or pre-diagnosed symptoms. In childhood and adolescence these are commonly mental health conditions such as anxiety disorders, mood disorders and behavioural disorders (Merikangas, Nakamura & Kessler, 2009).

**Quality of life** is an overarching term for the quality of the experience (both objective and subjective) of an individual during their life, which is commonly

used by the medical profession. It is used sparingly in this report as medical quality of life is not the focus. Wellbeing can be viewed as one element of quality of life.

**Emotions** are short-term affective states that come and go quickly (happiness, sadness, anger, etc.)

**Mood** is a longer-term state of mind or persistent feeling. Moods are less intense than emotions and can come and go without any apparent reason (see Alpert & Rosen, 1990).

**Affect** is a general term for any type of feeling an individual can experience which can be positive or negative. Unlike emotions and moods, affect does not include the duration or intensity of the feeling. Happiness, joy, and contentment are examples of positive affect (and can also be moods or emotions depending on their intensity or duration), and depression, anxiety, and fear are types of negative affect (which, equivalently, can all also be moods or emotions).

**Happiness** is a feeling and a type of positive affect (and can be a mood or emotion). Happiness is one part of overall wellbeing (within the affective dimension) and is not interchangeable with the term wellbeing.

**'SEL'** (social and emotional learning) describes a type of mental health and wellbeing program which focuses on interventions targeting the social and emotional aspects of young peoples' lives. It has been most frequently implemented in schools across the UK, USA, and Europe (Elias et al, 1997; Durlak et al., 2011; Sklad et al., 2012).

These key terms are essential to understanding and disentangling the vast body of literature on child and adolescent wellbeing. For the purpose of this report, as discussed above, we will focus primarily on subjective wellbeing research, but we will use the term 'wellbeing' for simplicity (noting any necessary deviations from this). Below we look at some of the working definitions used by academics and organisations to explore what elements are included in these definitions

### Academic Definitions of Wellbeing

<b>Dodge et al., 2012</b>	"Stable wellbeing is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the see-saw dips, along with their wellbeing, and vice-versa" (p.230).
<b>Bradburn, 1969</b>	"An individual will be high in psychological well-being in the degree to which he has an excess of positive over negative affect and will be low in well-being in the degree to which negative affect predominates over positive" (p.9).
<b>Diener and Suh, 1997</b>	"Subjective well-being consists of three interrelated components: life satisfaction, pleasant affect, and unpleasant affect. Affect refers to pleasant and unpleasant moods and emotions, whereas life satisfaction refers to a cognitive sense of satisfaction with life" (Diener & Suh, 1997, p. 200).
<b>Shin and Johnson, 1978</b>	"A global assessment of a person's quality of life according to his own chosen criteria" (p. 478).
<b>Emerson, 1985 and Felce and Perry, 1995</b>	Wellbeing stems from individuals' perception of their current situation and their aspirations.
<b>Rogers, 1961</b>	Discussed wellbeing in terms of "the good life" (p. 186). He believed that each individual strives towards becoming a "fully functioning person" who is open to experience, is trusting in his/her own organism, and leads an increasingly existential life (pp. 187–189).
<b>Marks and Shah, 2004</b>	Considered wellbeing to be: "more than just happiness. As well as feeling satisfied and happy, well-being means developing as a person, being fulfilled, and making a contribution to the community" (p. 2).

Weare, 2015	“A state of positive mental health and wellness” (p. 3).
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As highlighted above, there are agreements and disagreements amongst academics who work on the empirical science of wellbeing as to what is included in, and excluded from, a definition of wellbeing. Most definitions include functioning, affect, and satisfaction with, or evaluation of, their own life. We will return to these three areas after exploring how international child welfare organisations have defined wellbeing. These

international organisations have made good strides in defining wellbeing in childhood and adolescence; below are some definitions from some of the most prominent international organisations. It is important to review these different interpretations of wellbeing because they all have merit in different contexts and defining wellbeing in different settings is not a one-size-fits-all approach.

### Organisation Definitions of Wellbeing

World Health Organization (WHO)	“Mental health is not just the absence of mental disorder. It is defined 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” (WHO, 2001, p. 1)
UNICEF (Innocenti Report Card 16)	“Mental well-being means not only the absence of mental ill-health but also a broader sense of positive functioning,” and “Positive functioning encompasses various components including emotions such as feeling happy, satisfaction with life and a sense of flourishing” (p. 12).
Center for Disease Control and Prevention (CDC)	“Being mentally healthy during childhood means reaching developmental and emotional milestones and learning healthy social skills and how to cope when there are problems. Mentally healthy children have a positive quality of life and can function well at home, in school, and in their communities” and “Mental health is not simply the absence of a mental disorder. Children who don’t have a mental disorder might differ in how well they are doing, and children who have the same diagnosed mental disorder might differ in their strengths and weaknesses in how they are developing and coping, and in their quality of life. Mental health as a continuum and the identification of specific mental disorders are both ways to understand how well children are doing”. (CDC, 2021, p.1).
Childhood Wellbeing Research Centre	“Wellbeing is generally understood as the quality of people’s lives. It is a dynamic state that is enhanced when people can fulfil their personal and social goals. It is understood both in relation to objective measures, such as household income, educational resources and health status; and subjective indicators such as happiness, perceptions of quality of life and life satisfaction” (Statham & Chase, 2010, p.2)
Mental Health Foundation	“For this overview wellbeing is defined as a concept that encapsulates all areas of quality of life including mental, physical, social, economic, and spiritual wellbeing. Drawing from the Scottish Government and WHO, wellbeing includes both <i>how people feel</i> —their emotions and life satisfaction—and <i>how people function</i> —their self-acceptance, positive relations with others, personal control over their environment, purpose in life and autonomy, realization of his or her own potential, ability to cope with the normal stresses of life, ability to work/study productively and fruitfully, and ability to make a contribution to her or his community. This is closely related, but not identical to the definition of wellbeing developed by the Scottish Government to support the implementation of GIRFEC” (McLean et al., 2017, p. 6)

**Australian Council for Educational Research**

They operationalise student wellbeing as “a sustainable positive mood and attitude, health, resilience and satisfaction with self, relationships and experiences at school” (Dix et al., 2020, p. 12).

In accordance with the academic understandings of wellbeing, functioning, affect, and satisfaction are used commonly throughout these definitions. Although largely in agreement, however, these definitions range from simple to more complex, and the more complicated the definitions are, the harder they are to operationalise and measure. It is, moreover, important to exclude drivers of wellbeing (such as stress, mental health, socio-economic-status, etc.) within the definition; while these may influence a child’s wellbeing, they are not a theoretical part of it. Many definitions become incredibly complicated because they try to include a multitude of drivers within the model of

wellbeing and, as Dodge et al. (2012) highlight, many of the definitions tend to describe rather than define. This complicates the situation unnecessarily when measurement is considered. If we included all these drivers in our definition and then run an intervention, if some variables increase and others decrease, then what can we conclude about overall wellbeing, and how do we weight the relative importance of all these factors in their contribution to wellbeing as a whole? This challenge, and others, surrounding wellbeing measurement are discussed below (see section 1.7).

### The Challenges of Examining Wellbeing Definitions Cross-culturally

In addition to the challenges of measurement and defining wellbeing across ages, an emphasis must be placed on the challenges of examining wellbeing definitions cross-culturally. Childcare practices vary widely across the world, and much of the empirical evidence into the science of wellbeing is conducted in western nations such as North America and western Europe (Henrich et al., 2010)—even though, as Levine and New (2008) indicate, children in the west make up less than 10% of children worldwide. Reports on child and adolescent wellbeing also highlight the differences internationally in children’s experiences. Most children internationally live with their families, but the family unit can vary cross-culturally. The Children’s Worlds 2020 report (Rees, Savahl, Lee, & Casas, 2020), part of the International Survey of Children’s Well-being (ISCWeB), indicated that across the 35 countries where data was collected, in 7 of these countries 90% of children lived with both parents, while in 5 countries, less than 70% did. In India and Albania, most children had a grandparent that lived with them, but in Finland and Norway, less than 2% did. These cross-cultural differences in living circumstances are likely to have impacts on wellbeing and support the finding that there are large inter- and intra-cultural differences in children’s lives, in addition to any individual differences between children. For this reason, there is no simple solution to measuring and

implementing wellbeing interventions internationally. Therefore, a top-level definition of wellbeing which does not drill down into the minutiae of individual drivers is preferred to ensure flexibility and global relevance. A further advantage of this top-level approach is that it keeps a degree of flexibility in the definition. Child and adolescent wellbeing are experiencing a huge surge in interest from school stakeholders, policymakers, and academics, which is generating a large volume of annual academic publications on the subjects. This rapid advancement of the science means that the ground is constantly shifting about what should be included in these definitions. In order to future-proof a definition of wellbeing within the IBO, or an educational setting, it is recommended that a practical top-level definition is used, which can remain flexible to the varying domains and drivers over time, whilst still remaining useful for measurement and intervention purposes. Subjective wellbeing is how people think about and experience their lives, and the clearest and most widely applicable definition from an academic wellbeing perspective is one that includes functioning, affect, and satisfaction. This is the approach taken by the OECD in their ‘OECD Guidelines on Measuring Subjective Well-being’ report (2013). The three dimensions are explained below:

### Three Dimensions of Wellbeing

**Life evaluation** – this element captures young people’s satisfaction with their lives, their perception, and experience.

**Affect** – (as described above) the feelings, emotions, and states of a young person at a particular timepoint, including both positive affect (e.g., joy, happiness, pride) and negative affect (e.g., sadness, depression, anxiety).

**Eudaimonia** – whether young people feel their life is worthwhile or has purpose and meaning (this can include autonomy, capabilities, competencies, and other areas of psychological functioning).

Each school should think about what their own definition of wellbeing should be for their pupils and their educational setting, at a top level. One example could be:

***‘This school promotes the wellbeing of all pupils. We define wellbeing as our pupils being satisfied with their lives, having positive experiences and feelings, and believing that their life has purpose and meaning.’***

It is down to each individual school as to whether they keep a clean, simple, definition or whether they include some of the other elements, such as capabilities, competencies, and psychological functioning, or use other terms such as flourishing and future. It is also up to the school whether they make the definition broad or school specific. For example:

***‘This school promotes the wellbeing of all pupils. We define wellbeing as our pupils being satisfied with their school lives, having positive experiences at, and feelings about, school, and believing that what they do at school gives them some purpose and meaning.’***

It is also worth noting that a wellbeing definition can sit alongside any number of other definitions, such as the school’s approach to academic attainment or the prospects of pupils after they leave school, and these don’t necessarily need to sit within the wellbeing definition. It is worth emphasising again that it makes most sense to keep drivers of wellbeing (see section 1.4) separate from the definition, because this gives school stakeholders more flexibility in which interventions they employ.

Although we strongly agree that, academically, there are three areas of wellbeing, in the measurement chapter we argue for focusing on one of these three: life satisfaction. This is not because the other two are not incredibly valuable

(theoretically and methodologically), but rather that from a practical perspective, it makes sense to focus on one Key Performance Indicator (KPI) that can be used as the overarching indicator of wellbeing. In accordance with the adult literature, and publications such as the World Happiness Report, we suggest that life satisfaction, and in particular, school life satisfaction, is the KPI. In section 1.7, we also make recommendations for how the other two areas (and drivers of wellbeing) can be incorporated into measurement and discuss the advantages and disadvantages of this approach, exploring the multidimensional aspects of wellbeing and how a foundational KPI can be utilised.

In addition to providing information on the current state of wellbeing for young people, and a rationale for why wellbeing should be enhanced in schools, this report will also explore the drivers of wellbeing, so stakeholders can fathom which areas might be most appropriate for intervention. The consensus in the literature is that, for young people, wellbeing is a multi-dimensional concept and no one factor is wholly predictive of wellbeing in childhood or adolescence. The literature doesn’t have a consensus about what the precise drivers of wellbeing are, but we will explore some of the main areas which have been researched, including individual differences, psychological factors, relationships, school elements, and factors which are important at the home, community, and government levels. As Yanghee Lee (2009) indicated, “Agreement is found in that well-being is a multi-dimensional construct, encompassing mental/psychological, material deprivation, physical, social dimensions, as well as subjective feelings about one’s quality of life. Child well-being is about being healthy, free from abuse and exploitation, secure, access to basic needs, growing up in an environment where every child is respected, and generally happy” and, “The full and harmonious development of each child is the ultimate goal.” (p. 1).

### 1.1.2 Frameworks and Dimensions of Wellbeing

Below we explore some of the most prominent frameworks of wellbeing in the child and adolescent literature to highlight which drivers are frequently included.

#### Prominent Wellbeing Frameworks from the Child and Adolescent Literature

OECD (2021)	The OECD identify six core dimensions of childhood wellbeing that cover the major aspects of children’s lives: material well-being, housing and the environment, education, health, risk behaviours, and quality of school life. Each dimension has roots in the international standards agreed for children in the United Nations Convention on the Rights of the Child. The research was partly a result of a collaborative conference by UNICEF IRC, the OECD, and the European Commission in 2009.
UNICEF (2020)	UNICEF have developed a multi-level framework of child-wellbeing, in which they “view a good childhood as one in which children have a positive experience of childhood and the prospect of a good future.” The framework is a model of concentric spheres, with child wellbeing outcomes at the centre. It consists of the world of the child (activities and relationships), the world around the child (networks and resources), and the world at large (policies and contexts).
Childhood and Youth Wellbeing Index (Land & Lamb, 2014)	<p>The Child and Youth Well-Being Index (CWI) is an evidence-based composite measure of trends over time in the quality of life of America’s children, from birth up to the 18th birthday. It is based on data from 28 Key Indicators across seven wellbeing domains: family economic wellbeing, safe/risky behaviour, social relationships, emotional/spiritual wellbeing, community engagement, educational attainment, and health.</p> <p>“Children and youth live unique lives; each experiences a range of social conditions at different points. The Index comprises Key Indicators associated with different stages of the first two decades of life. Different Indicators capture children and youth at different stages of life. During the early childhood years, for example, pre-kindergarten enrolment is an indicator of early schooling participation.” (Land &amp; Lamb, 2014)</p>
Ross et al. (2020)	Propose 5 interconnected domains for adolescent well-being: good health and optimum nutrition; connectedness, positive values, and contribution to society; safety and a supportive environment; learning, competence, education, skills, and employability; agency and resilience.
Getting It Right For Every Child (GIRFEC, 2021)	<p>Calls for children and young people in Scotland to be:</p> <ul style="list-style-type: none"> <li>• Safe – protected from abuse, neglect or harm</li> <li>• Healthy – mentally and physically</li> <li>• Achieving – learning, skills, confidence, and self-esteem</li> <li>• Nurtured where they live and grow</li> <li>• Active in a range of activities</li> <li>• Respected – to be given a voice and involved in decision</li> <li>• Responsible - taking an active role in school and community</li> <li>• Included – helped to overcome social, educational, physical, and economic inequalities, and accepted as full members of their community</li> </ul>
Childhood Wellbeing Research Centre (Statham and Chase, 2010)	<ul style="list-style-type: none"> <li>• Feelings of happiness, but also the ability to integrate sadness into one’s life and be able to deal with it</li> <li>• Feeling secure in social relations</li> <li>• Being a moral actor in relation to oneself, making decisions in one’s own best interests, and behaving well in relation to others</li> </ul>

	<ul style="list-style-type: none"> <li>• Having autonomy and agency and being able to act freely, exert choices, and exert influence but being able to do so within strong social relations</li> <li>• Keeping safe and feeling secure. This was understood in relation to personal safety; feeling secure within families, and global safety</li> <li>• Having a positive sense of self including being valued by others; having a positive self; taking time out / having your own space to reflect</li> <li>• Having material resources, which linked to having enough money for a decent standard of living for the family. Such needs were not viewed on an individual basis, but were centred on the family having enough money</li> <li>• Having a good physical environment and home to be in. Young people valued open spaces in which they felt safe; the home as a place of safety and security; the family as a place for having fun and having time out</li> </ul>
<b>Seligman's PERMA Theory (2018)</b>	Proposes 5 elements: positive emotions, engagement, relationships, meaning and accomplishments.
<b>Ryff (1989)</b>	Proposes 6 factors: self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others.
<b>Lippman et al. (2011)</b>	Presents a composite positive framework with 4 overarching themes and several sub-categories within each theme: (a) physical health and safety; (b) cognitive development and education; (c) psychological/emotional development; and (d) social development and behaviour.
<b>Children's Wellbeing Indicator Review (Office for National Statistics [ONS], 2018, 2020)</b>	<p>This review suggested 8 themes which were related to child and adolescent wellbeing:</p> <ul style="list-style-type: none"> <li>• Personal well-being</li> <li>• Our relationships</li> <li>• Health</li> <li>• What we do</li> <li>• Where we live</li> <li>• Household finances</li> <li>• Schools and skills</li> <li>• Future and voice</li> </ul>
<b>Bradshaw et al. (2007)</b>	<p>In their Index of Child Well-being for the European Union they suggest 8 themes:</p> <ul style="list-style-type: none"> <li>• Material situation</li> <li>• Housing</li> <li>• Health</li> <li>• Subjective wellbeing</li> <li>• Education</li> <li>• Children's relationships</li> <li>• Civic participation</li> <li>• Risk and safety</li> </ul>

All the frameworks presented prioritise elements of physical health and safety (often in relation to sexual health in adolescence); opportunities for learning, skills-building, and education; and mental health components. Most also identify elements of social connection or relationships as key factors in wellbeing, and several highlight key personal character traits such as agency and resilience or meaning. Most definitions either implicitly or

explicitly identify (and in some cases distinguish) between objective and subjective elements of wellbeing. Special emphasis is placed on adolescence as a critical time of the life course when many of the factors that contribute to wellbeing across the life course are (or are not) acquired or developed. The extant empirical evidence for many of these variables is explored in this report (see section 1.4).

### 1.1.3 What are the Potential Developmental Differences in Wellbeing at Different Ages?

In the definitions of wellbeing above we discuss childhood and adolescence interchangeably, as we suggest it is logical to remain flexible to different ages and stages and use a top-level definition to allow for incorporation of new research findings. However, there are clear differences between children's (approximately aged 3-10 in this report) and adolescents' (approximately aged 10-19 in this

report) development and wellbeing. Below we look at the development of the child and adolescent brain and highlight some of the key developmental differences between these two somewhat distinct periods. In the next section (1.2) we look at the global state of child and adolescent wellbeing and how this has changed in recent years.

#### 1.1.3.1 *The Development of the Child and Adolescent Brain*

Human brain structural and functional development occurs over a protracted period (Watson et al., 2006; Batalle et al., 2018), and this coordinated development and expansion of behavioural and cognitive abilities is especially rapid in the early years. In the first few years after birth, both brain volume and cognitive function increase markedly (Johnson, 2001). Although most neurons are in place by birth, synaptogenesis occurs at a high rate during the first year of life, and the number of synapses peaks during this period at around 150% of adult levels (Johnson, 2001). Developmental processes extend from the prenatal to the postnatal period and span into later childhood and adolescence (Innocenti & Price, 2005).

Overall, there are statistically significant peaks in brain growth rates at age 7, 11–12, and 15 years (Epstein, 1986). According to Blakemore et al. (2006), the notion that the brain continues to develop after childhood is relatively new, that is, it was studied as recently as the 1970s and 80s which demonstrated that the structure of the prefrontal cortex undergoes significant changes during puberty and adolescence (Huttenlocher, 1979; Huttenlocher et al., 1983; Yakovlev et al., 1967), both structurally and functionally (Arain et al., 2013). Large-scale, longitudinal studies using MRIs have shown that the brain undergoes substantial and protracted development from adolescence through to adulthood (Blakemore, 2018). For instance, white matter increases, while cortical grey matter that is highest in late childhood begins to decrease by approximately 1.5% each year and stabilises in the mid-twenties (Blakemore, 2018). Other studies have found the same, that is, grey matter volume, surface area, cortical thickness, as well as white matter volume and microstructure, all show significant changes in adolescence (Giedd et al., 1999; Vijayakumar et al., 2016; Tamnes et al., 2017; Foulkes & Blakemore, 2018). These changes can continue to develop into the twenties and thirties.

The finding that changes in brain structure continue into adolescence and early adulthood challenged accepted views and has given rise to a recent spate of investigations into the way cognition might change as a consequence (Blakemore & Choudhury, 2006). Several aspects of social cognition are developed or continue to develop during adolescence. Recent functional neuroimaging research has shown that activity in parts of the social brain during social cognitive tasks changes during adolescence (Blakemore, 2008). According to Dandash et al. (2021), "the protracted development of the frontal lobe during adolescence can be beneficial in terms of convention learning, including language and social norms, but may also potentiate the effect of negative social environmental factors that can have long-term effects on brain development and cognitive abilities." (p. 1). A review of literature by Yurgelun-Todd (2007) has shown that the cognitive development in adolescence is also linked to progressively greater efficiency of cognitive control capacities.

Finally, in terms of what influences brain development and maturation, Arain et al. (2013) find that heredity and environment, prenatal and postnatal insult, nutritional status, sleep patterns, pharmacotherapy, and surgical interventions during early childhood are predictive factors. Furthermore, physical, mental, economical, and psychological stress; drug abuse (caffeine, nicotine, and ethanol); and sex hormones, including oestrogen, progesterone, and testosterone influence the development and maturation of the adolescent brain. Childhood and adolescence are therefore key developmental windows for psychological interventions in areas like wellbeing, as the processes of neural reconfiguration and structural remodelling prepare the individual for adulthood (UNICEF, 2017; Backes & Bonnie, 2019).

### 1.1.3.2 Developmental Differences

Childhood and adolescence are characterised by rapid physical, cognitive, social, and behavioural development, and experiences in these formative years can have a shaping effect as we mature into adulthood (DeHart, Sroufe & Cooper; 2000). From ages 3–5, most children are either at home or in a pre-school setting, and from age 5, most children globally enter some form of education until adolescence (UNICEF Innocenti, 2020). Many countries have mandatory education until the age of 16, with optional further education in schools until 18 or 19 (and university or college beyond; European Commission/EACEA/Eurydice, 2018). During these 11+ years in educational settings, children grow from young people just learning their alphabet and basic assumptions about the world to, in some cases, fully functioning adults. As demonstrated above, the brain goes through a rapid period of change in these years; research has shown that the brain is different in terms of structure and processes in CYP than it is in adulthood. Of course, we no longer believe that the child is an entirely ‘blank slate’ at birth: we know that there is an interplay between genes and environment which determines many of our characteristics, as we discuss in the determinates of wellbeing section (1.4). Indeed, it is challenging to try to disentangle the relationship between genes and environment because they are so intricately interwoven and have a bi-directional relationship (see section 1.4.2.1.5).

Of interest to wellbeing researchers are the developmental cascades that certain drivers have on wellbeing. For example, a lack of sleep, adequate nutrition, and care (or the presence of abuse) in childhood can send ripple effects through a young person’s life that manifest in a myriad of, often negative, ways in adulthood. This is, however, not always the case: some negative experiences, in some young people, seemingly do not have these negative ripple effects. As scientists, we’re keen to understand which drivers have the most significant effects for most young people, and which can act as buffers or accelerants of these effects. Specifically, we are interested in which factors lead to equifinality (reaching the same end point, e.g., academic attainment, regardless of the other influences in life); one example of this is self-regulation, which can act as a compensatory factor for children who are at risk (Sektan et al., 2010). Equally, we’re also interested in multifinality, where individuals who have had similar experiences have different outcomes (Cicchetti &

Rogosch, 1996; Gottlieb et al., 2006; Settersten et al., 2014). In both cases of equifinality and multifinality, the significance lies in which variables make a difference when controlling for other factors. While identifying important variables can be challenging, what we do know is that these developmental ripple effects from wellbeing are present almost from conception: even the environment experienced in the womb (for example, whether stress hormones are present long-term or not) has been suggested to have profound long-lasting consequences on health and risk of disease in later life (e.g., Hobel et al., 1999; La Marca-Ghaemmaghami et al., 2017). Wellbeing is inextricably connected with who we are and is a common thread across all human life. Childhood development, meanwhile, is a complex, nonlinear, and bidirectional process (Settersten et al., 2014). Of great importance is the fact that many of our traits and characteristics are still malleable in childhood and adolescence, some of which lose their plasticity over time (Cantor, Osher, Berg et al., 2019; Rothbart & Bates, 2006). There are individual differences in plasticity and susceptibility which can be beneficial or harmful depending on the nurture or environmental influences received, and particularly sensitive periods where adaptation can occur more readily (Cantor, Osher, Berg et al., 2019).

### Childhood

Until the post-war period (1950–1980) childhood and adolescence were viewed largely interchangeably. Scientists now agree that there are distinct differences between these two periods neurologically, physically, socially, and behaviourally (see the work of John Bowlby and Erik Erickson). There are many different theories of child development which each explore the ages and stages of childhood, and their importance for the health and development of the child (e.g., ‘Attachment Theory’, Bowlby, 1958; ‘Social Learning Theory’, Bandura, 1977; ‘Psychosocial Development’, Erikson, 1950, and ‘Sociocultural Theory’, Vygotsky, 1978). Childhood (ages 3–10 in this report) is full of these developmental milestones, especially around physical, cognitive, and linguistic abilities. In childhood, the world of the child largely revolves around the family, and the family setting has the greatest influence on their wellbeing (see section 1.4.2.2). Outside the family setting, most children spend much of their time in school. In primary (elementary) school,

most schools have one teacher covering most of the curriculum, and interactions with other adults are generally limited. Compared with secondary (high) school, primary (elementary) school settings are also generally smaller, and the child normally has a small group of consistent classmates throughout the year. Children usually have a lot of free time at this early age (although this depends on the individual circumstances of the child) and few responsibilities (see section 1.4.2.2), and commonly spend time socialising at school in large same-sex groups. There is not usually a great deal of pressure from schoolwork in early childhood; this only begins toward the end of the childhood period (around ages 8–10).

### Adolescence

Adolescence, from the Latin *'adolescere'*—to grow up—now occupies a greater portion of the life-course than ever before (Sawyer et al., 2018). In adolescence, the start of which is linked with the onset of puberty (i.e., the activation of the neuroendocrine hypothalamic-pituitary-gonadal axis), there are a great deal of biological, behavioural, cognitive, and social role changes (Sawyer et al., 2018). This challenging period between childhood and adulthood is also associated with increases in negative affect, such as stress, and is a time of turbulent emotional experience (Gore & Colten, 1991; Silvers et al., 2021). In adolescence the focus shifts away from the family, and peers and school life take more prominent positions (see sections 1.4.2.2 and

1.4.2.3). The social world of the young person becomes increasingly more important, and their life at school is full of a variety of interactions with classmates, peers, teachers, and other adults in the school and community settings. Adolescents also spend more time out of the home and in community settings than children do, meaning they interact with, and can be influenced by, a wider variety of people (both peers and adults). Although, legally, adulthood does not usually start until 18 years of age, the adoption of many adult roles, such as marriage, parenthood, and employment can start much later (or earlier in some cultures). With regards to behavioural development, UNESCO (2016) states, “adolescence is a critical stage in life, for education, health, and physical, emotional and psychological development” and it is “a time when young people may start to engage in behaviours that can adversely affect their health and education. HIV, suicide and violence are among the five leading causes of death among adolescent boys and girls.” (p.8). Further, the WHO (2020) indicates that the more risk factors that young people are exposed to, the greater the potential impact on their mental health. They identify several factors that contribute to stress in adolescence include desire for greater autonomy, pressure to conform with peers, exploration of sexual identity, home life, relationships with parents and peers, violence, socioeconomic problems, and increased access to and use of technology. We will expand on these age-related differences when we explore the drivers of wellbeing (section 1.4).

#### 1.1.4 Key Findings and Recommendations

**Key Finding #1:** Childhood and adolescence are key developmental windows for psychological interventions in areas like wellbeing. This is not only to improve the life of the child during this period, but also to influence the processes of neural reconfiguration and structural remodelling to prepare the young person for adulthood.

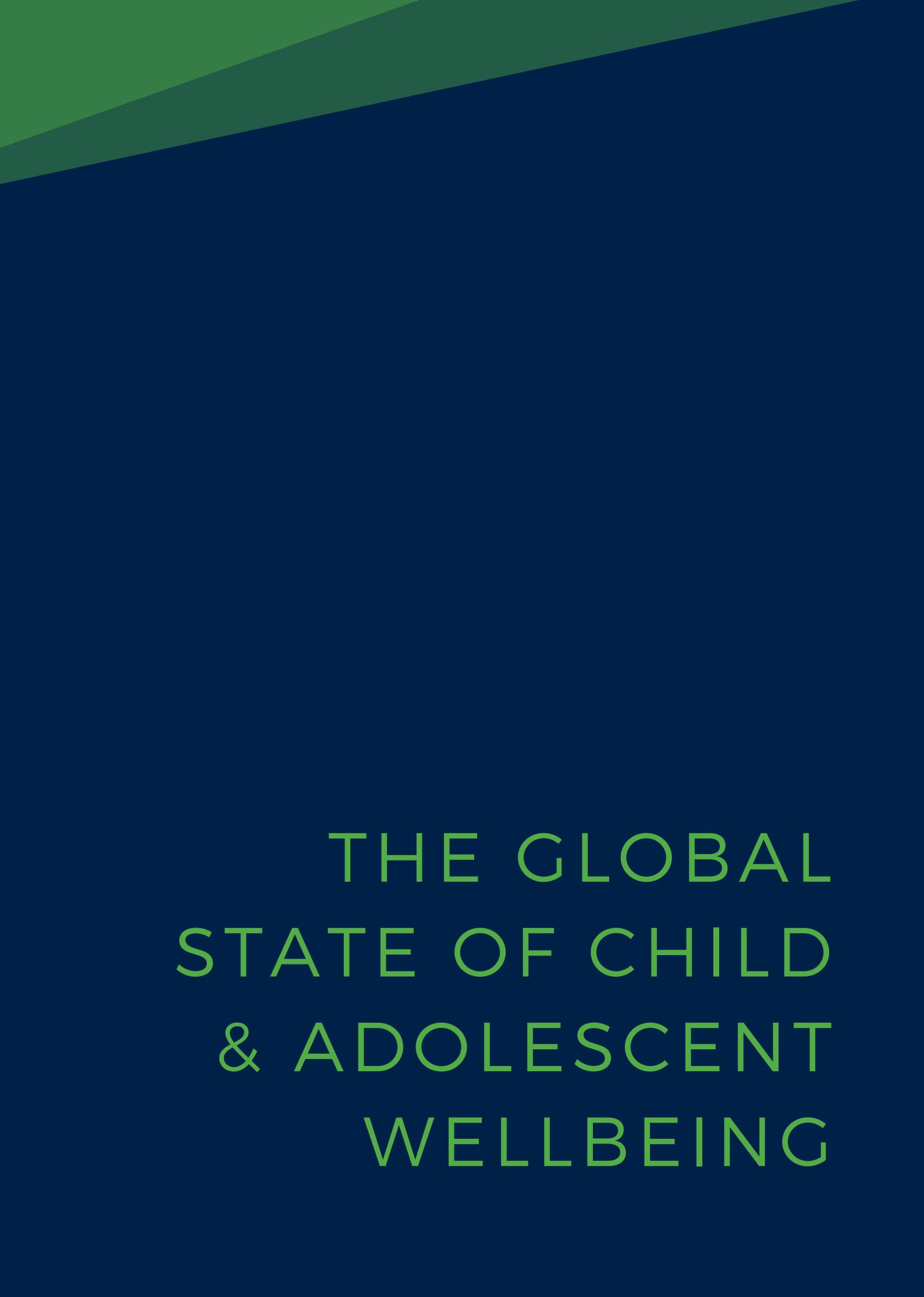
**Recommendation #1:** The IBO should consider a broad top-level definition of wellbeing that can be used as a foundation across its programs, to which drivers of wellbeing can be mapped as the scientific evidence in this field inevitably expands over the next decade.

**Recommendation #2:** Each school or educational setting should decide with their school stakeholders which definition of wellbeing works well in their context or create their own definition from the examples given. Emphasis, where possible, should be placed on what is possible within the school setting with a focus on two aspects: can we measure it, and can we influence it.

**Recommendation #3:** While definitions of childhood should be top-level, overarching across ages and stages, there are developmental differences between the periods of childhood and adolescence which should be considered before measurement and intervention occurs.

**Recommendation #4:** Focusing on subjective wellbeing is the clearest logical and practical approach for schools. Subjective wellbeing is how people think about and experience their lives, and the clearest and most widely

applicable definition from an academic wellbeing perspective is one that includes functioning, affect, and satisfaction. The most flexible ways for schools to define (subjective) wellbeing is: *'This school promotes the wellbeing of all pupils. We define wellbeing as our pupils being satisfied with their lives, having positive experiences and feelings, and believing that their life has purpose and meaning.'*



THE GLOBAL  
STATE OF CHILD  
& ADOLESCENT  
WELLBEING

Research and large-scale assessments have begun to form a picture of the current state of wellbeing amongst children and adolescents globally. While levels of self-reported wellbeing among youth are relatively high (on average across OECD countries, 15-year-olds score 7.3 out of 10 on life satisfaction; OECD, 2017), longitudinal research shows that wellbeing is declining for young people globally. In recent years, recognition of the growing importance of supporting child and adolescent wellbeing and mental health has gained prominence with good reason. As one OECD study notes, on average in the OECD around 1 in 8 children report a low level of life satisfaction; and worldwide, between 10 to 20% of children and adolescents experience clinical-level mental health difficulties, such as depression and anxiety, with the reported prevalence of psychiatric disorders growing over the last few decades (Kieling et al., 2011; Collishaw, 2015; Twenge, 2015). The WHO (2020) states that 1 in 6 people in the world are aged 10–19, and mental health counts for 16% of the global burden of disease in this age group, with depression being one of the leading causes of illness (and the largest impact on health due to years lost to disability), and suicide being the fourth leading cause of death.

While generally high levels of wellbeing are still being reported (Children's Worlds, 2020), significant variations were noted between and within countries (with most of the variations in wellbeing being within rather than between countries: Lee & Yoo, 2015; Bradshaw & Rees, 2017; Klocke et al., 2014; Bradshaw, 2015; Newland et al., 2018; Chen et al., 2019). Some variations between age, gender, and socio-economic status were also noted. Most significantly, studies show that the state of wellbeing among youth is declining. One Health Behaviour in School-aged Children (HBSC) study published in 2020 by the WHO Regional Office for Europe on the health and social behaviours of schoolchildren aged 11, 13, and 15, from 45 countries, showed that adolescent mental wellbeing declined in many countries between 2014 and 2018 (Inchley et al., 2020). The same report shows that in roughly one third of countries there was a rise in adolescents feeling pressured by schoolwork and a decline in young people reporting to like school, compared with 2014 (Inchley et al., 2020). Similarly, the OECD's 2018 Programme for International Student Assessment (PISA) report indicated that while on average across OECD countries, 67% of students reported

being satisfied with their lives, that percentage shrank by 5% between 2015 and 2018 (OECD, 2019). Research also suggests that wellbeing declines as children grow older, with girls particularly at risk of having poor wellbeing outcomes compared to boys (Inchley et al., 2020; OECD, 2019). Research using PISA data also indicates that, amongst 15-year-olds, there was a global decline in life satisfaction between 2015 and 2018 across 39 of the 46 countries studied, declining more amongst girls than boys (Marquez & Long, 2020). While most students on average across OECD countries reported sometimes or always feeling happy, cheerful, joyful, or lively (80%); a contrasting 6% of students reported always feeling sad (OECD, 2019). Concerningly, the OECD (2019) report suggests that the mental health gap between children in relatively advantaged and disadvantaged socioeconomic circumstances is growing (Elgar et al., 2015; Collishaw et al., 2019).

Substantial challenging areas for child and adolescent wellbeing are also outlined in the studies. Among the most significant threats is bullying. The 2018 PISA report indicated that across OECD countries, some 23% of students reported being bullied at least a few times a month. This has ramification on life satisfaction, with 26% of frequently bullied students reporting being unsatisfied with life, while only 10% of students who are not frequently bullied reported so (OECD, 2019). Physical and nutritional behaviours are also listed among the core challenges, with most children and young people failing to meet current nutritional recommendations and failing to meet the WHO global physical activity recommendations of 60 minutes or more of moderate-to-vigorous physical activity per day. As a result, being overweight or obese affects 1 in 5 adolescents, with higher levels among boys and younger adolescents (WHO, 2020). A further area of concern is levels of risk-taking behaviour around sexual activity as well as drug and alcohol consumption among adolescents (Inchley et al., 2020). The ubiquitous use of online media platforms particularly among older girls, is also associated with risks to wellbeing. While the benefits of technology are well noted, it can also amplify vulnerabilities and introduce new threats, such as cyberbullying. Over 1 in 10 adolescents report having been cyberbullied at least once in the past two months, a proportion skewed towards girls (WHO, 2020).

### 1.2.1 Wellbeing During the Covid-19 Pandemic

Covid -19 and associated lockdowns have had a negative effect on the mental health and psychological wellbeing of populations across ages and geographies (Benke et al., 2020; Brodeur et al., 2021; Zacher & Rudolph, 2021). Stressors particular to pandemics include long quarantine durations, fear of infection, boredom, and changes in financial circumstances (Brooks et al., 2020).

For children and young people in particular, lessons from past pandemics, such as SARS, H1N1, MERS, and Ebola, have shown that psychological health is negatively affected, as measured in terms of anxiety, depression, fear, stigma, and posttraumatic stress symptoms (Meherali et al., 2021). Despite limited research so far, it is already apparent that the direct and indirect effects of the COVID-19 pandemic have severely affected children's wellbeing. A multi-country cross-sectional study indicated that depression, anxiety, and stress symptoms increased in young people during the pandemic, with predictors of the symptoms being: being female; being in contact with a friend and/or a family member with mental illness; being quarantined for 14 days; and using the internet (Al Omari et al., 2020). Similarly, a longitudinal study by Magson et al. (2021) reported an increase in anxiety and depression, as well as a decrease in life satisfaction, in adolescents over the course of the onset and continuation of the pandemic. Predictors included COVID-19 related worries, online learning, and increased conflict with parents. The study also found a similar gender difference, with girls' decrease in life satisfaction being more pronounced.

#### Individual and Environmental Differences in the Impact of Covid-19

Levita (2020) highlights potential differences in the impact of COVID-19 on psychological wellbeing at different developmental times during the adolescent period. However, contrasting evidence is present as to the wellbeing differences across ages. For instance, in the UK, increasing age was associated with lower wellbeing scores, as measured by the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS; Levita, 2020). In the US, Schwartz et al.'s (2021) findings are consistent with this; females and older children reported higher stress indicators in response to COVID-19 related stressors. On the other hand, Tso et al. (2020) study a cross-section of families in Hong Kong to show that when wellbeing is seen through

behavioural manifestations, it is preschool children who appear greatly affected during the pandemic. In terms of rate of change, Waite et al.'s (2020) study, also based in the UK, highlighted deteriorations in mental health symptoms among pre-adolescent children, while changes measured in adolescents were smaller.

The same study highlighted the importance of targeted support, with children in low-income households and those with special needs or neurodevelopmental disorders exhibiting elevated symptoms (Waite et al., 2020). Indeed, various studies have predicted that it is children who are already disadvantaged, or have pre-existing physical or mental conditions, who are at highest risk of a deterioration in wellbeing as a result of the pandemic (Fegert et al., 2020; Hawke et al., 2020; Lee, 2020; Tso et al., 2020). For children with special education needs, for instance, the restrictions that come along with the pandemic have meant restricted access to services to which they would normally have access (Lee, 2020).

The same applies to children with existing mental health conditions. School-based mental health services are particularly important: for instance, for youth with elevated mental symptoms in the US, the majority (22.10%) have traditionally been served by school-based mental health services (Duong et al., 2021) and school-based mental services often serve to fill the needs-services gap and offer more equitable access to youth in need, irrespective of family socioeconomic conditions (Langer, 2015). School closures thus represent the loss of a significant wellbeing and mental health support system. Indeed, in a survey of over 5000 participants, it was found that 80% of mental health service users have had the support from their service stopped or postponed during the pandemic (Waite et al., 2020). Even beyond school-based services, however, in the UK, overall numbers of referrals and admissions to secondary mental health services reduced following commencement of COVID-19 lockdown, with this trend being reflected in children and adolescents' mental health service use as well. This was both due to healthcare and patient factors (Tromans et al., 2020).

Known social risk factors which make young people more susceptible to experience mental health problems and report lower wellbeing, such as poverty, long term physical health conditions, and

previous trauma, have been elevated during the pandemic (Jeffery et al., 2020). The physical health effects of the pandemic have disproportionately hit poorer families and families from minority ethnic backgrounds, and this has correlated with poorer mental health outcomes (Benson-Allott, 2020).

Deteriorating mental health during the pandemic is by no means uniform. A sizeable proportion of 19,000 8- to 18-year-olds from 237 English schools surveyed during early summer 2020 reported feeling happier at home (Ford et al., 2021). However, more long-term effects are uncertain. Tracking the wellbeing of children returning to school in the autumn of 2020 in Alberta, Canada, Schwartz et al. (2021) report that six months into the pandemic, most youth were doing “quite well” and that any steep differences in mental health were reflective of pre-existing disparities. At the same time, not all children with neurodevelopmental disorders have experienced adverse effects in their wellbeing. Though rarer, certain groups of children with special education needs have reported an increase in wellbeing. A qualitative study in France showed that parents reported that most children and adolescents with ADHD experienced an increase in wellbeing and greater stability during the pandemic—this was related to “an improvement in school-related anxiety and the flexible adjustment to the childrens' rhythms as well as parents' increased awareness of the difficulties their children experience” (Bobo et al., 2020).

### The Effects of Lockdown and Quarantine

Overall, however, rather than vulnerability to the virus and physical health concerns that affect older populations, it is the government restrictions designed to contain the virus, such as lockdowns and quarantines, that have a greater impact on children's and adolescents' wellbeing. Quarantine measures, whether related to COVID-19, past pandemics, or other reasons, have been associated with increased mental health problems in both adult and youth populations (Wang et al., 2011; Zhu et al., 2020). As previously highlighted, school closures, as part of wider social distancing measures, have particularly impacted children's wellbeing. As of March 2020, around a third the world's population was under lockdown (Kaplan et al., 2020) rising to around half by May (Sandford, 2020). As of 8<sup>th</sup> April 2020, 188 countries had suspended schools nation-wide. A year into the pandemic, close to half the world's students are still affected by partial or full school closures (UNESCO, 2020).

The importance of schools as a place for children to interact with peers and develop social cognition skills (de Figueiredo et al., 2021) and the established links between education and mental health mean that school closures, as a part of wider social distancing measures, have an impact on children and adolescents' wellbeing (Viner et al., 2021). Figueiredo et al. (2021) indicate that schools are one of the most important social environments for children to develop self-concepts and a sense of wellbeing. For younger children, schools also act as a place to engage in physical activity, which has widely been considered a driver of wellbeing (Penedo, 2005; Biddle, 2021). For adolescents, school connection and school attendance have been identified as protective factors against poor mental health outcomes (Bond et al, 2007; Schwartz et al., 2021).

As compared to adults, children are more vulnerable to their environment, and this can affect their long-term health and productivity too (Wang et al., 2020). School closures have thus meant a disruption in routine and change in environment, as well as a decrease in physical activity and social engagement and a restriction to certain services, and are thus one of the primary stressors associated with COVID-19 and lockdown. School closures and lockdowns have also led to an increased risk for parental mental illness, domestic violence, and child maltreatment (Cluver et al., 2020; Fegert et al., 2020). All these can also contribute to decreased mental health and wellbeing of children.

The shift to online education was challenging for both teachers and students, with online learning difficulties predicting low wellbeing outcomes (Magson et al., 2021). The role of technology during the pandemic has a complex relationship with wellbeing. In some forms, the use of technology to create bonds and keep up with previous social networks; to be able to learn; to keep fit and so on meant that technology theoretically contributed to physical, emotional, social, emotional, and spiritual wellbeing (Goldschmidt, 2020). However, the increased use of social networks by adolescents during the pandemic has been shown to be associated with worse mental health, which was influenced (mediated) by negative affect (Zhao et al., 2020).

As children return to school, guidance has been set out by various governments, charities, international organisations, and researchers. Most often, these are whole school approaches that include support

for staff, activities for parents, risk assessment measures, and targeted support for students across age groups (Young Minds, 2021). Information and resources specific to transitioning back to school have been made publicly available by departments and ministries of education. This too includes targeted support for teachers, administrative staff, parents, children with disabilities, and children across different levels of schooling (e.g., Department of Education in Ireland and the Ministry of Education in New Zealand).

#### What Action Is Needed?

It has been made clear that scalable interventions to address COVID-19 mental health are needed. Bonardi et al. (2021) conducted a systematic review of randomised controlled trials that tested interventions designed specifically for COVID-19

mental health and found that internet-based cognitive behavioural therapy programs were particularly effective for general populations, while telephone interventions or low-intensity peer-delivered interventions worked for more vulnerable groups. However, while interventions for general populations were prevalent, their review found that there was a lack of well-conducted trials for children and adolescents in particular. It is also clear that additional and more targeted research is needed when it comes to children's wellbeing with respect to COVID-19 (Racine et al., 2020). While current research has been rapidly produced and is rapidly evolving, there is still a long way to go, especially when measuring more long-term impacts of the pandemic on wellbeing and mapping back-to-school resilience and coping methods.

### 1.2.2 Key Findings and Recommendations

**Key Finding #2:** Wellbeing is declining for young people globally and this, for some populations, has been exacerbated by the COVID-19 pandemic. In addition, between 10 to 20% of children and adolescents experience clinical-level mental health difficulties, such as depression and anxiety. Up-stream interventions and targeted interventions are needed to mitigate these developmental cascades which can have negative effects into adulthood.

**Recommendation #5:** Post-COVID-19 interventions are needed in schools to support young people and staff with their wellbeing after a challenging period. Ongoing measurement is also needed to understand the long-term impacts of the pandemic for young people.



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# WELLBEING IN SCHOOLS

### 1.3.1 Why Focus on Schools?

Schools are viewed as critical in the development of wellbeing both during childhood and for pupils' futures. While schools are primarily seen as places where young people acquire academic skills, they "also provide the platform where people connect with others, build their personality, and experience life, all of which can influence their subjective wellbeing" (Dix et al., 2020, p.12). There has been growing recognition from across disciplines of the importance of incorporating wellbeing into the learning environment. Schools are considered formative at the time of childhood and adolescence, a period in which long-term attitudes towards personal wellbeing and lifestyle choices are formed. The social and emotional skills, knowledge, and behaviours that young people learn in the classroom help them build resilience and set the pattern for how they will manage their physical and mental health throughout their lives.

Children and adolescents spend more time in school than in any other formal institutional setting (Fazel et al., 2014), and schools are considered crucial spaces for an individual's development from childhood through adolescence (Mulloy & Weist, 2013; Soutter, 2011). Most children across the world attend some form of schooling and therefore it is a prime setting, with, in some cases, near universal access to this population (Secretary of State for Health and Secretary of State for Education, 2017), for monitoring and enhancing their wellbeing. In the UK, a Young Minds (2018) report points to an escalating crisis in mental health in schools and demonstrates the increasing importance of a focus on wellbeing in schools. They argue that "over the course of their education, children spend over 7,800 hours at school", schools therefore "provide an ideal environment for promoting good emotional wellbeing and identifying early behaviour changes and signs of mental distress". Moreover, "parents see schools and teachers as the first port of call when raising concerns about their child's emotional wellbeing and mental health" (Young Minds, 2017). The Council of Europe also emphasise the importance

of schools in supporting students to understand the choices they face, to subsequently make healthy lifestyle choices, and to understand the effects of their choices on their health and wellbeing. They further suggest that schools are "able to provide students with the intellectual skills required to reflect critically on these choices and on the influences that society brings to bear on them, including through peer pressure, advertising, social media and family and cultural values" (COE, 2021). As such, schools are considered spaces not only of academic learning, but also for the development of the whole child, including students' wellbeing. Further, schools can also be a point of access to families who are not reached by any other community interventions, or for children and families who are not in community systems because they do not meet the required thresholds.

There are many reasons why schools have been associated with wellbeing. Schools have been identified as the ideal location for the delivery of wellbeing interventions for children as they are safe, cost-effective, and flexible places in which a diverse range of interventions can be offered, and the introduction of wellbeing interventions in schools creates a healthier environment which benefits the pupils, staff, and the wider community (O'Connor et al., 2017). Results from the UK longitudinal ALSPAC study show that at age 16, school is incredibly important to the wellbeing of adolescents (even when holding all the family variables, and the same school variables at age 11, constant), almost as important as academic performance. At primary age (elementary), the study results show that teachers have more of a differential effect on the pupils' wellbeing than they do on their maths score and, staggeringly, a teacher who is skilled at improving their pupils' wellbeing in primary school makes their pupils 3.6 percentage points more likely to go to university (and reduces their likelihood of becoming depressed, anti-social, or alcoholic in their early twenties; Clark et al., 2018).

### 1.3.2 Why Should Schools Enhance the Wellbeing of their Pupils?

There are three important reasons why schools should seek to improve the wellbeing of their pupils: firstly, childhood and adolescence are important periods in their own right, and every young person has the right to have a positive experience in this critical formative period;

secondly, as we will highlight below, higher wellbeing in childhood and adolescence is associated with other benefits for young people, such as higher attainment, better mental health, and positive pro-social behaviour. Finally, it is important to maximise wellbeing in childhood and

adolescence because of the long-lasting impact this has on their future, including their adult levels of wellbeing and job prospects.

Martin Seligman, author of the Penn Resiliency Program, provides a rationale for why wellbeing should be taught in schools in his paper ‘Positive Psychology and Classroom Interventions’ (2009). Wellbeing is presented as an antidote to depression, as a way to improve life satisfaction, and to improve learning and creative thinking. This emphasis on the subjective wellbeing and the experience of the pupil has become a central focus of research in the last 15 years: rather than purely viewing childhood and adolescence as periods of preparation for adulthood, the immediate experience of the young person is valued. However, there is a question around what is included in the core business of schools and what time, money, and resources should be directed towards: creating an educational environment where skills can be learnt to lay a foundation for adulthood, or somewhere to develop the whole child, including fostering their wellbeing? Fortunately, there is no trade-off to be had: what is good for wellbeing has also shown to be beneficial for academic outcomes. Wellbeing in schools is currently largely taught via a variety of Social and Emotional Learning (SEL) interventions and, as the authors of a significant CASEL report highlight, “These positive results [of the review of SEL interventions] do not come at the expense of performance in core academic skills, but rather enhance academic achievement” (CASEL, 2007, p.1.). Therefore, schools can confidently explore wellbeing, using some of their time and resources to attempt to improve it in the knowledge that such improvements will most likely have significant positive ripple effects into what they might deem to be their core business of academic attainment, in addition to improving the immediate day-to-day experience for their pupils, and supporting the development of well-rounded functioning adults.

### Wellbeing in Relation to Skills and Learning Outcomes

An extensive and growing body of literature points to the strong link between wellbeing and learning (Hascher, 2012; Noble et al., 2008; Berger et al., 2011; Elias & Arnold, 2006). Several studies highlight the positive effect of wellbeing on academic achievement, and a few also indicate the inverse positive effect of achievement as a factor contributing to wellbeing. As The Council of Europe puts it, “there is a direct link between well-being and academic achievement and vice versa, i.e.,

well-being is a crucial prerequisite for achievement and achievement is essential for well-being” (COE, 2021). The Commissioner for Children and Young People in Western Australia (2020) also highlights that those students with higher levels of wellbeing are “more likely to have higher academic achievement and Year 12 completion rates” (p. 5). Several empirical studies draw similar conclusions. One study on ‘The Impact of Pupil Behaviour and Wellbeing on Educational Outcomes’ uses ALSPAC data to analyse the association between dimensions of wellbeing and later education outcomes (achievement and engagement). The study’s findings indicate that “Children with higher levels of emotional, behavioural, social, and school wellbeing, on average, have higher levels of academic achievement and are more engaged in school, both concurrently and in later years” (Gutman & Vorhaus, 2012, p. 3). They also found: a positive link between emotional wellbeing and progress in primary school, and with higher engagement in secondary school; higher attention skills and less troublesome behaviour are also linked with greater progress across stages of schooling; and being bullied in school versus having positive friendships are linked with lower and higher engagement, respectively. In this way, the study emphasises the importance of wellbeing for children and adolescents in primary and secondary schools and can also serve as a rationale for the pedagogic impact of wellbeing interventions (Gutman & Vorhaus, 2012).

Further evidence of the relationship between wellbeing and academic progress comes from an impact study by conducted by Oxford University (Lindorff, 2020), which found convincing evidence of a relationship between wellbeing and academic attainment, stating that there is strong international evidence to bolster the claim that when promoting wellbeing in schools, whole-school approaches can have an effect on academic attainment and, further, have positive effects on a variety of other educational outcomes (mental health, self-esteem, self-efficacy, motivation, behaviour, and decreased probability of dropout). Similarly, research into wellbeing, academic buoyancy, and educational achievement in primary school students (7–11-year-olds), found the existence of an underlying wellbeing factor, which was positively related to achievement—a relationship that was not moderated by gender and/or deprivation (Miller et al., 2013). A similar empirical study examined the effects of the Maytiv positive psychology school program on early adolescents' wellbeing, engagement, and achievement, finding significant socio-emotional

and academic benefits of incorporating components of positive psychology into school curricula (Shoshani et al., 2016). However, Aa review into youth wellbeing and the relationships between student wellbeing, academic achievement, and professional success suggests that, while strong trends exist between wellbeing and attainment in the literature, before wellbeing is incorporated into schools' curricula on a large scale, further experimental research is needed to "identify the most effective youth well-being interventions, their impact on academic achievement, and the mechanisms through which well-being improves academic performance" (Adler, 2017). Another study adds to the growing empirical evidence regarding the positive impact of Social and Emotional Learning (SEL) programs (which enhance wellbeing) in schools. This meta-analysis of school-based universal interventions involved 270,034 kindergarten through high school students, and found that "compared to controls, SEL participants demonstrated significantly improved social and emotional skills, attitudes, behaviour, and academic performance that reflected an 11-percentile-point gain in achievement" (Durlak et al., 2011). Cyclically, these attributes and behaviours also support better wellbeing in later life.

### Wellbeing for Development and Future Flourishing

Another rationale for the promotion of wellbeing in schools takes a more future-oriented approach, making the case for wellbeing as a positive precursor to future development and flourishing. As Bates & Boren (2019) explain in their conceptual framework: "the goal for wellbeing is human flourishing and flourishing rests on five pillars: positive emotion, engagement, relationships, meaning and accomplishment". They further characterise what flourishing looks like: "when children and young people are 'flourishing', they are not only curious and eager to learn, they are: creative and imaginative, connected and

empathetic, good team players, confident about who they are, resilient and persistent, positive about themselves and see themselves growing into better people".

Wellbeing conceived thus is broadly rooted in another and extensive set of literature on flourishing, which draws on concepts such as "happiness" and Aristotelian "eudaimonia". As Diener (2011) wrote, "[Happiness] is emotional capital we can spend in the pursuit of other attractive outcomes. Research shows that happy people live longer, succumb to fewer illnesses, stay married longer, commit fewer crimes, produce more creative ideas, work harder and better on the job, make more money, and help others more" (p. 20). Similarly, in their work 'Origins of Happiness', Clark et al. (2018) point to evidence that the best predictor for adult life satisfaction is wellbeing and emotional health during childhood, and that the next major influence on emotional health, after family, is school—both primary and secondary. Buecker et al. (2018) also suggest that "overall wellbeing enhances intrinsic motivation, decreases disciplinary problems, increases academic achievement, improves school satisfaction and leads to flourishing of individuals, communities, and nations". Similarly, research shows that wellbeing in adolescence predicts levels of income in adulthood, even when employing family fixed effects (with sibling clusters) and controlling for factors such as education, intelligence quotient, physical health, height, self-esteem, and later happiness (mediating factor were: a higher probability of obtaining a college degree; getting hired and promoted; having higher degrees of optimism and extraversion, and less neuroticism; De Neve & Oswald, 2012). Further, in her work around eudaimonic wellbeing into adulthood, Ryff (2017) suggests that eudaimonic wellbeing offers a protective buffer against increased health risks, particularly among the educationally disadvantaged. Drawing on such literature, therefore, it is clear that wellbeing in childhood and adolescence is important for flourishing in later life.

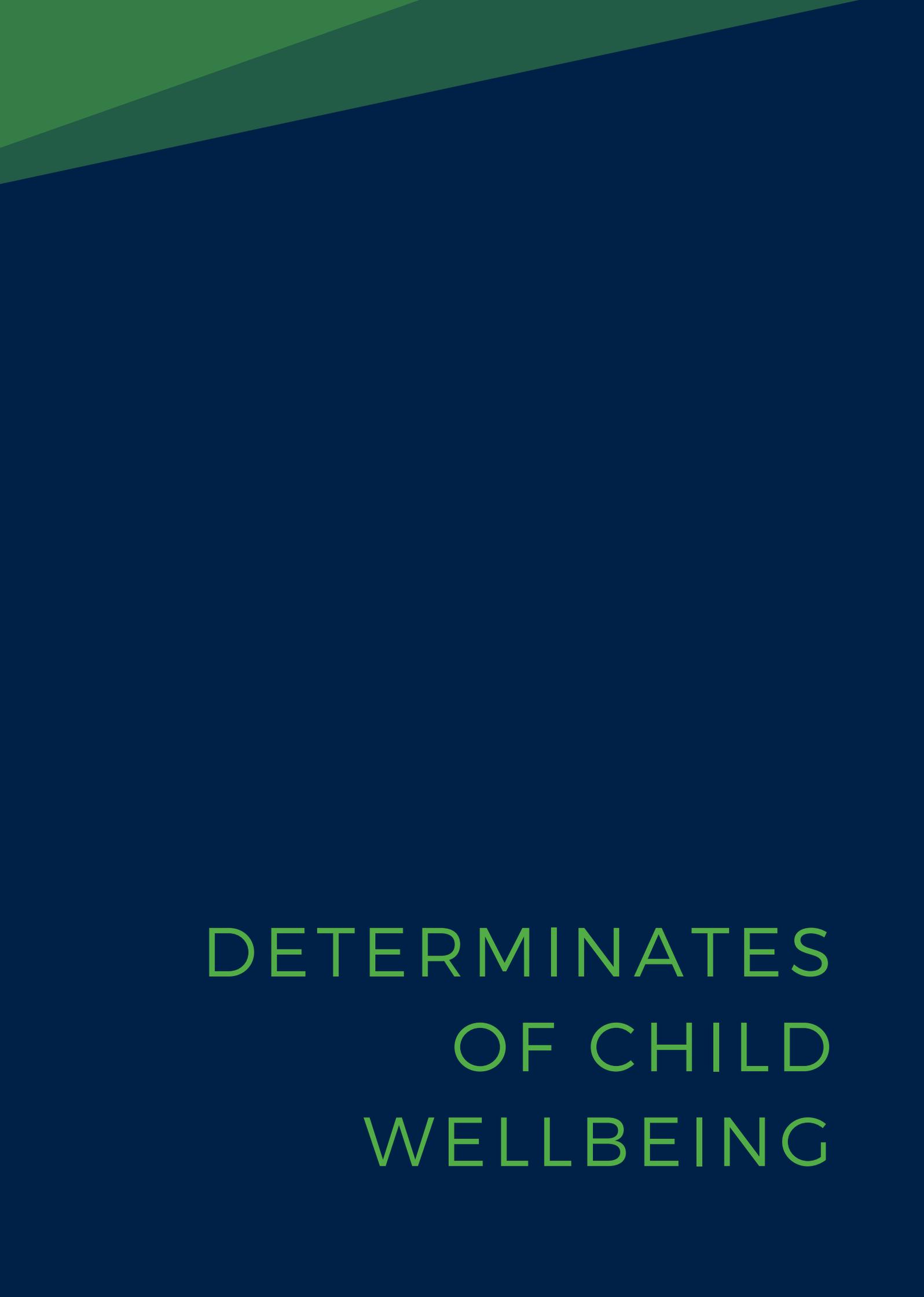
### 1.3.3 Key Findings and Recommendations

**Key Finding #3:** Schools are crucial spaces for child and adolescent development and should be a key context for wellbeing interventions due to the time that young people spend in the educational setting and the impact it can have on their development.

**Key Finding #4:** There is value in using school time, money, and resources to improve pupil wellbeing. These improvements will likely not only have immediate benefits for students but will have a driving effect on other positive outcomes (individually, socially, and academically) and have a positive impact on the future lives of the young people as they mature into adulthood.

**Recommendation #6:** There is seemingly no trade-off to make between wellbeing and academic performance. Put simply; happier children make better learners. Schools can feel confident to use time and resources to improve pupil wellbeing in the knowledge that it will likely also lead to improvements in their core business of academic attainment.





DETERMINATES  
OF CHILD  
WELLBEING

The focus of this report is child and adolescent wellbeing in schools, but naturally children don't live in a vacuum in these settings and when exploring the determinants of child and adolescent wellbeing we must look at the whole world of the child, including the parts of their life that happen

outside their educational setting. Below we highlight some of the most prominent ecological models of children's wellbeing as a point of reference to understand how some of the drivers of wellbeing might interact and as an aid to visualise their interdependent nature.

### 1.4.1 Models of Child and Adolescent Wellbeing

Though initially conceptualised in a more general child development context, Bronfenbrenner's Ecological Systems Model (1977) perhaps best frames the systems and potential drivers of pupil wellbeing. Regularly cited in the child development literature, this model demonstrates how the individual child interacts with, and is affected by multiple "settings" or "systems", from the micro level (family, peers, school) through the macro level (government policies and ideologies). The

model can also be applied to understand the complexity of elements, particularly environmental, that affect pupils' wellbeing, both within and beyond the classroom and school. This model has seeded the idea of environmental layers of influence in the world of the child, which has been adopted by many prominent child wellbeing models and governments (e.g., UNICEF Innocenti Research Centre, 2020; New Zealand Department of the Prime Minister and Cabinet, 2019).

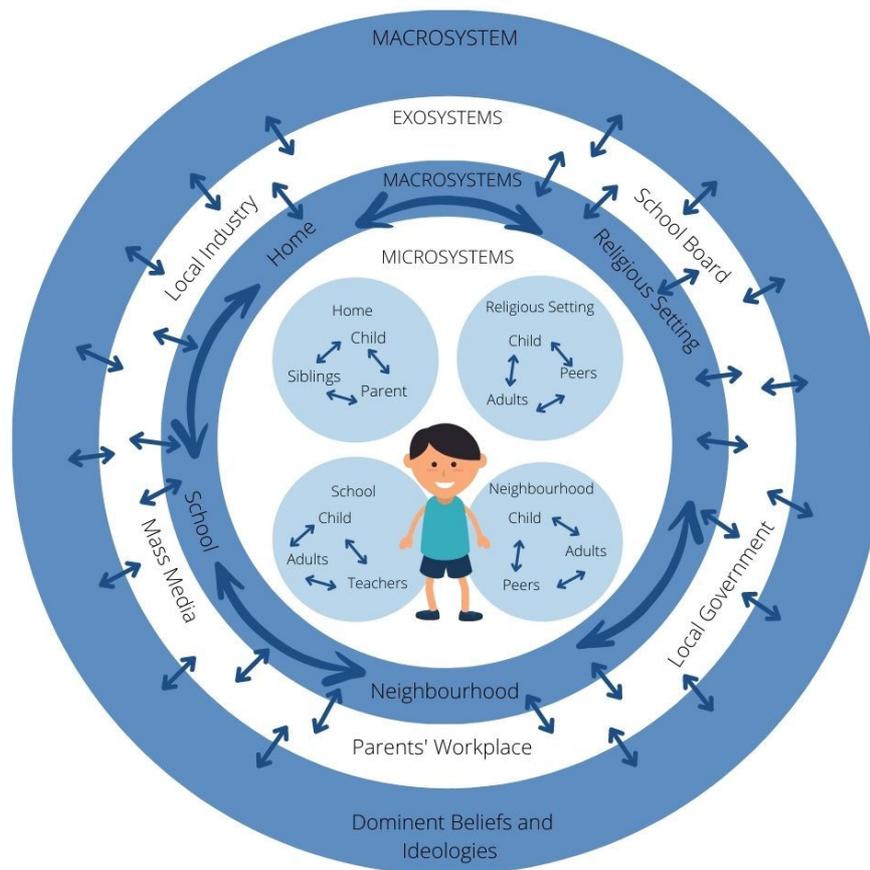


Figure 1: Bronfenbrenner's Ecological Systems Model (1977)

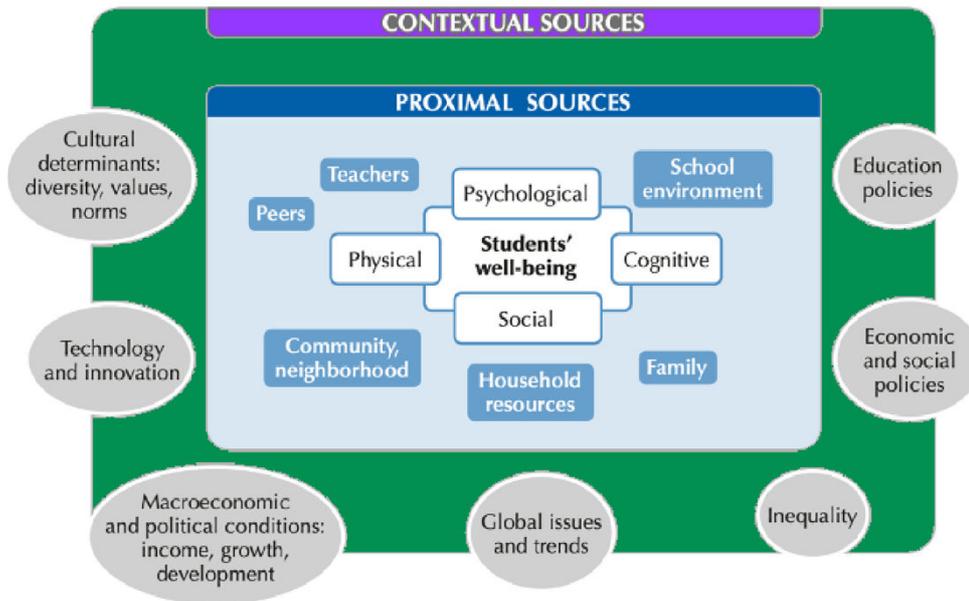


Figure 2: OECD Students' Wellbeing Model (2017)

An adaptation of Bronfenbrenner's model is presented by the OECD (2017) specifically in the context of pupil wellbeing, depicting factors in the psychological, cognitive, social, and physical realms

of wellbeing. This includes proximal (e.g., teachers, peers, school environment) and contextual sources that influence wellbeing (e.g., education policies).

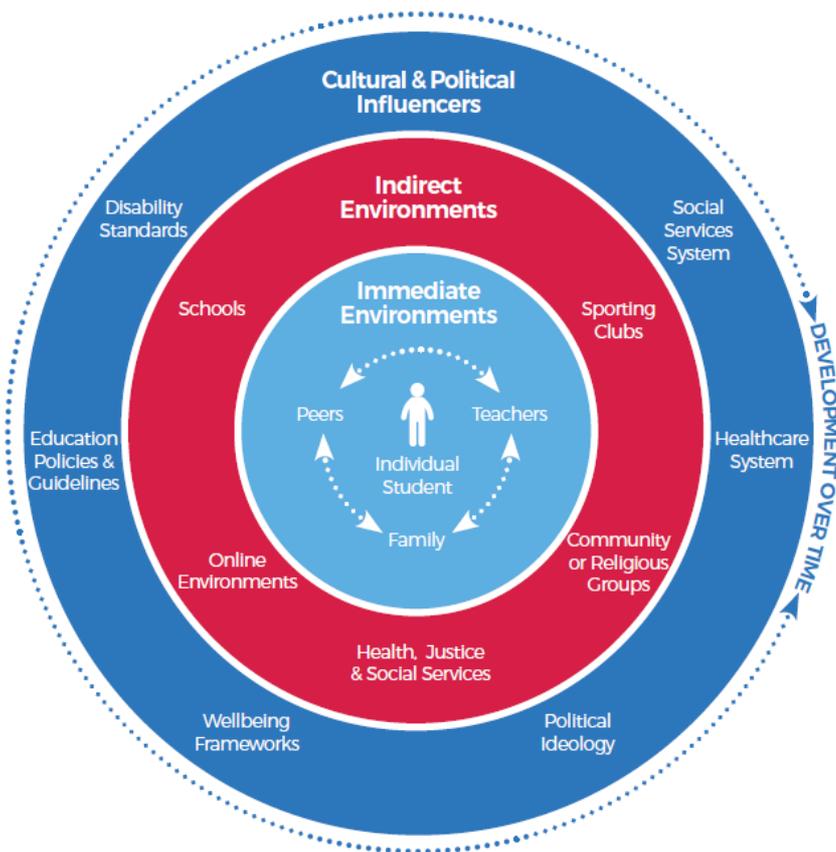


Figure 3: New South Wales Government Wellbeing Framework (2021)

A further example of how this framework might be applied in the context of student wellbeing is provided by the New South Wales Government (2021). They outline a graphic model to understand how multiple environments influence our learning, wellbeing, and development, and how risk and protective factors can impact on individuals. In this model, the child's behaviour is seen to be influenced by concentric levels of factors. These include family, peers, and teachers at the inner level; schools and other social circles at the mid-level; and cultural and political factors at the broader level. Wellbeing in schools, when viewed within this framework, is understood to be one piece (though a highly significant one) of the broader puzzle, suggesting the need for efforts that promote wellbeing to recognise factors at the various levels and connect across them for greatest impact.

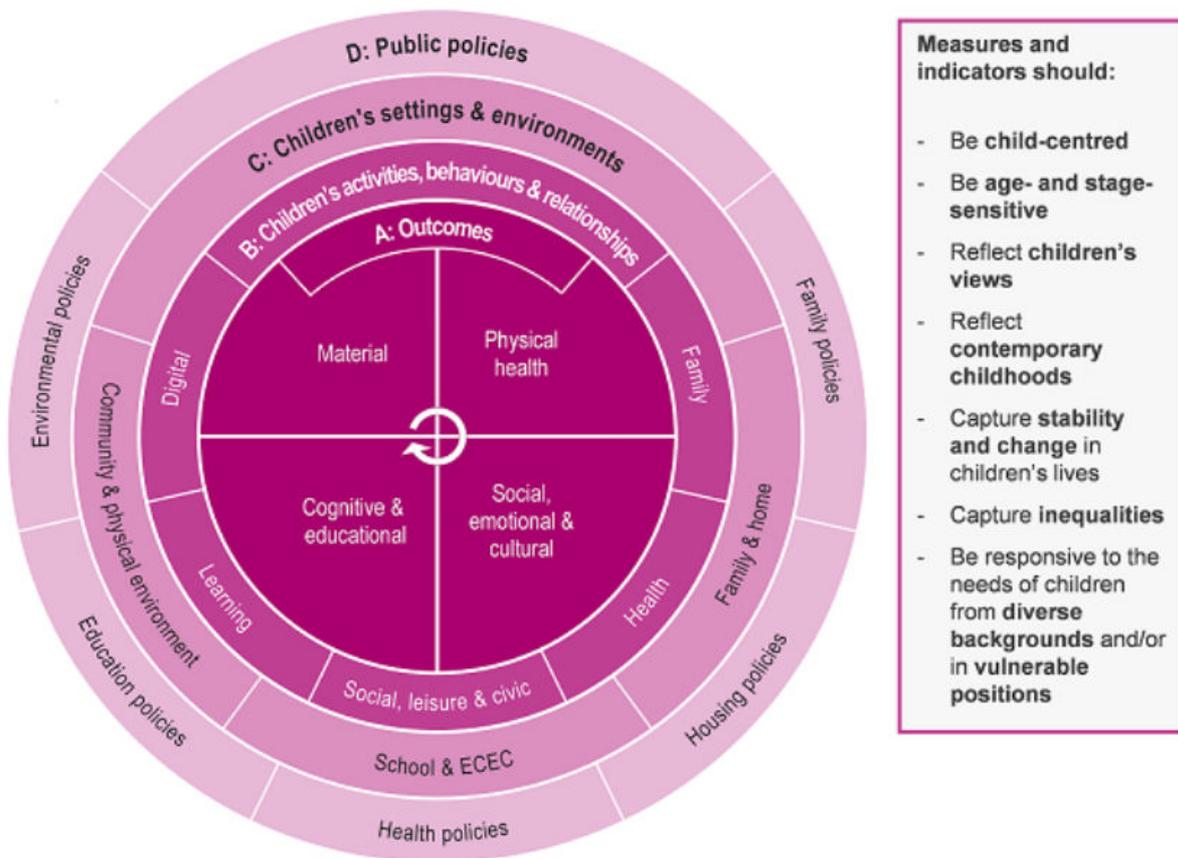


Figure 4: OECD Aspirational Child Wellbeing Framework (2021)

Most recently, the OECD have presented their Aspirational Child Wellbeing Framework in their report 'Measuring what matters for child wellbeing and policies' (2021), which aims to encompass all the relevant spheres of the child's life in relation to their wellbeing. The model emphasises four key 'outcomes' for child wellbeing which are interconnected: material outcomes (access to goods, services, and activities; such as food, clothing, housing, the internet, etc.); physical health outcomes (physical functioning and illness); social, emotional, and cultural outcomes (covering aspects like emotions, thoughts, feelings, cultural identity, safety, and social identity); and cognitive development (including cognitive learning and skills, and progression through the education system). The model represents how these outcomes sit within the wider systems in the life of

the child, ranging from the immediate family environment to the influence of public policy.

This is one of the most evidence-based and comprehensive models of overall child wellbeing to date. However, as the OECD research team highlight in their report it is not yet "a full-fledged model of child well-being, and much work remains to be done to identify precisely which dimensions should be prioritised when countries are building national data and indicator sets" (2021, p.24).

All these models aim to represent and simplify the often bidirectional interplay between a myriad of complex factors. For some of these variables, there is stronger research evidence (although rarely causal), and for some the evidence is less robust. Below, we detail some of the evidence available in these wellbeing domains.

## 1.4.2 Pupil Wellbeing

An individual's wellbeing is multi-dimensional, affected by many variables, both within the individual themselves, and external elements that either support or pose risks to wellbeing (Huebner, Gilman, & Laughlin, 1999). Such mediating factors are examined here at the individual, school, family, community, and government levels. When reviewing the wellbeing literature, it is of note that the overall picture of drivers of wellbeing is complicated. The research area is relatively new and there is a lack of robust high-level research (e.g., Randomised Controlled Trials; RCTs), and therefore very few studies where causality can be determined. Much of the research conducted and presented is correlational, cross-sectional, pre and post, or only focused on individual countries or populations. There are also very few robust systematic reviews in this area, so it is hard to draw firm conclusions about overall effects and what works for whom. In addition, although we have used the term wellbeing for consistency and simplicity, the studies presented often measure the concept in different ways (e.g., life satisfaction, psychological wellbeing, single-item, multi-item), leading to further issues of comparison. There is often not enough granular information on variables that could be relevant, such as life events and daily experience (Pickett & Wilkinson 2010; Bringmann

et al., 2013), or enough information on the wellbeing of younger children (OECD, 2021). The research presented also does not discuss research into populations of pupils who have specific needs or disabilities which will be a crucial element to explore before any IBO resources are created. The literature covered is not exhaustive, as the focus of the report is wellbeing in educational settings, but the findings presented are intended to direct the reader to some of the most prominent drivers in child wellbeing in education (and beyond) and provide insights that might encourage conversations amongst school stakeholders about which factors might be influential in their educational settings. It is important to note that in some cases there may be small trade-offs between wellbeing in the moment and well-becoming in the future (such as facing manageable difficulty in the present which will produce wellbeing benefits in the future; Ben-Arieh & Frønes, 2007; Clark et al., 2019; Raghavan & Alexandrova, 2015; Conti & Heckman, 2014), but also that in many cases emotional wellbeing in childhood is a key determinant of adult physical health and wellbeing (Poulton et al., 2015; Clark et al., 2019; Flèche et al., 2019; Lansford, 2018; Clark et al., 2018).

### 1.4.2.1 Individual

Although CYP should not be considered as one single group from birth to 18, there are certain things that all children need such as clothing, food, and shelter. However, the extent to which these factors and others predict subjective wellbeing is a topic of great interest to families, educators, and policymakers. There is a vast body of literature about the socio-demographic drivers of subjective wellbeing, and research suggests that socio-demographic factors account for 10–20% of the variance in subjective wellbeing (Rees et al., 2012; Rees et al., 2013; Goswami, 2014). Below we explore some of these variables in more detail, it is worth noting that these variables frequently interact (with many of the variables interchangeable as drivers, mediators, and outcomes). For clarity, we have explored each driver individually, noting interactions where possible.

#### 1.4.2.1.1 Age

Several studies suggest that subjective wellbeing decreases with age (Casas, 2011; Currie et al., 2012; Goswami, 2014; Klocke et al., 2014; Rees et al., 2010; Casas et al., 2007; González-Carrasco et al., 2017; Singh et al., 2015; Casas & Gonzalez-Carrasco, 2019), decreasing from childhood into adolescence (around the same time as the average onset of puberty). However, some studies have, on the contrary, found stability in life satisfaction (Bokhorst et al., 2010; Crespo et al., 2011; Gilman & Huebner, 2003; Suldo & Huebner, 2004; Lawler et al., 2015; Lawler et al., 2017; Newland et al., 2014; Newland et al., 2015). Other findings point towards a U-shape in which wellbeing dips initially in early adolescence but increases again in later adolescence (Salmela-Aro & Tuominen-Soini, 2010; Viejo et al., 2018). These findings in the difference in wellbeing trajectories may be partially explained by different wellbeing measures across studies (Strózik et al., 2016), or differences between the samples studied (individual differences, including

age across the sample, and intraindividual change). Findings from childhood and early adolescence from the longitudinal UK ALSPAC study suggest that there is a small but significant decline in wellbeing across this period. Interestingly, the data suggest that for most of the dimensions of wellbeing that they measured, only around 50–60% of children experience stability, with the remaining (40–50%) being spilt between either increased or decreased wellbeing over time. Critically, the only exception to this pattern was school wellbeing, where fewer children in the study experienced stability and more experience decline, this was particularly the case in mid-childhood around the onset of puberty (Gutman, Brown, Akerman & Obolenskaya, 2010).

#### 1.4.2.1.2 Gender

As with the body of research on age, contradictory findings also exist for gender. Some research has found that adolescent girls have expressed lower levels of wellbeing than boys (Viejo et al., 2018; Bradshaw & Keung, 2011; Rees et al., 2010), and this is sometimes associated with age (Gonzalez-Carrasco et al., 2017) or body image and self-esteem (Savoye et al., 2015). Whereas some studies found that boys reported lower levels of wellbeing (Casas et al., 2013; Tomyń & Cummins, 2011), and other studies found no gender differences (Huebner et al., 2006; Seligson et al., 2003; Shmotkin, 1990; Okun & George, 1984). PISA 2018 data shows that across 56 countries there is an 11-percentage-point difference between the percentage of boys and girls stating they are 'satisfied' with their lives (61% for girls and 72% for boys; there is also a gender gap of 5% for pupils stating they are 'not satisfied'; Schleicher, 2019). A recent review of gender differences in subjective wellbeing in children and adolescents suggested small gender differences with boys reporting higher wellbeing (Chen et al., 2020). This study also showed varying gender differences across wellbeing domains (satisfaction with life overall; with school; and with friends) and across countries, with the gender gap being larger in some regions than others. This indicates that how wellbeing is measured may also influence whether gender differences are found. Research in Poland using Children's Worlds data demonstrated that at 8- and 10-years-old boys and girls were both equally satisfied with their lives, but at age 12 girls reported being significantly less satisfied than boys (using a one-item life satisfaction measure; Strózik et al., 2016). This difference did not, however, reach significance using two other wellbeing scales in the same survey. This gender difference is also supported by findings from the ALSPAC study,

which suggested that girls were more likely to report lower levels of wellbeing, and greater declines in their wellbeing, from mid-childhood to early adolescence. Boys reported lower school wellbeing, behavioural wellbeing, and social wellbeing, but the gender gap in social wellbeing narrowed from mid-childhood to early adolescence (Gutman et al., 2010). Importantly, across the child and adolescent wellbeing literature, gender often interacts with other predictors of child and adolescent wellbeing as children of different genders (across the gender spectrum and non-binary) often have different life experiences, and as Chui and Wong (2016) argue, the formation of subjective wellbeing may have different processes for boys and girls (which also differ intra- and inter-culturally). The majority of research which includes gender as a variable focusses on gender at birth and reports only on male and female CYP, while this is an omission that some researchers are attempting to address, often it is challenging to report across the gender spectrum and on CYP who identify as non-binary due to a lack of statistical power from smaller sample sizes. However, this is an element of wellbeing research which will likely expand and advance in the near future.

#### 1.4.2.1.3 Ethnicity

The formation of children's ethnic identity is a complex developmental process involving cognitive adjustments (Wakefield & Hudley, 2007). While no inherent differences in children's subjective wellbeing have been found due to ethnicity (Gilman & Huebner, 2003; Huebner et al., 2006), discrimination, in particular, can have an effect on wellbeing; leading to low-self-esteem, stress, and depression (Wakefield & Hudley, 2007). A review by Oldfield and Jackson (2019) highlights that the racial abuse suffered at school by Aboriginal children in Australia can have long term-impacts on their lives and wellbeing. However, school-based interventions which focus on culturally responsive and sustaining pedagogy can increase wellbeing and resilience, and the development of a positive or strong ethnic identity can have protective factors such as positive psychological functioning, coping strategies, and self-confidence (Martinez & Dukes, 1997; Wakefield & Hudley, 2007). Another area of research which is partially linked to ethnicity is immigrant status in schools. Research has suggested that students who were immigrants in high schools in the USA felt more discriminated in schools than any other context (Rumbaut & Portes, 2001). A meta-analysis of the effect of racial discrimination on wellbeing found that higher perceived racial discrimination was linked to a

variety of negative outcomes: more depressive and internalising symptoms; greater psychological distress; poorer self-esteem; lower academic achievement and engagement; less academic motivation; greater engagement in externalising behaviours, risky sexual behaviours, and substance use; and more associations with deviant peers (Benner et al., 2018). In addition, a systematic review of 121 studies has emphasised how impactful racial discrimination can be on the mental health of young people, with 76% of outcomes in these studies showing significant associations between racial discrimination and negative mental health and over 50% between racial discrimination and wellbeing, behavioural problems, self-esteem, resilience, and pregnancy/birth outcomes (Priest et al., 2013).

#### 1.4.2.1.4 Socioeconomic Status (SES)

The findings on the relationship between SES (often studied as parental income [material wellbeing], parental education level, and parental occupation) and subjective wellbeing are mixed (Knies, 2012; Rees et al., 2012; Bradshaw et al., 2011; Dinisman & Ben-Arieh, 2016). Some quantitative studies find that there is a very small relationship or no relationship between family income and child wellbeing (Knies, 2012; Main, 2014; Gadermann et al., 2016), whereas some qualitative studies suggest there is a link (Ridge, 2002; The Children's Society, 2017). However, quantitative studies do show a link between income and child wellbeing when material deprivation, intra-household financial allocation, and subjective material wellbeing are taken into account (Knies, 2012; Main, 2014; Main, 2019), and quantitative associations are more robust when measures of material deprivation are used (Knies, 2012; Main, 2014; Zaborskis et al., 2019; Sarriera et al., 2015; Gross-Manos, 2017), particularly when they are child-derived measures (Main, 2014; Lau & Bradshaw, 2018; Main & Bradshaw, 2012). Perceived poverty is linked to lower wellbeing (Goswami, 2014) and The Children's Society (2015) highlights that self-reported material deprivation in childhood is more important than family SES, explaining more of the variance in subjective wellbeing. More recently, researchers are highlighting the importance of the subjective nature of material deprivation (e.g., Schleicher, 2018), in addition to objective SES, as it is important to ascertain whether children perceive themselves as having more, less, or about the same as their peers. The PISA data also showed a strong relationship between SES and wellbeing, with those

with higher SES being eight-percentage-points more likely than their lower SES peers to report that they are satisfied with life (PISA, 2018). However, the UK ALSPAC study highlighted that a 10% rise in family income would only increase a child's wellbeing by 0.012 standard deviations, and this small impact is supported by other research studies (Brooks-Gunn, Duncan & Britto, 1999; Yeung et al., 2002; Mistry et al., 2002; Washbrook et al., 2014; Clark et al., 2018). There are likely to be many mediating factors between SES and subjective wellbeing, as higher income can buy access to many of the other things which are likely to drive wellbeing (e.g., safe environment within housing and community, access to good schools and resources, parental wellbeing, food, appropriate clothing, and internet access; Ridge, 2002, Main, 2019; Wagmiller & Adelman, 2009). These multiple mediators make the relationship between SES and wellbeing particularly hard to disentangle (Kahneman & Deaton, 2010) but accounting for the child's own perception of their material wellbeing has delivered useful insights.

#### 1.4.2.1.5 Genetics

Meta-analyses have shown that the weighted genetic heritability of subjective wellbeing ranges from 31–41% (Bartels, 2015; Nes & Røysamb, 2015; Vukasović & Bratko, 2015) still leaving a large proportion of variance to be explained by other factors (individual, environmental, cultural, etc.; or partially due to random measurement error). Genetic research has shown that the environment contributes to the drivers of wellbeing, such as personality (Røysamb & Nes, 2018). However, due to the role that the environment plays in expression of genetic traits (epigenetics) we will never be able to fully disentangle the influence of genes and environment. As Nes and Røysamb highlight (2015), although research has suggested that subjective wellbeing remains stable over time, it has also been shown to change within a population across time and can be affected by events in early life and various interventions.

#### 1.4.2.1.6 Psychological Functioning

Psychological functioning is a broad area which contains a multitude of potential drivers of wellbeing in childhood and adolescence. This breadth means that the research studies which explore these potential drivers are usually smaller-scale correlations or pre-post studies; indeed, most areas of psychological functioning lack high-end research (such as RCTs, systematic reviews, and

meta-analyses) as they are more difficult to methodologically operationalise than some other variables, such as physical activity or sleep. Some of the main areas in the literature are summarised below, with recommendations about which areas should be explored further by school stakeholders. In most areas of psychological functioning, there is currently an absence of strong research evidence, but the variables which show potential to be drivers of wellbeing (directly, or indirectly by moderation or mediation) that merit further exploration have been identified.

The OECD (2013) suggests that the four main facets of psychological functioning described in the academic literature are competence, autonomy, meaning or purpose, and optimism. Research shows that the acquisitions of emotional skills and competencies has been shown to reduce depression and anxiety (Shucksmith et al., 2007; Waddell et al., 2007; Blank et al., 2009). A limited systematic review of 17 studies into adolescent conceptions of success and the implications for wellbeing found that research in this area is limited (Gill et al., 2021). Preliminary findings suggested that success regarding autonomy, relatedness, and competency, are all related to increased wellbeing. These findings should, however, be viewed with caution, due to some methodological challenges and the heterogeneity of the measures employed across the studies, which render comparisons challenging. Meaning in life is also an important factor in wellbeing and cross-sectional studies have shown that there is an association between the two. PISA data (OECD, 2017) show that the share of students who agreed that their life has clear meaning or purpose was 37 percentage points larger amongst adolescents who reported being satisfied with their lives than amongst adolescents who reported that they are not satisfied. However, there were variances in these differences across cultures. A multivariate linear regression conducted by Konu et al. (2002) suggested that ‘means for self-fulfilment’ was one of the strongest factors in young people’s lives to predict their wellbeing (along with social relationships). ‘Character strengths’ (or virtues) such as gratitude are another area of psychological functioning which has been explored in the adult literature (e.g., McCullough et al., 2002; Watkins et al., 2003). However, there is not a great deal of high-quality scientific literature available which specifically focuses on these in childhood and adolescence in relation to wellbeing, although they are often featured in the positive psychology literature (e.g., Seligman, 2002). Similarly, religious and spiritual elements have not received a great deal of attention, with more

research focused on secular alternatives, such as mindfulness (see below; although mindfulness is rooted in the Buddhist tradition, in childhood and adolescence it is usually taught using secular curricula).

### Optimism

Optimism is frequently explored as an influencer of wellbeing and its drivers and is often included in wellbeing models (such as PERMA+; Seligman, 2018). It makes logical sense that teaching children to view the positive elements of situations, where possible, would make them more satisfied with their life and increase their wellbeing. However, much of the research is correlational and usually focuses on optimism about the more distant future (such as about climate change; PISA, 2018), rather than viewing things optimistically in the immediate future. In addition, more of the research focuses on the relationship between optimism and the drivers of wellbeing, or vice versa, rather than wellbeing itself. For example, in a study exploring sleep and optimism in childhood, the authors found that sleep duration showed a non-linear, reverse J-shaped relationship with optimism (sleep duration in the middle of the distribution resulted in higher in optimism, compared with sleep deprivation; Lemola, Raikkonen, Scheier, et al., 2011). In adolescence, optimism has been shown to be a protective factor for mental health problems, with some evidence that it can protect from depressive symptoms (Ames, Rawana, Gentile et al., 2015), anxiety (Dooley et al., 2015), and is associated with lower risk behaviours such as cigarette smoking and drug use (Ansari et al., 2018), and has been shown to be a moderator between suffering and wellbeing (Lai, 2009; Kaiser, 2015). Therefore, optimism merits further exploration as to its relationship to wellbeing in childhood and adolescence. Related to optimism, growth mindset has been a prominent feature in the education literature because of its relationship with academic outcomes (see Sisk et al., 2018), it has not featured heavily in the CYP wellbeing literature, and no definitive conclusions about its impact on wellbeing can be drawn, with only some smaller studies showing a relationship (e.g., Jach et al., 2018). However, a meta-analysis into the relationship between mindset and mental health highlighted that those children (aged 4–19) who had a fixed mindset were more likely to show pronounced mental health problems, suggesting that a growth mindset may be beneficial, at least indirectly, for wellbeing (Schleider, Abel & Weisz, 2015).

### Self-Control

Self-control is one of the most highly researched topics in developmental psychology (Duckworth & Steinberg, 2015). Longitudinal research, like the Dunedin study (which follows the development of 1,000 children into adulthood over 40+ years in New Zealand), suggests that self-control in childhood predicts adult success (health, wealth, and social success; across the population; Moffitt et al., 2011), and impulse control abilities 40 years later (in a small sample; Casey et al., 2011). Similarly, a meta-analysis of self-control in childhood (with over 215,000 participants across studies), confirmed that self-regulation (self-control) in childhood can predict achievement, interpersonal behaviours, mental health, and healthy living in later life (Robson et al., 2020). Some evidence suggests that self-control is positively associated with wellbeing in adolescence (Orkibi et al., 2014), and positivity ratio (the experience of more positive affect, on balance, than negative; Orkibi et al., 2018). A further small study reported that self-control predicted wellbeing in adolescents and buffered against the effects of a personal crisis (Ronen et al., 2016), and another study, with a similar population of adolescents in Israel, found that the relationship between self-control and wellbeing was partially mediated by the adolescents' perceived satisfaction of their basic psychological needs (competence, relatedness, and autonomy). Longitudinal research suggests that children with strong parent-rated self-regulation at age 4 (attention span persistence) had 50% greater odds of completing university (at age 25; McClelland et al., 2013). Although there is an absence of large-scale robust research into self-control and wellbeing in childhood and adolescence, it is clear that there are a growing number of associations with wellbeing and its drivers, and further exploration, given the life-long impact of self-control, is warranted.

### Emotion Regulation

A systematic review of the promotive and protective effects of **emotion-regulation (ER)** suggests that training in ER in young people has largely positive outcomes, including for mental health, and leading to decreased psychopathology (Aldao et al., 2010; Compas et al., 2017; Daniel, Abdel-Baki, & Hall, 2020). The authors of one systematic review (Daniel et al., 2020) state that, "Results indicated that there is good evidence that ER functions as both a promotive and protective factor for psychological and behavioural outcomes

for children and adolescents. Specifically, the current review suggests that ER promotes positive outcomes in terms of reduced internalizing and externalizing difficulties, and improved mental health outcomes, such as reduced symptoms of depression and anxiety. In summary, the majority of published studies available indicated that ER is beneficial in a variety of contexts and for diverse samples in terms of psychological and behavioural outcomes" (p. 2010). The authors further suggest that since ER is modifiable, particularly in younger populations, it is a prime area for intervention. ER has also shown to be positively associated with resilience (Daniel, Abdel-Baki, & Hall, 2020; Gartland et al., 2019; Ogelman & Önder, 2019) and negatively related with overeating behaviour (Favieri et al., 2021), and with adverse peer experiences (Herd & Kim-Spoon, 2021). Given that much of the research presented here is from good-quality systematic reviews, and show relationships between ER and wellbeing, or its drivers, across childhood and adolescence, school stakeholders should consider ER interventions for pupil wellbeing and examine whether they would be beneficial in their school setting.

### Personality

Personality is one factor which has been explored for its link with wellbeing. Personality is defined as our set of traits or characteristics that contribute to our thoughts, feelings, and behaviours. The concept is regularly explored as a driver of subjective wellbeing, often measured in terms of the 'big five' traits of openness, conscientiousness, agreeableness, extraversion, and neuroticism—though others are frequently included, such as resilience and optimism, depending on the measure used. Diener (2009) suggested that personality is a major determinant of subjective wellbeing in adulthood, and research has shown that up to 18.5% of the variance in child subjective wellbeing can be explained by personality (whereas only 15% are explained by sociodemographic factors; Goswami, 2014). However, this research also highlights that those individual factors such as material deprivation and age can have a greater effect on subjective wellbeing than personality traits like conscientiousness, openness, and extraversion. Garcia (2011) found that the traits of neuroticism, extraversion, conscientiousness, and persistence were strongly associated with wellbeing in a sample of adolescents in Sweden. However, there have been methodological issues highlighted with personality and wellbeing research: there might be conceptual overlap between the measurements of some personality

traits and the emotional aspects of subjective wellbeing (suggesting they may be measuring the same concept, rather than one being a driver or predictor of the other; Bradshaw, 2015), which would explain why personality seems to account for such a large proportion of the variance in wellbeing. Another potential problem with personality as a predictor of subjective wellbeing is cross-cultural differences about what elements each trait includes. For example, Camfield (2012) highlights that in urban Ethiopia, the concept of resilience has social competency elements which would not be present in definitions of resilience in more western nations like the USA, which are more self-focused. There is also a debate surrounding whether personality is fixed or malleable; some researchers argue that personality, more so than age or gender, is malleable and can be moulded and shaped by environmental influences— influences which are particularly powerful in childhood (Roberts & DelVecchio, 2000; Røysamb & Nes, 2018), and relate to wellbeing (evidenced in adulthood in Boyce, Wood & Powdthavee, 2013), whereas some researchers argue that it is fixed (Costa & McCrae, 1980, 1988). Other researchers argue that it is not the malleability of personality that is important, but the individual's (implicit or explicit) belief about whether they can change it (Dweck, 1999). Due to the debate surrounding the plasticity of personality and the methodological overlap in some of the main areas of personality and wellbeing measurement, it might be more beneficial for school stakeholders to focus on other areas linked to personality, such as resilience and optimism, which are more distinct, rather than personality as a whole.

### Resilience

A review by Public Health England (Allen, 2014) into **resilience** in childhood and adolescence suggested that “Resilience can be thought of as an essential component of mental wellbeing—and programs that increase mental wellbeing may do this partly through impacting on resilience. Similarly, good mental health shares common causes with resilience” (p. 9). The report argues that resilience is malleable and develops across the lifespan, and should therefore be considered as a key area for intervention. The authors indicate that a great deal can be done within the daily operation of schools which can save schools money in terms of reducing negative outcomes such as truancy and exclusion. Resilience is also a key element in many SEL programs, including in the social and emotional aspects of learning (SEAL) program, which is implemented in 90% of primary schools and 70% of

secondary schools in the UK (Public Health England, 2014). Khawaja et al. (2017) found that resilience plays an important role in wellbeing outcomes for migrant and refugee children integrating into new schools (including building institutional resilience, which lessens the need for individual resilience to the demands of moving to a new culture), and longitudinal research shows that resilience is an important factor which has cascading developmental effects into adulthood, having an effect on relationships, cognitive skills, and socio-emotional skills (Masten & Tellegen, 2012; OECD, 2018). Other longitudinal research also supports the findings of the impact of childhood resilience in later life: findings from the Kauai Longitudinal study show a wide range of positive outcomes in childhood (such as getting on better with classmates and better reading and reasoning skills) and mid-adulthood (positive self-concept, internal locus of control, more achievement oriented, and more assertive and independent if female) associated with resilience (Werner & Smith, 2001). Although training in resilience will not mitigate against the negative outcomes of all, or likely very severe, adversity (Bürgin & Steck, 2008), similarly to self-control, its long-term impacts on many of the drivers of wellbeing merit further exploration for implementation in school settings.

### Self-esteem

Self-esteem (also often termed as self-concept/identity/image/perception/worth/estimation/regard) is an important factor in childhood and adolescence which interacts with wellbeing and many of its drivers, often playing a moderating or mediating role (as mentioned across many of the other drivers in this chapter; Garmezy et al., 1984; Glick & Zigler, 1992). Self-esteem is the evaluative and effective dimension of a young person's self-view and includes the young person's knowledge and beliefs about their personal attributes and qualities. Self-esteem is often regarded as a protective factor which can buffer against some of the negative drivers of wellbeing (bullying, body-image, challenging relationships, etc; Mann et al., 2004). There is a complex interplay between self-esteem, wellbeing, and its drivers, which can be challenging to disentangle. As an example, one small study which has explored the relationship between self-esteem, belongingness, and physical activity in adolescence and young adulthood found a complex interplay between the three variables (which are all associated with wellbeing) which included daily fluctuations (see Mazereel et al., 2021). Research has shown that self-esteem can be a protective factor, and adolescents with higher

self-esteem were less likely to participate in a variety of risk behaviours (Rouse, 1998), such as using drugs or drinking alcohol (Carvajal et al., 1998). Self-esteem is highly malleable in childhood and adolescence and should be explored by school stakeholders as a way of potentially directly and indirectly improving pupil wellbeing.

### Mindfulness

Mindfulness has been of great interest to schools and has been suggested as an impactful way to buffer against mental health problems in whole student populations. However, the demand for these mindfulness interventions and the pace at which they are being implemented has outpaced the scientific research. Many schools have employed mindfulness interventions, but the scientific evidence has, until recently, been limited. Systematic reviews have suggested that mindfulness might be a promising intervention in schools to improve mental health and wellbeing (Zenner et al., 2014). However, the authors noted that the wide heterogeneity of the studies included in the review made it challenging to draw firm conclusions. The first large gold-standard randomised controlled trial into mindfulness in schools is due to be published imminently (My Resilience in Adolescence [MYRIAD]; Kuyken, 2017) and will determine whether mindfulness should be considered as a potential driver of wellbeing in the school setting.

#### 1.4.2.1.6.1 Mental Ill Health

Mental illness is an important issue in childhood and adolescence. Half of severe mental health problems have their onset by age 14 (Kessler et al., 2007) and between 10 and 20% of children worldwide report clinical levels of mental health problems, such as depression and anxiety (Kieling et al., 2011; Collishaw, 2015; Choi, 2018). Schaefer et al. (2017) found that only 17% of the sample of the Dunedin longitudinal study had never experienced a mental health problem (this sub-population also reported higher life satisfaction in adulthood), suggesting that mental health problems are common across individuals at some point in their life. It is important to note again that mental health problems and wellbeing are separate constructs (not two ends of a continuum) and are not very highly correlated (Patalay & Fitzsimmons, 2016); for example, you can have a mental illness and still report high wellbeing, and equally you can have no history of mental illness but still report low wellbeing. However, higher subjective wellbeing in childhood is negatively associated with mental

health problems in adulthood (Fergusson et al., 2015). Research has suggested that subjective wellbeing is predicted by depression and anxiety, amongst other contextual variables (Galinha & Pais-Ribeiro, 2012). Mental health interventions in childhood and adolescence are critical beyond any direct or indirect impact on wellbeing, due to the impact that mental health problems in childhood and adolescence have for the individual while they are experiencing them, and for later in life in terms of life years lost, educational outcomes, relationship difficulties, occupational outcomes, and recurring depression (Copeland et al., 2015; Costello & Maughan, 2015; Murray et al., 2012; Sadler et al., 2018). However, although the literature is limited, we know that schools only have a small, albeit significant, impact on mental health (Hale et al., 2014).

#### 1.4.2.1.7 Physical Health

Overall physical health is a key determinant of wellbeing in childhood and adolescence (Palloni et al., 2009; Conti & Heckman, 2013; Currie, 2020; Almond et al., 2018; Mallo & Wolfe, 2020). Those with better physical health in childhood have been shown to have higher educational attainment and better outcomes in later life; economic, occupational, and in terms of wellbeing (Currie, 2005; Currie, 2009; Jackson, 2010; Jackson, 2015; Patton et al., 2016; Poulton et al., 2002). There is also a significant relationship between illness and wellbeing in childhood: an exploration of Children's Worlds data at ages 10 and 12 shows that subjective wellbeing is significantly lower in children who have allergy-related conditions (asthma, eczema and/or seasonal allergic rhinitis; Hanpaa et al., 2018).

In a WHO report, Currie et al. (2012) examined the relationship between health outcomes and indicators that describe current levels of health and wellbeing, including life satisfaction, health complaints, medically attended injuries, body weight, and weight-reduction behaviour. Health behaviours (relating to indicators that are potentially health-sustaining) included eating behaviour, oral health, and energy expenditure (sedentary vs. vigorous lifestyle). In contrast, risk behaviours (relating to indicators that are potentially health-damaging) were identified as including use of tobacco, alcohol, cannabis, sexual behaviour, fighting, and bullying. Sexual health is also an important factor in the wellbeing of adolescents, especially when sexual activity results in Sexually Transmitted Infections (STIs), which can lead to worries about judgement and

confidentiality, in addition to the negative physical health implications (Caini et al., 2014; Mullinax & Mathur, 2017). In addition, HBSC data also suggests that there is a negative association between drug use (alcohol, tobacco, and marijuana) and wellbeing in adolescence (Klocke et al., 2014). In their review of physical activity and mental health in children and adolescents, Biddle and Asare (2011) suggest there is a paucity of good quality research, but that primary research does show a link between poor mental health and sedentary behaviour. However, as with all these associations, we cannot determine causality. It is highly likely that there is a bi-directional relationship between physical health and wellbeing throughout the lifespan, and a review by Huppert (2009) has highlighted that increased wellbeing strengthens the immune, hormonal, and physiological systems, and it may be the case that these improvements are also drivers (or moderators/mediators) of other positive outcomes.

#### 1.4.2.1.7.1 *Physical Activity*

Physical activity influences wellbeing in several ways. It protects against excessive body image concerns (Gaspar et al., 2011) and improves cognitive ability (Martínez-Gómez et al., 2011; Sibley & Etnier, 2003; Bidzan-Bluma & Lipowska, 2018; Carson et al., 2016), motor skills (Zeng et al., 2017; Bidzan-Bluma & Lipowska, 2018), and health (Timmons et al., 2012). Physical activity also impacts on wellbeing in the long-term (especially negative physical and mental health outcomes) because habits formed in childhood and adolescence have been shown to persist into adulthood (Hallal et al., 2006; Iannotti et al., 2009; Malina, 1991; McMurray et al., 2008; Sibley & Etnier, 2003). It has also been found that physical exercise has an effect in the short-term and children who frequently exercise or play sport report higher levels of subjective wellbeing (Abdallah et al., 2014; Marques et al., 2017; Kleszczewska et al., 2018). Physical health is included in most of the major child and adolescent wellbeing surveys because it is recognised as a crucial part of wellbeing and overall health.

Being overweight also has other effects on wellbeing in adolescence, increasing the likelihood that teens will engage in risky behaviours (risky weight-loss activities, substance abuse, and risky sexual behaviour) and report poorer mental health (Currie et al., 2012; Kaufman & Augustson, 2008; Kvalem et al., 2011; Verplanken & Velsvik, 2008). Girls report more dissatisfaction with their body

image than their male peers do (Marcotte et al., 2002) and this dissatisfaction with their body image influences their subjective wellbeing (Rees and Main, 2015). The WHO recommends that children and adolescents spend an hour a day doing some sort of moderate to vigorous physical activity (Strong et al., 2005), and most schools offer pupils at least one hour per week of physical activity (OECD, 2017). However, pupils may have more opportunities for school-based physical activity in younger adolescence than older (when academic attainment becomes more important and time-consuming).

Across the OECD countries, 43% of pupils reported that they exercise (or play sport) before school and 66% after. Advantaged young people and boys were more likely to report physical activity outside school. Pupils who engage in some moderate or vigorous physical activity are less likely to feel anxious about tests (2.9%), feel like an outsider at school (6.7%), skip school frequently (3%) and be frequently bullied (2.2%). Data from the Millennium Cohort study in the UK shows a positive association between physical activity and wellbeing in early adolescence (Brylka et al., 2021). This collection of mostly correlational evidence is also supported by some recent systematic reviews and meta-analyses (e.g., Bermejo-Cantarero et al., 2021; Poitras et al., 2016; Andermo et al., 2020) which confirm a significant relationship between physical activity and wellbeing. Given the other known health benefits of physical activity, we highlight it as a key area where schools can practically, inexpensively, and (generally) safely influence the wellbeing of their pupils, and it is the area in this report with the most robust supporting evidence as a driver of child and adolescent wellbeing. The research suggests that the earlier this health promotion occurs, the better (Hallal et al., 2006), and that at least 60 minutes per day of moderate-to-vigorous physical activity should be encouraged (Poitras et al., 2016).

#### 1.4.2.1.7.2 *Diet and Nutrition*

There are two elements of nutrition that can influence wellbeing. The first is the basic need of having access to clean water and sufficient daily food to survive and develop appropriately in childhood and adolescence. The second is having access to and consuming nutritionally beneficial food throughout childhood and adolescence: the WHO recommends daily intake of fruit, vegetables, protein, healthy fats, milk, and water for children and adolescents (and limiting non-healthy fats, salt, and sugar; WHO, 2021). In the early years, access

to sufficient food is critical to development, and research has shown that many children across the world do not consume one hot meal a day (Andresen, 2014). Even within some OECD countries (e.g., Mexico) there are high proportions of children who do not have readily available access to clean drinking water (UNICEF, 2021).

There is growing evidence that eating nutritious food has not only benefits to children's physical health, but also to their mental health and wellbeing. For example, a review found that poor diet (as classified by processed food and high levels of fat and carbohydrates) was linked to poorer mental health (Wu et al., 2019). Across the OECD countries, 9% of children lived in households where at least one child did not have access to nutritious foods (fruit and vegetables or a meal with meat) at least once a day (OECD, 2019), and for those in low-income families this rose to a troubling 16%. Data from across OECD countries (PISA, OECD, 2015) suggested that 26% of girls and 18% of boys had skipped breakfast that morning, with much fewer students reporting that they skipped dinner. Those who had eaten dinner reported higher wellbeing than those who had skipped it (a 0.7-point difference for boys and a 1.0-point difference for girls). Young people who eat dinner with their families also report better physical and emotional wellbeing. The evidence into healthy eating behaviours as a driver of wellbeing is not as robust as physical activity, but given the known positive effect healthy eating has on overall health (and mental health), it should be included as a driver of wellbeing (as it is highly likely that, even if it isn't a direct driver, that it impacts on other variables which are, such as general health and mental health).

#### 1.4.2.1.7.3 Sleep

Children and adolescents need more sleep than adults on average; with 12–13-year-olds needing 9–11 hours and 14–17-year-olds needing 8–10 hours. In the USA, between 66% and 92% of children meet these sleep requirements on a nightly basis, and the American Academy of Paediatrics estimates that sleep problems affect 25–50% of children and 40% of adolescents (Bhargava, 2011). Lack of sleep in childhood and adolescence has been shown to have negative effects for pupils at school, such as tardiness and disciplinary actions (Thacher & Onyper, 2016), along with associations with other factors such as depression, anxiety, overeating, drug use, general health problems, obesity, cardio-metabolic risks, reduced emotion regulation, effects that can mimic

ADHD, poor immune system function, and lower overall wellbeing (Chaput et al., 2016; Dewald et al., 2010; Hanlon et al., 2019; Kim et al., 2013; Knight & Dimitriou, 2019; Shochat et al., 2014). Getting sufficient sleep, meanwhile, has positive effects such as alertness, cognitive performance, resilience, learning, and memory (Pesonen et al., 2010; Hairston et al., 2016; Waldon et al., 2018). The relationship between sleep and wellbeing in childhood is likely to be non-linear and U-shaped; too little or too much sleep can have negative associations such as behavioural issues and poor global health (James & Hale, 2017).

Longitudinal sleep research in Switzerland and Norway suggests sleep duration is predictive of wellbeing for adolescents (Kalak, et al., 2014), and a meta-analysis on the effects of school start time suggested that later start times were associated with longer sleep duration, which is beneficial for wellbeing (Bowers & Moyer, 2017). However, this area of research has a lack of high-quality studies: it is challenging to conduct gold-standard research (such as RCTs) on the topic because of the methodological challenges of randomly assigning schools to adjust their school day, and the disruptive operational effect this has on timetabling, staffing, and families. A systematic review into later school start times found that the quality of studies was generally very poor with a high or unclear risk of bias. One of the studies in the review did show that later start times had an association with lower depressive symptoms—but wellbeing was not reported (Marx et al., 2017). Research demonstrated that even delaying the start of the school day by 25 minutes could lead to a 29-minute sleep duration increase, leading to lower levels of depressed mood and daytime sleepiness (Boergers et al., 2014; Bowers & Moyer, 2017), although this study was limited by a small sample size and results should therefore be interpreted with caution.

A diary study of adolescents' sleep suggested that schoolwork and stress during the day were modestly consistently associated with less sleep that night. Fewer hours sleep was modestly consistently related to higher levels of anxiety, depressive feelings, and fatigue the following day. Interestingly, the daily variability in sleep time was just as important for the young people's average levels of daily psychological wellbeing as the average amount of time sleeping each night. This suggests that adolescents should not rely on catching up on sleep at the weekend, but that consistent daily good sleep habits are needed. A nationally representative English study of 120,115

adolescents (15-year-olds) suggested that sleep was one of the biggest predictors (along with eating behaviour and bullying) of wellbeing (Gireesh et al., 2018). A Norwegian longitudinal study (with participants aged 6–12 years old) found that shorter sleep duration was positively associated with symptoms of psychiatric disorders at younger ages (but no association in the opposite direction), suggesting that, although we cannot determine causality, sleep duration and quality are important factors for mental health and possibly indirectly for wellbeing (Ranum et al., 2019). Further, a study into longitudinal sleep trajectories found that children with increased middle childhood sleep problems experienced greater internalising and externalising symptoms and worse quality of life, but this did not impact directly on their academic outcomes (Williamson et al., 2020).

#### 1.4.2.2 Family

The most robust body of research found regarding environmental factors that influence pupil wellbeing deals with the family and home environments. These factors can either boost children's wellbeing or can act as risk factors and heighten vulnerabilities. The OECD (2019) examines some of the latter. The factors listed include material deprivation, parents' health and health behaviours, parents' level of education, intimate partner violence, and family stress. The quality of relationships with family members (Chu et al., 2010; Corsano et al., 2006; Gilman & Huebner, 2006; Goswami, 2012; Govender et al., 2014; Marshall, 2004; Moore et al., 2018; Lawler et al., 2016; Lawler et al., 2017; Newland et al., 2014; Newland et al., 2015), the interactions with family members (having fun, playing, talking, and learning together), and the interest shown, is highly important to young people's wellbeing (Lawler et al., 2017; Newland et al., 2014; Newland et al., 2015; Oberle et al., 2011).

#### Parents

The PISA 2015 data (OECD, 2017) highlights that a clear way to improve wellbeing in children is to encourage parents to become involved in their child's school life (if they aren't already). Researchers found that, together with bullying and schoolwork-related anxiety, perceived parental support regarding school was the only factor associated with students' life satisfaction across all 33 countries analysed (and had the largest effect size; Marquez & Main, 2020). Parents and teachers should build mutual trust and open

communication, and governments should promote work-life balance to ensure that parents have the time to support their children's activities and learning. A child's perception of how interested their parents are in them and their school life, and their parents' trust in their ability to complete academic tasks, can have positive effects on their attitudes to education and can reduce levels of negative affect (tension) while they study. Further, research shows that academic motivation is also positively associated with wellbeing (PISA, 2015). However, academic motivation is also associated with feeling stressed before a test, so there is a delicate balance between motivation and fear of failure (PISA, 2015). Data from the UK ALSPAC longitudinal study (Gutman & Vorhaus, 2012) suggests that child–parent relationships are important for wellbeing in childhood and early adolescence: children who reported positive parent-child relationships were significantly more likely to experience improvements in (emotional and behavioural) wellbeing and less likely to experience declines in subjective school wellbeing. When parents' feelings about their child were assessed, those who reported positive feelings had children who were significantly more likely to experience improvements in wellbeing than those whose parents reported negative feelings (Gutman et al., 2010). Although these findings are from longitudinal research, which gives more detail about wellbeing over time than cross-sectional research, the findings are still not causal.

Parenting style influences children's wellbeing: a parenting style that is punitive, dismissive,

There is likely a direct relationship between sleep and wellbeing, but sleep is also certainly associated with other drivers of wellbeing (depression, anxiety, drug use, health problems, obesity, etc.). Therefore, there is a clear rationale for interventions in student's sleep patterns to support their wellbeing. Schools can help pupils with their sleep through several mechanisms: educating children on sleep-hygiene, sleep disorders, and age-appropriate sleep routines; helping children to cope with the demands of their schoolwork, for example by ensuring a manageable workload to reduce stress and burnout; educating parents on appropriate sleep behaviours; and educating teachers to identify and support students who may be suffering from sleep deprivation. These should be considered in addition to formal school-based sleep interventions.

overbearing, or rejecting, has negative outcomes for children such as low happiness, declines in pro-social behaviour, and school performance (Putnick et al., 2015). Whereas if parents provide an environment where they support adolescents' autonomous behaviour, this is associated with higher wellbeing (Kocayörük, Altıntaş & İçbay, 2015). Longitudinal research with 10–15-year-olds suggested that family and friends were significant factors in their wellbeing; with children with lower wellbeing referring to the importance of family, friends, and having basic needs met, and those with higher wellbeing focusing more on family (Navarro et al., 2015).

Communication between parents and children seems to be particularly important for child wellbeing (more so than structure and affluence), improving better mental health, and preventing drug use (Moore et al., 2018; Newland et al., 2019). Children who talk to their family members more frequently about things that are important to them also report higher subjective wellbeing (Abdallah et al., 2014). Further, it is important for children's wellbeing to feel that they are consulted in family decisions (Gonzalez et al., 2015; Rees et al., 2012), especially for girls. Data from the 2015 PISA surveys (OECD, 2017) shows that the children of parents who reported talking to children, sharing meals with them, and discussing their school life were 22–39% more likely to report greater wellbeing, with spending time talking having the strongest and most frequent association with wellbeing (and these children were a third of a school year ahead in science learning after controlling for SES).

Relationship with the mother is particularly important to child wellbeing (Levin et al., 2012) and data from the ALSPAC study (Gutman & Vorhaus, 2012) suggests that a mother's mental health is the single most important family factor which predicts wellbeing at age 16; the father's mental health was also important, but less so (Clark et al., 2018). Interestingly, the wellbeing reported by parents seems to have more of an effect on daughters than sons (Casas et al. 2012), and conflict in the family can lead to behavioural problems (Goldberg & Carlson, 2014). The structure of the family also matters: several studies have shown that the children of parents who are separated and live apart, and those from single parent households, report lower wellbeing than their peers who live with both parents (Rees et al., 2012; Rees et al., 2013; Klocke et al., 2014). Parental marriage contributes to child and adolescent wellbeing (Ribar, 2015), with marriage often providing

greater stability, family social interactions, and financial provisions (Shek et al., 2014; Wahyuningsih et al., 2020; Keresteš et al., 2012; Stanescu & Romer, 2011; Tran & Richey, 1997; Meggiolaro & Ongaro, 2014). Brown (2004) suggests that “children living in two-biological-parent cohabiting families experience worse outcomes, on average, than those residing with two biological married parents, although among children ages 6–11, economic and parental resources attenuate these differences” (p.1). Similarly, among adolescents, strong relationships with parents were shown to be protective against a range of behaviours that affect health and wellbeing in adolescence, including substance use, violence, and early initiation of sexual behaviours (Robinson, 2006). Another factor which can have an effect is parental unemployment (Powdthavee & Vernoit, 2012; Kind & Haisken-DeNew, 2012; Klocke et al., 2014).

All the factors that we measure which concern parents only account for 6% of the variance in adolescents' emotional health at age 16 (Clark et al., 2018). However, this is a significant amount in real-world, rather than statistical terms, and this is likely higher in younger ages. Although there is a great deal of research on parents, there is very little rigorous academic research into the relationship between siblings and how they influence each other's levels of wellbeing. In addition, there is a strong inter-generational aspect of vulnerability, as well as the concentration of vulnerable children within particular family and community groups. Research shows how similar vulnerability factors can emerge from traumas: including homelessness, domestic violence, parental drug abuse, neglect, and physical or sexual abuse (Jacob & Ryan, 2018), which in turn can have a detrimental impact on wellbeing.

### Home Environment

Family-related factors can help boost wellbeing, acting as a buffer to risk-factors. Bergström et al. (2015) suggests that “the home environment as well as parental styles and practices play an important role in the development of children's dietary and physical activity habits, and therefore the home is a crucial setting to promote healthy behaviours among children” (p. 2). An early study into the nature and importance of attachment relationships to parents and peers during adolescence found that the quality of attachment to parents was predictive of wellbeing (even more powerfully so than attachment to peers). Moreover, quality of attachment to parents

showed a moderating effect under conditions of high life stress on the measures of self-esteem (Greenberg et al., 1983). Variations are noted between family support and wellbeing in adolescents of different ethnicities or migrant families (Runarsdottir & Vilhjalmsson, 2019). In addition, spending time as a family unit is important; the frequency of family activities is more predictive of wellbeing than economic variables (Lee & Yoo, 2015).

The physical home is also important for child wellbeing: not only does it offer security and stability, but also links to their support networks (wider family, friends, familiar local services), school, and usual activities. Frequent changes in residential circumstances, especially moves to socio-economically deprived areas and eviction, can have negative outcomes, both behavioural and educational (Nathan et al., 2019; Jelleyman & Spencer, 2008). Some research has also shown that the quality of the home environment in childhood relates to emotional and behavioural problems in late adolescence (Coley et al., 2013). However, again, it is hard to disentangle the effect of home environment on wellbeing as poor housing quality is often associated with other factors which could lead to lower wellbeing, such as food scarcity or

### 1.4.2.3 School

Wellbeing at school is becoming more of a focus for researchers (Karatzias, Power & Swanson, 2001; Tian et al., 2015). Each school ecosystem is unique and complex, and the factors that influence wellbeing at school are varied. Much research has been focused on school climate, connectedness, attitudes towards the school (overall school-life, and the organisation and buildings), teachers, peers, safety, and security (Hofman et al., 1999; Samdal et al., 1999). However, schools are predominantly focused on educational attainment, and this can cause a friction between supporting pupils' wellbeing and helping them achieve academically. Research studies highlight that large proportion of students report a disliking for school, a lack of engagement, and negative affect about school (McGill et al., 2012; Natsuaki et al., 2009), and that satisfaction with school decreases as children get older (Rees & Main, 2015). This focus on attainment (particularly from a government perspective) means that wellbeing at school can often be underfunded and underprioritised, due to the limited time and resources that are available to schools, meaning that wellbeing is not measured, and interventions are not funded. As the authors of the World Happiness Report suggest; if schools do

neighbourhood safety. An important predictor of wellbeing is whether the environment at home meets the child's basic needs, such as a place to study (Lawler et al., 2016; Lawler et al., 2017; Newland et al., 2014; Bradley & Corwyn, 2004).

It is clear from the research evidence outlined above that families, unsurprisingly, play a crucial role in young people's wellbeing. However, as this report is written from a school perspective, we must be realists about how much the school can affect home life. Areas that schools can potentially impact are parental education about wellbeing (of themselves and their children), parental involvement in school life, by opening channels of communication and ensuring a mutually supportive environment, and by making all areas of school life accessible to parents (for example, not putting school governors' meetings at inconvenient times for working parents). School should, where possible, involve caregivers in any wellbeing interventions that they implement with pupils (in inception, design, and implementation) so that they can support their children through the intervention and also reinforce the principles at home.

not measure wellbeing, they will never prioritise it (Helliwell et al., 2015). This is troubling as schools (as we will describe later) are one of the key universal environments for delivering these interventions and supporting young people's wellbeing.

At the school level, wellbeing factors are largely related to relationships (with peers and teachers), school environment, school culture, pressures, and achievement. García Bacete et al. (2014) examined the effects of school on the wellbeing of children and adolescents. They list several school-related factors that impact wellbeing, in many diverse modalities. Their list places primary importance on the benefits of friendship and peer relationships, the school climate (in terms of safety and physical ecology), the school goal structure, and the implementation of cooperative learning. Similarly, the WHO's 2012 report points to social determinants of health and wellbeing among young people (Currie et al., 2012). Within the school environment, they include indicators such as close friendships, pressures from schoolwork, and perceived school performance, as well as classmate support. The impact of academic performance on

wellbeing (particularly among older adolescents) is also highlighted by Steinmayr et al. (2019), and the inverse effect of personal and social factors (such as wellbeing, behaviour, affect, attitude, and cognition) on academic achievement have also been documented (Lee & Schute, 2010).

Recent research has started to explore the two worlds that children experience at school: academic (grades, learning, teachers, etc.) and social (peers, school social life, etc.; Casas et al., 2013; Casas et al., 2014; González-Carrasco, 2017; Schleicher, 2019). Interestingly, research evidence supports this theory (using structural equation modelling) in some countries but not others, and some gender differences cross-culturally are also present (González-Carrasco, 2017). Rees and Main (2015) highlight that there is a wider amount of cross-cultural variation in children's feelings about school issues than other elements such as safety or health. Other research has shown that schools have different influences dependent on the country: Clair (2014) found that schools in the USA had a greater influence on their pupils' wellbeing than schools in the UK.

### School Satisfaction

School satisfaction is the overall appraisal of one's school experience (Huebner, 1994). Although it is an important stand-alone concept (Verkuyten & Thijs, 2002), it is also an important factor in young people's overall wellbeing (Gilman & Huebner, 2003; Huebner et al., 1998; Suldo et al., 2008; Roseth, Johnson & Johnson, 2008; Jennings & Greenberg, 2009; Madrid, Canas & Ortega-Medina, 2007; Morschheuser, Hamari & Maedche, 2019). However, schools only explain a small (but significant) percentage of the variance in overall wellbeing of pupils, typically 1–7% (Rathmann et al. 2018; Clair, 2014; Oberle et al., 2011; Konu et al., 2002), and there is wide variation internationally in the size of these school effects (Marquez & Main, 2020). Though this percentage is statistically small, it is great in real-world terms, and schools are a near-universal crucial point of access to children for interventions. Children's Worlds data suggest that the drop in subjective wellbeing aged 10–12 is most prominent in the school setting (Rees & Main, 2015) and research from the ALSPAC study has shown that primary (elementary) and secondary (high) school quality have large effects on emotional health, behaviour, and attainment (Clark et al., 2018). More modestly, a meta-analysis of the association between wellbeing and academic achievement found a small-medium positive correlation (Bücker et al., 2018). Research also

shows that if schools meet young people's developmental needs and are challenging enough, then they can be psychologically healthy environments (Baker et al., 2003) and contribute to wellbeing (Suldo & Shaunessy-Dedrick, 2013; Zullig et al., 2011). Their emotional wellbeing also then has a cyclical effect on young people's school engagement. However, the contribution differs with age and, as young people progress through the school system, their emotional wellbeing becomes a more important predictor of their school engagement (with demographic factors becoming less important; Gutman and Vorhaus, 2012).

A recent meta-analysis has shown that school is the domain where the largest gender differences arise, with girls showing higher rates of satisfaction (wellbeing) with school than boys (Chen et al., 2019), and this seems to be largely true cross-culturally to varying degrees (Huebner, 1994; Liu et al., 2016; Casas et al., 2007; Rees et al., 2012; Rees & Main, 2015), with bigger gender differences in wellbeing in European samples than North American, or Asian samples (Chen et al., 2019). Research has shown that boys and girls have very different experiences of school, with boys reporting a greater dislike of school and lower academic outcomes (Martino, 1999; Millard, 1997; Ofsted, 2009; Kessels et al., 2014; Halpern, 1997).

### School Climate

There are many definitions and measurements of school climate. Often it is defined as a measure of both the physical and psychological elements of a school: resources available, teaching quality, trust in staff, and senior leadership (Cohen et al., 2009; Loukas, 2007; Wang & Degol, 2016). However, some definitions only focus on the psychosocial elements (Brookover et al., 1978), while some primarily focus on school being a physically and socially safe place (Brookover et al., 1978; Cohen et al., 2009). Although most school wellbeing researchers agree that a positive school climate is important for young people's wellbeing, there is no clear consensus amongst researchers about which elements of school wellbeing are important for pupil wellbeing (Cohen & Geier, 2010; Thapa et al., 2013; Wang & Degol, 2016). Findings from the PISA data (OECD, 2018) highlight the areas of school climate that were associated with wellbeing: disciplinary climate, student competition, student co-operation, students' sense of belonging at school (each area had its own index for measurement in the PISA data). A negative school climate is associated with increased behavioural

problems (Wang et al., 2010; Schleicher, 2019), whereas a better school climate enhances school performance, especially for pupils from low SES backgrounds (Aldridge et al., 2016). Students with the weakest belonging at school scored 5.85 on average on PISA life-satisfaction scales (wellbeing), whereas those with the strongest sense of belonging scored 8.05 on average. This highlights how important it is to enhance the school climate and ensure that pupils feel that their school is the right fit for them.

In their systematic review of the relationship between school climate and adolescent mental health and wellbeing, Aldridge and McChesney (2018) reviewed 48 articles and suggested that although causal claims cannot be made due to a lack of experimental and longitudinal studies, school climate has a strong association with pupil mental health and wellbeing. Further, they suggest that this is an encouraging finding for teachers, who often feel ill-equipped to run mental health and wellbeing interventions; they feel more confident that they have been trained how to improve the school (and classroom) environment for pupils. The review confirms the findings of previous research (Cohen et al., 2009; Kutsyuruba et al., 2015; Thapa et al., 2013; Wang & Degol, 2016) that there are four main sub-constructs of school climate: social connectedness, safety, school connectedness, and the academic environment.

Data from PISA has shown that sense of belonging at school positively correlates with life satisfaction and emotional wellbeing (Gilman & Anderman, 2006; Marquez & Main, 2020; Millings et al., 2012) and findings from the HBSC data (ages 11, 13, and 15) suggested that amongst other social factors, the school environment was found to be crucial to their development of self-esteem, self-perception, and health behaviour. Children who perceived their school to be more supportive were more likely to have higher levels of life satisfaction (Ravens-Sieberer et al., 2004; Freeman et al., 2009; Vieno et al., 2007). The findings suggest that school plays a mediating role in supporting young people's wellbeing and acts as buffer against negative health behaviours and outcomes.

Other research has suggested the relationship between school climate and pupil wellbeing is mediated by resilience (Aldridge et al., 2016; Riekie et al., 2017), and the relationship between school climate and mental health is mediated by gender (Gerard & Buehler, 2004; Nijs et al., 2014; Ormerod et al., 2008; Pisani et al., 2012; Pittman & Richmond, 2007; Plenty et al., 2014; Suldo et al.,

2012; Walsh et al., 2010; although not in Loukas et al., 2006) age (Lester & Cross, 2015; Nijs et al., 2014; Noble et al., 2011; Pisani et al., 2012; although not in Gerard & Buehler, 2004), and ethnicity (Gerard & Buehler, 2004; Pittman & Richmond, 2007). This research demonstrates that school climate may influence pupil wellbeing indirectly by improving other factors that are important for young people's wellbeing: for example, the teachers' availability to build respectful relationships with pupils might be facilitated by a school climate that values these relationships and makes time in the school day (such as registration, home room, or form time) to nurture them (Patalay et al., 2020). Research has shown an association between positive school climate and (self-reported) health and wellbeing (Cohen et al., 2009), more positive responses to the demands of school life (Huebner et al., 2004), lower perceived stress (Torsheim & Wold, 2001) and higher academic achievement (Jia et al., 2009). Further, pupils who are in conflict with their teachers and peers have lower test scores and academic performance (Hughes et al., 2008), and pupil-teacher conflict is negatively related to the social and emotional climate in the classroom and positive attitude to learning (Dotterer & Lowe, 2011).

### School Connectedness

School connectedness (the young person's perception of their relationships with staff, peers, the value of the school in their life, and inclusion) may be another mediator. School connectedness has been shown to be related to pupil mental health (Kidger et al., 2012; Shochet et al., 2006), and a mediator of the relationships between several school climate measures (friction among students; student cohesion; student competition) and risk behaviours (conduct problems; Loukas et al., 2006). In childhood there is a positive association between school (or social) connectedness and wellbeing (Shochet et al., 2006; Olsson et al., 2013). School connectedness and belonging is also important for many of the variables that are important for student wellbeing. A meta-analysis of 82 (correlational) studies of the relationships between school belonging and pupils' motivational, social-emotional, behavioural, and academic outcomes in secondary education suggested that across age and SES, on average, a small positive correlation was found between school belonging and academic achievement. Further, small to moderate positive correlations were found between school belonging and mastery goal orientations, self-concept, self-efficacy, and

with behavioural, cognitive, and agentic engagement. However, results did vary to some degree across region and the measurements used (Korpershoek et al., 2020). Further, Cunsolo (2017) highlights that parenting support, school contexts, and school connectedness are among the most significant predictors of academic achievement and wellbeing.

Liking school is also associated with other positive outcomes, while disliking school is associated with other negative outcomes. Pupils who reported that they like their school also reported lower rates of bullying (Harel-Fisch et al., 2011), reported that they take fewer risks to their sexual health (Dias et al., 2005), and reported less frequent drug use (Fletcher et al., 2008). Whereas lower liking of school is associated with higher rates of health problems (Shochet et al., 2006), and a greater likelihood of dropping out of school (Archambault et al., 2009). However, these findings are correlational rather than causal. It is noteworthy that many pupils report not feeling safe at school (Cohen & Geier, 2010), and that safety is an essential element of their happiness (ONS, 2020) yet research has shown that adults typically underestimate how safe young people feel (Thapa et al., 2013). Given that safety is an important part of school climate and wellbeing, this should be an important focus for schools when considering how to improve their overall environment for pupil wellbeing.

### Classroom Climate

Classroom climate is also an important factor in students' wellbeing and learning, which can affect peer relationships and the availability of teachers for one-to-one support (Collie et al., 2012; Rucinski et al., 2018), and perceived teacher support is associated with wellbeing outcomes for children and adolescents (Tennant et al., 2015; Danielsen et al., 2009). These relationships are especially important for those young people with behavioural problems (internalising or externalising), with positive relationships being associated with better academic and social/emotional outcomes, and conflicting relationships being related to more negative outcomes (Sabol & Pianta, 2012; Curby et al., 2013). The classroom is an important place for young people to foster relationships, and this is aided by cooperative teaching styles where young people work together (Roseth et al., 2008). This style, and a competing-teams environment also have positive outcomes in the classroom, including academic achievement (Kyndt et al., 2013). Encouragingly, research using PISA data (OECD,

2018) found that cooperation was more prevalent amongst students than competition (62% cooperation, compared with 52% competition).

### Extra-curricular Activities

Another element of school wellbeing is the opportunity for extra-curricular activities. In the USA in particular, 75% of 14-year-olds participate in school extra-curricular activities (Mahoney et al., 2003), and more recent research shows 70% of pupils do at least one activity (Feldman, 2007). The time in extra-curricular activities allows pupils to interact more with their peers who share similar interests, and possibly interact with different adults at the school (Dworkin et al., 2003; Gould, Feltz & Weiss, 1985; Smith, 2003). A literature review on the role of school-based extra-curricular activities suggests that although the outcomes of these activities seem largely positive, the findings are complicated (especially when moderators are included). Moreover, high quality research into the link between extra-curricular school-based activities and wellbeing is sparse, and the findings are mixed (Feldman & Matjasko, 2005). School democracy, that is participation in school activities and children's ability to speak for themselves, also impacts learning experiences, liking school, and positive health perceptions, including wellbeing (De Róiste et al., 2012). School engagement and wellbeing is also a two-way causality: for example, as children move through the school system, social and emotional wellbeing becomes more and more important in explaining school engagement (Gutman & Vorhaus, 2012).

### Connections With Peers

A literature review on the key factors relating to adolescents' subjective wellbeing and education outcomes found that the major factors surrounding adolescent wellbeing are related to the social dimensions of life, focusing on relationships between family, school peers, friends, teachers, and other adults (Cunsolo, 2017). Higher quality relationships with peers in adolescence has been shown to have positive effects on health (Barker & Galambos, 2003; Zambon et al., 2006). There are also gender differences in the ways that interactions with peers, teachers, and family affect wellbeing: research shows that for boys, their peers, teachers, and family all indirectly affect wellbeing (through psychological factors) and only family support was directly related to their wellbeing; whereas for girls, family and teachers were indirectly related (through their effect on self-efficacy) and family, teachers, and peers were also

directly related to wellbeing (You et al., 2017). Several factors that relate to friendships have been shown to relate to wellbeing, for example: number of friendships; number of interactions; friendship satisfaction; group attitudes; and bullying (Chu et al., 2010; Corsano et al., 2006; Gilman & Huebner, 2003; Goswami, 2012; Marshall, 2004; Marques et al., 2017; Marquez & Main, 2020; Oberle et al., 2011; Tiliouine, 2015).

### Bullying

Bullying is a prominent factor in pupil wellbeing (Pedersen et al., 2007; Rudolph et al., 2005; Flouri & Buchanan, 2002; Navarro et al., 2015) and data from PISA (OECD, 2018) suggests that 23% of students are bullied a few times a month, and 88% of pupils agreed that it is wrong to participate in bullying and good to help those who are being bullied. PISA data (OECD, 2018) highlights that those students with the least exposure to bullying report a life satisfaction (or wellbeing) score of 7.47 on average, whereas those with the most exposure report an average score of 6.35, which is a significant shift of over 1-point, which in adulthood is equivalent to becoming unemployed. Further, the data also suggest that a one-unit increase in exposure to bullying was associated with a 0.50-point decrease in wellbeing. The data from the 2015 PISA questionnaire (OECD, 2017) indicate that schools must do more to foster an environment of safety, tolerance, and respect for children. They suggest that anti-bullying programs must critically train teachers in how to respond to reports of bullying behaviour and how to engage parents. Those who are supported by their parents are less likely to report experiencing bullying, and only 44% of parents of the frequently bullied had spoken to their child's teacher in the last year about their child's development.

It is clear from the literature that bullying in childhood and adolescence has an impact on pupil wellbeing, and experiences of bullying in school heighten the risk of mental illness (Arango et al., 2018; Bonell et al., 2019; Clarke & Lovewell, 2021). The Children's Society highlights that bullying has a much stronger impact on wellbeing than many other contextual factors, and that those pupils who are bullied report much lower subjective wellbeing than the general population (2015). Pupils who are bullied (be it mentally or physically) are more likely to report depression, loneliness, and anxiety (Olweus, 1991; Craig, 1998; Nansel et al., 2001; Due et al., 2005), abuse drugs and alcohol (Molcho et al., 2004), have poor academic attainment (Moore et al., 2018; Currie et al., 2012; Olweus,

1991; Glew et al., 2008; Olweus, 1994) and report lower wellbeing (Kutsar & Kasaeru, 2017). It is not only the victims of bullying who bullying behaviour impacts; the perpetrating behaviours are also associated with negative outcomes (health, social, and academic; Glew et al., 2008; Nansel et al., 2001; Harel, 1999; Olweus, 2011; Farrington et al., 2011), and both the victims and perpetrators of bullying experience lower wellbeing than observers (Flaspohler et al., 2009; Navarro et al., 2015). Rates of bullying and the impact this has on wellbeing vary internationally and bullying is a better predictor of wellbeing in richer countries than poorer ones (Bradshaw et al., 2017). Young people's experiences of bullying behaviour (whether victim, perpetrator, or observer) are a moderator of the relationship between teacher support and pupils' wellbeing and self-esteem, with these relationships being less important for the perpetrators of bullying (Sarkova et al., 2014). Bullying varies by age and type, with psychological bullying more common amongst older girls and physical bullying more common amongst younger boys (Tiliouine, 2015; Moon et al., 2015; Olweus, 2013; Monks et al., 2012; Craig et al., 2009). Exposure to bullying also has a significant impact on international child subjective wellbeing rankings (using HBSC data from 2009–10; Klocke et al., 2014). Of course, bullying does not only happen in person, on the school grounds; it can now move outside of the school premises, particularly using digital forms of communication such as social media platforms.

### Social Media

The effect of social media on adolescents is complex, with some literature stating that it has a negative effect on wellbeing, particularly body image for girls (McDool et al., 2020). Others state that it differs strongly across adolescents (Beyens et al., 2020), while some find a positive impact (Beaudoin, 2007). PISA (OECD, 2018) data highlights that amongst adolescents, internet use has increased over the last 6 years; from an average of 18 hours per week in 2012 to 27 hours in 2018. In 2018, those who reported being least satisfied with their lives reported using the internet most (OECD, 2018). However, we cannot determine causality from this research, and it may be the case that, for these young people, there are other reasons for their low wellbeing (such as unsafe neighbourhood, or no access to other activities) that lowers their wellbeing and, in tandem, increases their internet use.

The World Happiness Report highlighted that those adolescents in the USA who spent long hours on social media were less happy than previous generations (Helliwell et al., 2019). Research has suggested that those who spend more time browsing the internet were more likely to develop depressive symptoms than their peers who spent more time with their families and peers instead (Twenge, 2019; Twenge et al., 2018). Other research has corroborated these findings, showing that modest internet users (2 hours per day) had the highest levels of life satisfaction, while excessive users (6 hours per day) had the lowest (OECD, 2017), and were more likely to report that they would not continue with education after secondary school. Social media use was also associated with poor mental and physical health outcomes (poorer sleeping and higher body concerns). In addition, social media use can exacerbate depressive symptoms in clinically depressed populations (Rich, 2019).

A recent systematic review suggested that there was strong evidence of associations between screen time, obesity, and depressive symptoms, moderate evidence for associations with quality of life, and low evidence for associations with wellbeing. However, only one of the 13 reviews that were assessed was deemed to be high quality, suggesting more research is needed in this area (Stiglic & Viner, 2019).

A systematic review of social networks and subjective wellbeing in adolescence suggested that support programs and interventions are needed for online social networks. While offline social networks have a positive association between mood, self-esteem, and loneliness, the findings were more complicated for online social networks. Nine studies found positive associations with mood, life satisfaction, and loneliness, but 15 found negative associations between online social networks, mood, self-esteem, life-satisfaction, and body image. The mechanisms for the positive outcomes were support-seeking and receiving positive feedback, while for the negative outcomes they were high investment, passive use, receiving negative feedback, and social media ostracism. The researchers highlight that more research into offline social networks is needed (Webster et al., 2021). Finally, a review of three large datasets into adolescent social media use (using data from 355,358 adolescents) found the relationship between the effects of digital technology on wellbeing were negative but small, explaining 0.4% of the variance in adolescent wellbeing. Further, a systematic narrative review found an absence of robust causal research when evaluating the

relationship between social media use and wellbeing in CYP (Best et al., 2014).

### Connections With Staff

Pupil and teacher relationships have been a central focus of school climate and pupil wellbeing research. Studies have shown that adolescent wellbeing is predicted by student-teacher relationships and classmate support (Cotterel, 2007; OECD, 2017; Reddy et al., 2003; Suldo et al., 2009; García-Moya et al., 2019; Marquez & Main, 2020; Moore et al., 2018; Danielsen et al. 2011; Diseth & Samdal 2014; Newland et al., 2018), although pupil-teacher relationship influence on wellbeing seems to decrease with age (Bokhorst et al., 2010; Malecki & Demaray, 2003; Furman & Buhrmester, 1992), this could in part be due to a dilution effect of having more subject teachers in adolescence compared with childhood. Boys are reported to have more conflicting relationships with teachers than girls (Hughes & Im, 2016) and this may partially explain their more frequent disliking of school (Martino, 1999; Millard, 1997; Ofsted, 2009; Kessels et al., 2014; Halpern 1997). Support from school staff (teachers and other adults within the school context) is associated with higher wellbeing and lower prevalence of mental health symptoms. Interestingly and importantly, this was particularly the case where pupils reported lower levels of family support (Moore et al., 2018). This suggests that teachers and school staff may be filling the gap in support for the most vulnerable pupils who don't receive support in the home context.

Results from a meta-analysis that examined the relationship between social support and wellbeing in CYP in 246 studies found a small positive association between social support and wellbeing. Moderator analyses indicated: social support was more strongly associated with self-concept; perceived support was more strongly associated with wellbeing; and support from teaching staff and school personnel was more strongly associated with wellbeing. In addition, the association between social support and wellbeing increased with age. Data from PISA (2015) have shown that a major threat to pupils' sense of belonging at school is the perception of negative relationships with their teachers. Pupils in happier schools reported more support from their teachers, and adolescents who felt they were part of a school community were more likely to be motivated in school and perform better academically. Findings from the PISA 2015 data (OECD, 2017) suggest that teacher

training should focus more on relationship building and classroom management. Data from PISA (OECD, 2018) have shown that across 68 countries, a one-unit increase in the index of teacher support was associated with significant increases in pupil life satisfaction scores (after accounting for the school's SES profile). For adolescents, feeling respected at school and that they are supported by teachers is an essential part of their wellbeing, at school and overall (OECD, 2017; Rees, 2017). However, a systematic review of self-report instruments that assess student-teacher relationships found that more research is needed to find those teacher behaviours that make a difference to pupils' wellbeing, and that the current measures are lacking in sufficient construct specification and validity (Phillippo et al., 2017).

### Schoolwork

Performance at school is enmeshed with wellbeing for many pupils, but schools do not often acknowledge the importance of wellbeing and suggest that focusing time and resources on wellbeing will be at the detriment of academic attainment. However, research has shown this is not the case, and that improving mental health and socio-emotional skills can increase academic attainment (Bonell et al., 2014). Particularly in adolescence, young people's views about their own academic competencies and academic performance are important for their health and wellbeing (Suldo, Riley & Shaffer, 2006; Ravens-Sieberer et al., 2004), and are associated with important factors such as lower rates of bullying (Nansel et al., 2001) and higher reported life satisfaction (Suldo & Huebner, 2006). Academic self-efficacy has been shown to be a mediating influence on some areas of school life; mediation analyses revealed that the negative effects of social exclusion on wellbeing were partially mediated by stress, academic self-efficacy, and school satisfaction (Satici, 2020). The research on the impact of extreme levels of schoolwork is sparse, but there is a growing literature into academic burnout. The research evidence suggests that perceived stress of schoolwork has negative implications for psychological and physical health (Torsheim & Wold, 2001; Simetin et al., 2011), and on overall wellbeing (Ravens-Sieberer et al., 2004). Marques and Main (2020) found that schoolwork-related anxiety was one of only three factors (including bullying and perceived parental support) which was associated with wellbeing in all 33 countries across the PISA data and had the largest effect size.

Data from PISA (2018) showed that in almost every education system, girls expressed greater fear of failure than boys, and these gender differences were greater for those students who were top performing. Fear of failure was found to be positively correlated with reading score but negatively correlated with wellbeing (when controlling for SES). Other research has suggested that while teacher support and perceptions of academic demands were both predictors of pupil mental health, school demands are also a mediating factor between teacher support and conduct problems (Plenty et al., 2014). Interestingly, PISA 2015 (OECD, 2017) data show no relationship between time spent studying (inside or outside school) and wellbeing.

As wellbeing becomes an explicit educational aim, policies supporting the promotion of wellbeing in schools need to consider how particular domains and drivers within schools are themselves responsible for wellbeing. Since mental health and wellbeing literature began to gain mainstream status, it was clear that school social environment could influence children's wellbeing and that a sense of belonging to school was a protective factor against health risk behaviours (Resnick et al., 1997; Glover et al., 1998). Social and peer connection, school connection and support, and academic achievement play a part in improving wellbeing. Schools can also provide a safe environment, and additional health and nutrition for children from more deprived backgrounds (UNICEF, 2019). Moreover, school quality has traditionally been judged only on test scores and academic attainment, which is not always in line with children's satisfaction with their learning environment, or indeed their general happiness (Gibbons & Silva, 2011). As such, there are increasing calls to shift schools' focus from traditional academic measures to wellbeing indicators. The introduction of wellbeing interventions in schools highlights that there is a perceived need (be that from the school leadership team or from the voiced concerns of pupils, teachers, or caregivers) of a more holistic view of child development, either as an end in itself, or to support attainment goals.

### Leisure Time

Leisure time is becoming a more prominent feature in the wellbeing literature. Leisure time gives young people a chance to spend time doing the things they enjoy on their own and with their family and friends outside the educational setting and has been shown to be associated with wellbeing (Rees

et al., 2010; Abdallah et al., 2014). There are significant cross-cultural differences in the time available to young people for leisure activities, with those in industrialised societies having more leisure time (Rees, 2017). As we have seen (in section 1.4.2.2), spending time online is a common activity for young people, for both schoolwork and leisure time. Research has shown that while ‘screen-time’ strengthened bonds with peers, it was also associated with negative effects on wellbeing (Iannotti et al., 2009; Mathers et al., 2009; Lacy et

#### 1.4.2.4 Community

Another significant environment outside the school and family is the community. Research into early childhood development has focused widely on individual, family, and school factors, while community-level influences have been under-researched (Goldfeld et al., 2018). The research that is available highlights that disadvantage is often geographically concentrated and inter-generational. Environmental factors which could be considered are household income (also see SES, section 1.4.2.1.4), level of schooling, gentrification, housing affordability, housing stability, stigma, perceived school reputation, perceived childhood care availability, perceived crime, historical events, physical access to services, walkability, public transportation availability, traffic exposure, sense of community, and natural environments, among others (Goldfeld et al., 2018). Research in this area suggests that there are small associations (or no association) between neighbourhood factors and children’s wellbeing (Lawler et al. 2016), however, there have been some relationships found between community characteristics and wellbeing (Kim & Main, 2017; Lee & Yoo, 2015; Lawler et al., 2017; Newland et al., 2014; Newland et al., 2015; Newland et al., 2018), and for pre-schoolers, growing up in a safe neighbourhoods (with strong social ties, high-quality childcare, and green spaces) has been shown to have positive emotional and behavioural outcomes (Minh et al., 2017; Christian et al., 2015; McCormick, 2017). As children age, they spend more time outside the home in their

#### 1.4.2.5 Government

On a broader level, government policies (around care, education, equality, etc.) play a large role in determining wellbeing (albeit often indirectly). Priorities set at the international, national, and local levels have repercussions on the provision of education and priorities that affect wellbeing at the school-level. For instance, UNESCO’s “Incheon Declaration” states that quality education

al., 2012; Finne et al., 2013), as was the frequency of electronic media communications (Fergusson et al., 2015). Young children have a great deal of opportunity for free play (Hughes, 2013), and this leisure time may be a reason why rates of wellbeing in childhood are high (Argyle, 2001; Caldwell, 2005). There is a great emphasis on the benefits of volunteering in the adult literature, but this has not been explored enough in childhood and adolescence to suggest that it is a driver of wellbeing.

community, and those young people who grow up in disadvantaged neighbourhoods are more likely to experience mental health problems and engage in risky behaviour, like unprotected sex and drug use (Deutscher, 2018). An increasing body of evidence also suggests that the community environment in childhood can have outcomes in adulthood when controlling for family factors (Chetty & Hendren, 2018; Chetty, Hendren & Katz, 2016; Deutscher, 2018; Schleicher, 2019). Research with young people has indicated that they believe high levels of unsafety and insecurity in their neighbourhood, along with pollution, lack of green space, and poor sanitation, to have a negative impact on their wellbeing (Christensen & O’Brien, 2003; Bartlett, 2002; Nordström, 2010; Ergler et al., 2017). Recently, there has been interest in the effects of spending time in nature. A systematic review of the mental health benefits of interactions with nature in childhood and adolescence has found that there were significant positive outcomes in around half of studies (outcomes measured were: overall mental health, self-esteem, stress, resilience, depression and health-related quality of life). While this study is not focused directly on wellbeing, it suggests that further research is needed into why some interactions may be beneficial and some are not, in addition to exploring specific benefits for wellbeing (Tillman et al., 2018).

“develops the skills, values and attitudes that enable citizens to lead healthy and fulfilled lives, make informed decisions, and respond to local and global challenges” (UNESCO, 2016, pp. 6–7). Such declarations set the agenda for what governments and education systems prioritise around the globe. Recognition of government’s role in implementing successful wellbeing programs in schools has grown

in recent years. A small selection of prominent government frameworks which focus on child wellbeing are given below. However these are not representative internationally and for further details we also point the reader towards several review articles of child wellbeing policies in different regions (e.g., East and South East Asia: Tonelli, Drobnič, & Huinink, 2021; Europe: Alemán-Díaz et al., 2018; International: Bradshaw, 2014; least-developed countries and middle-income countries: Nicklett & Perron, 2009).

It is critical that children’s rights are protected and promoted by governments. Children’s awareness of these rights, and the perception that they are respected by adults is positively associated with their wellbeing (Casas et al., 2018). It is therefore critical that children’s wellbeing is recognised by governments in its own right, rather than thinking that what is good for adults’ wellbeing also benefits

children; research has shown little correlation between average national child wellbeing and adult wellbeing (and gross national income; Rees, 2017). National-level factors rarely explain differences in the mean levels of wellbeing of young people, but family, school, and community (which are affected by government policies) do (Lee & Yoo, 2015; Bradshaw & Rees, 2017). Research has shown that young people who live in countries with more generous pre-school education policies report greater wellbeing (Moreno et al., 2017). The influence of the environment (including community-level factors) varies from country to country, but even controlling for these country-specific environmental factors, home, school, and community are still significant predictors of wellbeing for young people (Lee & Yoo, 2015; Bradshaw & Rees, 2017).

**Example Government Policy Wellbeing Frameworks**

<p><i>Ireland</i></p>	<p>Wellbeing Policy Statement and Framework for Practice, Ireland (Government of Ireland, 2019).</p> <p>This policy statement highlights the importance of government for the implementation and success of wellbeing in schools. In accordance, the policy sets out 7 “high-level” actions (listed below), and their attendant sub-actions.</p> <ol style="list-style-type: none"> <li>1. Strengthen and align current structures within the Department and between the Department and other relevant Departments to ensure the coordinated implementation of this Wellbeing Policy Statement and Framework for Practice.</li> <li>2. Plan and provide for the national roll-out of a professional development process to facilitate all schools and centres for education to engage with and embed a Self-Evaluation Wellbeing Promotion Process which builds professional capacity and collaborative cultures, from 2018–2023.</li> <li>3. Provide for an aligned, comprehensive, and easily accessible program of support for all schools and centres for education to address school-identified wellbeing promotion needs.</li> <li>4. Consider how the system is meeting current and future teachers’ learning needs relating to wellbeing promotion.</li> <li>5. Develop a research-based framework for the evaluation of wellbeing promotion in schools.</li> <li>6. Improve use of supports for children and young people at key points of transition within and between education settings.</li> </ol> <p>Promote the wellbeing of school and centre for education personnel.</p>
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<p><i>Wales</i></p>	<p>Thinking positively: Emotional health and wellbeing in schools and early years settings (Welsh Assembly Government, 2010).</p> <p>Similarly, the Welsh government sets out a list of eleven criteria for promoting wellbeing and mental health in schools. These criteria indicate recognition of the multiple layers/factors (including governance, policy, strategy, leadership, etc.) that can impact wellbeing in schools.</p> <p>These criteria are:</p> <ol style="list-style-type: none"> <li>1. Appropriate Policies &amp; Strategies in place: <ul style="list-style-type: none"> <li>- Anti-Bullying Policy and Strategy.</li> <li>- Positive Behaviour Management Policy.</li> <li>- Appropriate strategies to address; multi-cultural, gender, sexual orientation, sexual exploitation, special needs, and health issues which avoid stereotyping and discrimination.</li> </ul> </li> <li>2. Commitment to whole staff training on mental and emotional health and wellbeing related issues.</li> <li>3. Engagement with, and response to, specific local/national initiatives, and environmental and social issues.</li> <li>4. Mental and emotional health and wellbeing covered by Foundation Phase, National Curriculum and Personal and Social Education.</li> <li>5. Out of school hours learning incorporate activities which are inclusive and promote increased self-esteem and wellbeing.</li> <li>6. Pupil participation.</li> <li>7. Staff participation.</li> <li>8. School environment, ethos, and the informal curriculum.</li> <li>9. Involvement of families and community.</li> <li>10. Involvement and collaboration with outside statutory and voluntary agencies and individuals.</li> </ol> <p>The development of a health promoting workplace which recognises the importance of support for mental and emotional health and wellbeing.</p>
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<p><i>Australia</i></p>	<p>The Wellbeing Framework for Schools in New South Wales (New South Wales Government, 2015)</p> <p>This framework contextualises wellbeing to individual students, school settings and local school communities.</p> <p>The framework is:</p> <ol style="list-style-type: none"> <li>1. <b>Connect:</b> Our students will be actively connected to their learning, have positive and respectful relationships and experience a sense of belonging to their school and community.</li> <li>2. <b>Succeed:</b> Our students will be respected, valued, encouraged, supported and empowered to succeed.</li> <li>3. <b>Thrive:</b> Our students will grow and flourish, do well and prosper.</li> <li>4. <b>Enabling School Environment:</b> The school environment is pivotal to the growth and development of our most important assets—our children and young people. Our schools strive for excellence in teaching and learning, connect on many levels, and build trusting and respectful relationships for students to succeed.</li> </ol> <p>Elements include:</p> <ol style="list-style-type: none"> <li>1. Teaching and learning</li> <li>2. Behaviour, discipline, and character education</li> <li>3. Learning and support</li> <li>4. Professional practice</li> <li>5. Effective leadership</li> </ol> <p>Australian Student Wellbeing Framework (Western Australia; 2021)</p> <p>Education Services Australia developed a national framework for the Commonwealth Department of Education to support all Australian schools to promote positive relationships and wellbeing of students and educators within safe, inclusive and connected learning communities.</p> <p>The framework identifies the following five elements, which constitute a systemic whole-of-school approach:</p> <ol style="list-style-type: none"> <li>1. Leadership: visible leadership to inspire positive school communities</li> <li>2. Inclusion: inclusive and connected school culture</li> <li>3. Student voice: authentic student participation</li> <li>4. Partnerships: effective family and community partnerships</li> <li>5. Support: wellbeing and support for positive behaviour</li> </ol>
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<p><i>New Zealand</i></p>	<p>Child and Youth Wellbeing Strategy (New Zealand Government, 2019)</p> <p>The government launched New Zealand's first Child and Youth Wellbeing Strategy in 2019.</p> <p>The Strategy priorities are:</p> <ol style="list-style-type: none"> <li>1. Reduce child poverty and mitigate the impacts of poverty and socio-economic disadvantage.</li> <li>2. Better support those children and young people of interest to Oranga Tamariki and address family and sexual violence.</li> <li>3. Better support children and young people with greater needs, with an initial focus on learning support and mental wellbeing.</li> </ol> <p>For children and young people's learning and developing section:</p> <p>This means:</p> <ol style="list-style-type: none"> <li>1. They are positively engaged with, and progressing and achieving in education.</li> <li>2. They develop the social, emotional, and communication skills they need as they progress through life.</li> <li>3. They have the knowledge, skills, and encouragement to achieve their potential and enable choices around further education, volunteering, employment, and entrepreneurship.</li> <li>4. They can successfully navigate life's transitions.</li> </ol> <p>Indicators:</p> <ol style="list-style-type: none"> <li>1. Early learning participation</li> <li>2. Regular school attendance</li> <li>3. Literacy, numeracy and science skills</li> <li>4. Social skills</li> <li>5. Self-management skills</li> <li>6. Youth in employment, education or training</li> </ol> <p>Actions to improve the quality of the education system:</p> <ol style="list-style-type: none"> <li>1. Develop a statement of National Education and Learning Priorities</li> <li>2. Address learners' needs by improving data quality, availability, timeliness, and capability</li> <li>3. Response to review of home-based early childhood education</li> <li>4. Reform of vocational education</li> </ol> <p>Actions to increase equity of educational outcomes:</p> <ol style="list-style-type: none"> <li>1. Equity Index to provide more equitable resourcing to schools and kura</li> <li>2. Improve learning support: Learning Support Action Plan</li> <li>3. Improve and accelerate education outcomes for Pacific learners</li> <li>4. Fees-Free Tertiary Education and training</li> </ol> <p>Actions to support life transitions:</p> <ol style="list-style-type: none"> <li>1. New service to support transition out of care or youth justice custody</li> </ol> <p>Programs for young people not in education, employment or training</p>
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<p><i>Finland</i></p>	<p>According to the Finland Ministry of Education and Culture (2021) pupil welfare is the responsibility of all those working in school and in student welfare services (school nurse, school doctor, school counsellor, school psychologist) and is implemented in cooperation with families. Student welfare refers to the promotion and maintenance of good learning, good mental and physical health, and good social wellbeing of students.</p> <p>It includes:</p> <ol style="list-style-type: none"> <li>1. Student welfare in accordance with the curriculum approved by the provider of education and student welfare services, which is part of the school health care referred to in the Primary Health Care Act (school health nurses and doctors).</li> <li>2. Support for upbringing referred to in the Child Welfare Act (school social workers and school psychologists).</li> </ol> <p>In general and vocational upper secondary education, the education provider shall ensure that students are given information about health and social services and that they are guided to seek these services.</p> <p>Content areas include:</p> <ol style="list-style-type: none"> <li>1. Activities to promote health, well-being, security, social responsibility and interaction in the school community.</li> <li>2. General pupil welfare support, guidance and counselling in schooling, and in support of the child's or young person's physical, psychological, and social development.</li> <li>3. Cooperation of pupil welfare personnel with families, school, pupil welfare experts and other experts, and local support networks.</li> <li>4. Measures and division of labour and responsibility aimed at the prevention, observation or care of the following problem and crisis situations: monitoring of absences; bullying, violence, and harassment; mental health issues; smoking and the use of intoxicants; and various accidents, misfortunes, and deaths.</li> <li>5. Implementation of general safety objectives for transport to and from school.</li> <li>6. Objectives for health and nutrition education, and observing proper conduct in relation to eating meals in school.</li> <li>7. Curricular activities to promote pupils' mental health.</li> </ol> <p>Additionally, The Ministry of Social Affairs and Health in Finland's Mental Health Strategy 2020–2022 has five focus areas, including mental health for children and young people. This states:</p> <p>Good mental health in children and young people is supported when society:</p> <ol style="list-style-type: none"> <li>1. Creates secure conditions for family-life and in other formative environments also during societal change.</li> <li>2. Ensures that each child has equal opportunities for self-esteem, mental health skills, learning and feelings of achievements.</li> <li>3. Gives each child equal opportunities for engaging in safe recreational activities which promotes their development.</li> <li>4. Safeguards the rights of vulnerable children and young people and those in challenging life circumstances.</li> <li>5. Reduces childhood poverty in families.</li> <li>6. Reduces social exclusion of children and young people.</li> </ol>
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### 1.4.3 New Findings from PISA (2018)

To further explore the drivers of wellbeing, we ran a series of linear regression models using data from the PISA 2018 questionnaire with 97,000+ pupils aged 15-16. This sample includes students from those countries that collected data in all the domains of interest: Bulgaria, Georgia, Hong-Kong, Ireland, Mexico, Panama, Serbia, Spain, and the United Arab Emirates (UAE). The regressions included the PISA variables which were relevant to the drivers discussed in this literature review and the dependent variables used were 'school life satisfaction' and 'overall life satisfaction' (analysed independently). Some variables of interest could not be analysed because data were not collected in most of the countries analysed or levels of missing data were too high. These analyses were only intended as light-touch explorations of the areas of interest found in this scoping report and did not form part of the rationale for the wellbeing framework presented in part 2 (below).

For each of the dependent variables (school life satisfaction and overall life satisfaction), four different models were estimated. Although these models do not directly map onto all the research findings from the literature review in all cases (and only explore one age group), they do support the majority of the findings in this report. Model 1 includes basic sociodemographic data only (i.e., a standardised index of socio-economic status and gender). Model 2 includes sociodemographic data and satisfaction with nine aspects of life in the areas of self, school, home, and neighbourhood, which are assessed using 4-point satisfaction scales, with higher scores indicating higher satisfaction. Model 3 builds on this by adding a series of psychological and wellbeing factors, including standardised scales of sense of belonging to school, feeling emotionally supported by parents in relation to school, motivation to master tasks, fear of failure, competitiveness, feeling supported by teachers, resilience and a 4-point scale indicating agreement with the idea of fixed intelligence, with higher scores indicating higher level of agreement. Finally, model 4 includes all the elements of the previous models plus some school level variables – i.e., the student-teacher ratio in the school and standardised scales of the school principal's view on teachers' behaviour hindering teaching, and the shortage in material and human resources available in the school (for more variable details, see Table 1 below). Each of these 4 models was run independently for both overall life satisfaction (see Table 2 below) and school life

satisfaction (see Table 3 below) as dependent variables. This analysis accounts for PISA's complex design. In the analysis of PISA data, sampling and non-response considerations must be considered as, for example, some schools and groups of students may be over-sampled for some reasons (i.e., they may be more likely to be considered for participation). To account for this and avoid biased estimates, in these analyses we used the final student weights available in PISA (OECD 2009, 2018; Jerrim et al. 2017).

The standardised weighted regression models for overall life satisfaction suggest that the variables explain an important part of the variation in life satisfaction, particularly models 2, 3, and 4, which explain between 23-30% of the variance in overall life satisfaction. Notably, large parts of the variance are explained by variables which flagged as important in the scoping literature review (above) and thus feature in the wellbeing framework (below): gender; SES; satisfaction with parents, self-image, learning at school (significant in two out of three models), friends, neighbourhood, and time-use; belonging; bullying; resilience; fear of failure; emotional support; work mastery; teacher support; growth mindset; student-teacher ratio; shortage of school material resources; and shortage of staff resources. The same models for school life satisfaction suggest that the variables explain between 57-60% of the variance, with similar variables reaching significance: gender; SES, satisfaction with parents, teachers, health (in one of three models), self-image, learning at school (significant in two out of three models), friends, neighbourhood, things-you-have (in one of three models), and time-use; belonging; bullying; resilience; fear of failure; emotional support; teacher support; and student-teacher ratio (in one of three models).

Interestingly there were some small differences between the extent to which some variables predict overall satisfaction with life and satisfaction with school life. Satisfaction with teachers is a significant predictor of school life satisfaction but not overall life satisfaction. Satisfaction with health and things-you-have are each significant in model 2 for school life satisfaction but not in any of the other models, or in any models predicting overall life satisfaction. Some of the school variables such as staff and material shortages are significant predictors of overall life satisfaction but not of school life satisfaction – and these variables may be

more indicative of the demographics of the school area rather than have much of an impact on satisfaction with school life for pupils. Interestingly, growth mindset (in the PISA data – believing intelligence is not fixed) was a predictor of overall life satisfaction, but not school life satisfaction, and how much the individual enjoys competition was not a predictor of either model. However, in the case of competition, it may be the case that there are different types of competition, and some may be predictive of wellbeing while others are not. Finally, puzzlingly, satisfaction with friends was a significant negative predictor of overall life satisfaction, and a positive predictor of school life satisfaction. Naturally, it would be expected that the more satisfied a person is with the friends they have, the more satisfied they are at school, but the finding that the less satisfied an individual is with their friends, the more satisfied they are with their overall life, is counterintuitive. A bivariate analysis of satisfaction with friends (with overall life satisfaction) revealed a positive correlation. Therefore, the negative correlations found in models 2, 3, and 4, may be due to collinearity or multicollinearity (and there is some evidence of this when further exploratory analyses are conducted). It is worth highlighting here that none of these findings show a causal relationship and are likely influenced by confounding variables. Overall, these findings demonstrate some small differences exist between overall life satisfaction and school life satisfaction, but the two are fairly similar in terms of drivers, and the findings are largely in agreement with the scoping literature review (above).

Table 1: PISA Variables included in Regression Models

PISA 2018 Item	Data Label	Question	Values
SES	ESCS	PISA composite score (see: <a href="https://www.oecd.org/pisa/data/pisa2018technicalreport/PISA2018_Technical-Report-Chapter-16-Background-Questionnaires.pdf">https://www.oecd.org/pisa/data/pisa2018technicalreport/PISA2018_Technical-Report-Chapter-16-Background-Questionnaires.pdf</a> )	A higher score indicates higher SES
ST004D01T	female	Are you female or male? (Please select one response.)	ST004Q01TA: 01: Female; 02: Male
WB155Q01HA	sat_health	How satisfied are you with each of the following? Your health	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q02HA	sat_selfimage	How satisfied are you with each of the following? The way that you look	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q03HA	sat_learnschl	How satisfied are you with each of the following? What you learn at school	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q04HA	sat_friends	How satisfied are you with each of the following? The friends you have	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q05HA	sat_neighbourhood	How satisfied are you with each of the following? The neighbourhood you live in	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q06HA	sat_thingsuhave	How satisfied are you with each of the following? All the things you have	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q07HA	sat_timeuse	How satisfied are you with each of the following? How you use your time	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
WB155Q08HA	sat_parents	How satisfied are you with each of the following? Your relationship with your parents/guardians	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied

WB155Q09HA	sat_teachers	How satisfied are you with each of the following? Your relationship with your teachers	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
ST034	BELONG	Thinking about your school: to what extent do you agree with the following statements? ST034Q01TA: I feel like an outsider (or left out of things) at school; ST034Q02TA: I make friends easily at school; ST034Q03TA: I feel like I belong at school; ST034Q04TA: I feel awkward and out of place in my school; ST034Q05TA: Other students seem to like me; ST034Q06TA: I feel lonely at school)	01: Strongly agree; 02: Agree; 03: Disagree; 04: Strongly disagree
ST123	EMOSUPS	Thinking about <this academic year>: to what extent do you agree or disagree with the following statements? ST123Q02NA: My parents support my educational efforts and achievements; ST123Q03NA: My parents support me when I am facing difficulties at school; ST123Q04NA: My parents encourage me to be confident	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree
ST038	BEINGBULLIED	During the past 12 months, how often have you had the following experiences in school? (Some experiences can also happen in social media). ST038Q03NA: Other students left me out of things on purpose; ST038Q04NA: Other students made fun of me; ST038Q05NA: I was threatened by other students; ST038Q06NA: Other students took away or destroyed things that belonged to me; ST038Q07NA: I got hit or pushed around by other students; ST038Q08NA: Other students spread nasty rumours about me)	01: Never or almost never; 02: A few times a year; 03: A few times a month; 04: Once a week or more
ST182	WORKMAST	How much do you agree with the following statements about yourself? ST182Q03HA: I find satisfaction in working as hard as I can; ST182Q04HA: Once I start a task, I persist until it is finished; ST182Q05HA: Part of the enjoyment I get from doing things is when I improve on my past performance; ST182Q06HA: If I am not good at something, I would rather keep struggling to master it than move on to something I may be good at)	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree
ST183	GFOFAIL	How much do you agree with the following statements? ST183Q01HA: When I am failing, I worry about what others think of me; ST183Q02HA: When I am failing, I am afraid that I might not have enough talent; ST183Q03HA: When I am failing, this makes me doubt my plans for the future	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree

ST181	COMPETE	How much do you agree with the following statements about yourself? ST181Q02HA: I enjoy working in situations involving competition with others; ST181Q03HA: It is important for me to perform better than other people on a task; ST181Q04HA: I try harder when I'm in competition with other people	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree
ST100	TEACHSUP	How often do these things happen in your <test language lessons>? ST100Q01TA: The teacher shows an interest in every student's learning; ST100Q02TA: The teacher gives extra help when students need it; ST100Q03TA: The teacher helps students with their learning; ST100Q04TA: The teacher continues teaching until the students understand)	01: Every lesson; 02: Most lessons; 03: Some lessons; 04: Never or hardly ever
ST184	believe_intell_fixed	How much do you agree with the following statement? ST184Q01HA: Your intelligence is something about you that you can't change very much	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree
ST188	RESILIENCE	How much do you agree with the following statements? ST188Q01HA: I usually manage one way or another; ST188Q02HA: I feel proud that I have accomplished things; ST188Q03HA: I feel that I can handle many things at a time; ST188Q06HA: My belief in myself gets me through hard times; ST188Q07HA: When I'm in a difficult situation, I can usually find my way out of it	01: Strongly disagree; 02: Disagree; 03: Agree; 04: Strongly agree
SC002 & TOTAT	STRATIO	[item was obtained by dividing the number of enrolled students (SC002) by the total number of teachers (TOTAT)]	n/a
SC017	EDUSHORT	Is your school's capacity to provide instruction hindered by any of the following issues? A lack of teaching staff [SC017Q01NA]; Inadequate or poorly qualified teaching staff [SC017Q02NA]; A lack of assisting staff [SC017Q03NA]; Inadequate or poorly qualified assisting staff [SC017Q04NA]. EDUSHORT: SC017Q05NA, SC017Q06NA, SC017Q07NA, and SC017Q08NA	01: Not at all; 02: Very little; 03: To some extent; 04: A lot
SC017	STAFFSHORT	Is your school's capacity to provide instruction hindered by any of the following issues?: A lack of educational material (e.g. textbooks, IT equipment, library or laboratory material)[SC017Q05NA]; Inadequate or poor quality educational material (e.g. textbooks, IT equipment, library or laboratory material) [SC017Q06NA]; A lack of physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems) [SC017Q07NA]; Inadequate or poor quality physical infrastructure (e.g. building, grounds, heating/cooling, lighting and acoustic systems) [SC017Q08NA].STAFFSHORT: SC017Q01NA, SC017Q02NA,SC017Q03NA, and SC017Q04NA	01: Not at all; 02: Very little; 03: To some extent; 04: A lot

SC061	TEACHBEHA	In your school, to what extent is the learning of students hindered by the following phenomena? Teachers not meeting individual students' needs [SC061Q06TA]; Teacher absenteeism [SC061Q07TA]; Staff resisting change [SC061Q08TA]; Teachers being too strict with students [SC061Q09TA]; Teachers not being well prepared for classes [SC061Q10TA]. SC061Q06TA, SC061Q07TA, SC061Q08TA, SC061Q09TA, and SC061Q10TA	01: Not at all; 02: Very little; 03: To some extent; 04: A lot
WB155Q10HA	sat_schoollife	How satisfied are you with each of the following? Your life at school	01: Not at all satisfied; 02: Not satisfied; 03: Satisfied; 04: Totally satisfied
ST016	lifesat	Overall, how satisfied are you with your life as a whole these days? ST016Q01NA: Please move the slider to the appropriate number. Zero means you feel 'not at all satisfied' and "10" means 'completely satisfied'.	[slider bar from 0 to 10]

Table 2: Overall Life Satisfaction Weighted and Standardised Models

	Model 1			Model 2			Model 3			Model 4		
	b	Sig	SE	b	Sig	SE	b	Sig	SE	b	Sig	SE
ESCS	-0.028016		(0.0193978)	-0.694621	***	(0.17991)	-0.0927915	***	(0.0215093)	-0.0554666	**	(0.0234776)
female	-0.30074	***	(0.042078)	-0.115989	**	(0.0401091)	-0.2662967	***	(0.0475583)	-0.2691816	***	(0.0496822)
sat_health				0.081198		(0.0420911)	0.020036		(0.0452808)	0.0036761		(0.0477594)
sat_selfimage				0.619163	***	(0.0369904)	0.4868651	***	(0.0420512)	0.5024197	***	(0.0442516)
sat_learnschl				0.19122	***	(0.0407203)	0.0943067	**	(0.0413189)	0.0623762		(0.0431246)
sat_friends				-0.095117	**	(0.0476667)	-0.1873778	***	(0.0574107)	-0.1723988	***	(0.0613537)
sat_neighbourhood				0.102909	***	(0.0401472)	0.1060904	**	(0.045743)	0.09589	**	(0.0477913)
sat_thingsuhave				0.07427		(0.0530767)	0.0939585		(0.0581862)	0.0925204		(0.0615782)
sat_timeuse				0.25449	***	(0.0338669)	0.2114049	***	(0.0387239)	0.2069839	***	(0.0411004)
sat_parents				0.66056	***	(0.0386188)	0.4735671	***	(0.0464209)	0.4816251	***	(0.0488903)
sat_teachers				0.030154		(0.0412724)	-0.0192374		(0.0443754)	-0.0066699		(0.0462717)
BELONG							0.1270751	***	(0.023566)	0.1280081	***	(0.0248686)
EMOSUPS							0.2414348	***	(0.0285678)	0.2371055	***	(0.0296552)

BEINGBULLIED							-0.1489172	***	(0.0265011)	-0.1473578	***	(0.0276603)
WORKMAST							0.0599675	**	(0.028145)	0.0548304	*	(0.0291784)
GFOFAIL							-0.1749048	***	(0.0251125)	-0.1756868	***	(0.0262413)
COMPETE							-0.0389046		(0.0259002)	-0.0336163		(0.0270791)
TEACHSUP							0.1083856	***	(0.0263686)	0.0964563	***	(0.0276973)
believe_intell_fixed							0.0644282	***	(0.0246657)	0.0641972	**	(0.0259041)
RESILIENCE							0.321289	***	(0.0313793)	0.3161824	***	(0.0328766)
STRATIO										0.0084478	***	(0.0014016)
EDUSHORT										0.0721419	***	(0.0262096)
STAFFSHORT										-0.1155736	***	(0.027678)
TEACHBEHA										-0.0208756		(0.0264086)
Constant	7.918905	***	(0.288721)	1.916531	***	(0.1784469)	3.569155	***	(0.2416114)	3.418421	***	(0.2515511)
Observations	88,594			72,012			55,212			48,779		
R-squared	0.0043			0.2321			0.2885			0.2975		
Standard errors in parentheses												
*** p<0.01, ** p<0.05, * p<0.1												

Table 3: School Life Satisfaction Weighted and Standardised Models

	Model 1			Model 2			Model 3			Model 4		
	b	Sig	SE	b	Sig	SE	b	Sig	SE	b	Sig	SE
ESCS	-0.004754		(0.0060507)	-0.0145446	***	(0.0040392)	-0.0216947	***	(0.0050633)	-0.0201314	***	(0.0052604)
female	-0.030408	**	(0.0144654)	-0.0032652		(0.0091664)	-0.0289991	***	(0.0105239)	-0.0279311	**	(0.0109793)
sat_health				0.0307126	***	(0.0115444)	0.0094784		(0.0116582)	0.0110535		(0.0123145)
sat_selfimage				0.0763373	***	(0.0095008)	0.0488488	***	(0.010307)	0.0481305	***	(0.0109302)

sat_learnschl				0.1574238	***	(0.0122172)	0.1783422	***	(0.0133589)	0.1777325	***	(0.0142811)
sat_friends				0.1853387	***	(0.0127511)	0.1634269	***	(0.0145324)	0.1612341	***	(0.014083)
sat_neighbourhood				0.0339517	***	(0.010382)	0.039002	***	(0.0115802)	0.0409916	***	(0.0119055)
sat_thingsuhave				0.0259276	**	(0.0130862)	0.015452		(0.0147432)	0.0216598		(0.0154381)
sat_timeuse				0.052593	***	(0.0099724)	0.0568206	***	(0.0111482)	0.0549319	***	(0.0118633)
sat_parents				0.0613607	***	(0.010783)	0.0610059	***	(0.0122937)	0.0611616	***	(0.0128826)
sat_teachers				0.3886748	***	(0.013698)	0.3725043	***	(0.0158237)	0.3691104	***	(0.0167406)
BELONG							0.0639295	***	(0.0060044)	0.0618508	***	(0.0062591)
EMOSUPS							0.002643		(0.0064952)	0.00222		(0.006768)
BEINGBULLIED							-0.0532729	***	(0.0057554)	-0.0346186	***	(0.0059967)
WORKMAST							-0.0007879		(0.0062616)	-0.0001964		(0.0064633)
GFOFAIL							-0.0182577	***	(0.005911)	-0.0210548	***	(0.0061572)
COMPETE							0.0001038		(0.0055085)	0.0028103		(0.0056956)
TEACHSUP							-0.0060811		(0.0057564)	-0.0061395		(0.006113)
believe_intell_fixed							0.0011137		(0.0058245)	0.0016225		(0.0060778)
RESILIENCE							0.0067297		(0.0058998)	0.0070836		(0.0061529)
STRATIO										0.00069	**	(0.00032)
EDUSHORT										0.0027538		(0.0059411)
STAFFSHORT										-0.0073273		(0.0062232)
TEACHBEHA										0.004753		(0.0053187)
Constant	3.073209	***	0.0107311	-0.0636552	*	-0.0352071	0.1551017	***	(0.0424034)	0.1305203	***	(0.0448106)
Observations	79,266			75,218			55,649			49,134		
R-squared	0.0005			0.5661			0.5893			0.595		
Standard errors in parentheses												
*** p<0.01, ** p<0.05, * p<0.1												

#### 1.4.4 Key Findings and Recommendations

**Key Finding #5:** Wellbeing is multi-dimensional, affected by many variables, both within the individual themselves, and external elements that either support or pose risks to wellbeing. The complex bidirectional interplay between these variables should be considered when implementing interventions in educational settings.

**Key Finding #6:** Psychological functioning is a complicated predictor of wellbeing, and more research evidence is needed before firm conclusions can be drawn about which elements influence wellbeing. Areas that show promise are resilience, self-esteem, optimism, growth mindset, self-control, emotion regulation, and finding meaning or purpose.

**Key Finding #7:** Family interactions are very impactful on the wellbeing of young people, and for children in particular, they are the most significant driver. While schools and programs have very little control over the home environment, they can provide guidance and information to caregivers about how they can support their child's wellbeing and what factors at home influence it.

**Key Finding #8:** Schools are very influential on young people's wellbeing, especially the interactions that they have there. It is important that young people feel safe and supported in their educational environment and as children get older the influence of peers becomes more prominent. It is important for pupils to feel connected to their school and feel that it is a good fit for them.

**Key Finding #9:** Cooperative learning in the classroom is very important for wellbeing. Young people benefit from seeing themselves as part of a team and they can benefit from competition when it is team-based rather than focused on individuals.

**Key Finding #10:** School climate is important for both pupils and staff and impacts on many other drivers of wellbeing. It is particularly important for the school environment to feel safe and that the teachers respect and have a good relationship with pupils.

**Recommendation #7:** Models of wellbeing should consider the young person's whole world, including the wide variety of interactions they have with other young people and adults, and the different environments that they interact with (e.g., home, school, and community), in addition to any individual differences.

**Recommendation #8:** Socio-demographic factors are important predictors of wellbeing, accounting for 10–20% of the variance. Although schools cannot influence many of these factors (such as age, gender, ethnicity, and genetics) they can use the extant literature to understand how some populations might be disadvantaged. School stakeholders can use this knowledge to explore the wellbeing of these populations in their own educational setting and implement interventions which will decrease this disparity in wellbeing.

**Recommendation #9:** Mental ill health is an important aspect of the lives of young people, and its increasing prevalence is troubling. Although there is not a strong link between mental ill health and overall wellbeing in childhood and adolescence, the broader areas of mental health and functioning overlap heavily with wellbeing and should be included in any model of wellbeing.

**Recommendation #10:** Physical health (including the absence of disease or illness, physical activity, diet, and sleep) is crucial to wellbeing and a deficit in any area of physical health can have a significant impact. There is very robust evidence to suggest that there is a link between physical activity and wellbeing, and this is a key area that schools and programs should explore. There is less evidence for the impact of sleep and diet on wellbeing, but as these are essential elements of child development they should therefore be included in any model of wellbeing.

**Recommendation #11:** The interactions between peers at school are very important for young people's wellbeing, especially in adolescence. One key area that any wellbeing policies should focus on is building social

support and reducing instances of bullying. School stakeholders should also explore social media use in their educational setting and support young people to have positive benefits from time spent online.

**Recommendation #12:** Teacher wellbeing is also a predictor of pupil wellbeing, and the research is nearing a causal relationship. Any wellbeing policies should emphasise ways to support teacher wellbeing and include teacher training on how influential teachers are on the wellbeing of their pupils.

**Recommendation #13:** More research is needed into schoolwork, how young people spend their leisure time, and the influences of the community on young people's wellbeing. It is likely all these factors are influencers or drivers of wellbeing and should be considered by schools when they are exploring possible interventions.

**Recommendation #14:** Government wellbeing policies should be reviewed by school stakeholders to understand that most important variables at the policy level.

**Recommendation #15:** School-related anxiety is an understudied factor which is gaining importance in wellbeing research. Schools should assess school-related anxiety within their community to find out whether pupils are suffering with school-related anxiety and if there are any key areas (such as workload) which are particularly troubling to pupils.

WHOLE SCHOOL,  
UNIVERSAL,  
OR TARGETED  
INTERVENTIONS

In schools, universal wellbeing interventions address the needs of all children: this refers to interventions that are for general population groups—for instance, whole classes or all pupils within a particular age range. Whole school interventions are directed at all pupils and usually have extra elements beyond pupil training, such as staff training or changes at the school level. Targeted wellbeing interventions, on the other hand, are designed to be delivered to specific individuals or groups who have been identified to need support or treatment; for instance, due to an existing illness or risk factor (O'Connor et al., 2018).

Historically, student wellbeing approaches in schools have focused on at-risk students through the delivery of specific, targeted interventions, and curriculum content (particularly for mental health). However, over time, wellbeing has gained a more holistic meaning and focus has shifted to universal student wellbeing needs (Commissioner for Children and Young People Western Australia, 2020). Today, in the current educational landscape,

particularly in western settings, efforts are mainly directed towards wellbeing frameworks and programs being implemented at a general population level (Wright, 2014). The shift from targeted wellbeing approaches to more universal programs was indicative of broader shifts in education policy as well as advancements in the discipline of educational psychology. The rise of positive psychology as a new branch of the discipline, for instance, “reshaped the ways in which mental health is understood in educational contexts” and encouraged the idea of wellbeing-for-all (Wright, 2014). One of the other defining moments in the shift from targeted to universal wellbeing approaches in schools was the introduction of the WHO’s Health Promoting School framework in 1995, which similarly focused on a whole-school approach that promoted health and wellbeing for all (Langford et al., 2014). However, there is arguably a place for all three types of interventions, and we detail the various advantages and disadvantages of each approach in differing contexts, populations, and interventions.

### 1.5.1 Targeted Approaches

As categorised by Pössel, Smith, and Alexander (2018), with respect to preventive programs for depression, targeted interventions can be further divided into indicated or selective. Indicated prevention programs are designed to target young people with clear risk factors, while selective prevention programs are aimed at certain subsets of pupils who may be known to be more vulnerable to those risk factors or to developing future problems.

Spence and Short (2007) reviewed literature on universal interventions for the prevention of depression, and suggest that in the literature there are small, but significant, short-term benefits to targeted interventions, the majority of which involve cognitive behavioural therapy (CBT), and thus targeted interventions might be better focused in the case of prevention interventions. Shucksmith et al. (2007) review the effectiveness of targeted approaches in primary school wellbeing interventions and conclude that complex interventions offer benefits but with high-cost implications.

A clear advantage of targeted programs raised by Offord (2000), and echoed by Pössel et al. (2018), is their cost-effectiveness as a relatively smaller percentage of the population is targeted. However, this is not absolute. Targeted programs, whether indicated or selective, often require a screening process and this can add to associated costs. Difficulties around screening, as well as possible stigmatisation of the subjects screened, thus serve as disadvantages of targeted approaches (Offord, 2000). Another advantage of targeted programs is that schools can target their resources at those who are most disadvantaged in terms of wellbeing; supporting the theory that we should support those with particularly low wellbeing first, and try to improve their wellbeing several points, rather than trying to improve the whole student population’s wellbeing by a small amount. Although these two approaches are not mutually exclusive, and if resources are available, then both should be actively pursued to have maximum effect.

### 1.5.2 Universal Approaches

In the context of schools, universal approaches are those that target all students either in a certain year group or in the whole school. As Wright has indicated, “frameworks and strategies that take a universal approach to promoting mental health and wellbeing have constituted the dominant educational policy response since the 1990s” (Wright, 2014, p.208). These universal, upstream interventions have the benefit that those with a low risk profile, who might go on to develop symptoms later, are included in interventions that they might not be if the school only used targeted approaches.

The need for a universal approach is also based on patterns of help-seeking behaviour. For instance, research indicates that individuals with low levels of mental health literacy are less likely to seek help, and levels of mental health literacy in children and adolescents is generally low (Ratnayake & Hyde, 2019). That is, a lack of understanding of mental health and wellbeing by adolescents has been well documented (Morgan & Jorm, 2007; Singletary et al., 2015; Ratnayake & Hyde, 2019). For instance, in an assessment by Wright et al. (2005), less than half of participants were able to identify depression and only a quarter psychosis. Younger participants aged 12–17 years were also significantly less likely

to identify both depression and psychosis compared to the older group, aged 18–24 years. Service underutilisation has also been highlighted as a problem for all children (de Anstiss et al., 2009). One of the greatest challenges to effective intervention for prevention and treatment of mental disorders is the reluctance of people to seek professional mental health care (Rickwood & Thomas, 2012). The link between mental health literacy and help-seeking behaviour as well as a low use of service utilisation shows that not all those who have low wellbeing are able to report it. The wider reach of universal interventions is thus more appropriate in such cases.

For these universal approaches to be successful, the intervention itself needs to be carefully designed to reach all children across the spectrum of functioning and be optimised for successful implementation. There are many approaches which are marketed as universal approaches that still adopt a drop-in session approach without appreciation of the wider school context. Equally, some still use approaches intended for targeted populations (such as those at risk of mental illness), which reduces the acceptability of such programs for children who do not meet those clinical or pre-clinical criteria.

### 1.5.3 Whole-school Approaches

Universal programs in the context of wellbeing in educational settings are often associated with the development of a “whole-school” approach (WSA). Adi et al. (2007) conducted a review of over thirty studies to promote mental wellbeing in primary (elementary) school children, concluding that universal approaches are most effective when support is provided for teacher training, there is a component of parental support, and they are offered to children over a prolonged period. This points to a whole-school approach: one that connects each aspect of school administration, staff, teachers, pupils, parents, and wider community, and integrates wellbeing into each part of school life. This is in line with the WHO framework for Health Promoting Schools (Langford et al., 2014), as well as with increasing literature that focuses on the evaluation of universal whole-school approaches in improving wellbeing (Spence & Shortt, 2007; Durlak et al., 2011; O’Connor et al., 2018; MacKenzie & Williams, 2018). Goldberg et al. (2019) propose three elements of whole-school approaches: curriculum, teaching and learning

(which overlaps with targeted approaches); school ethos and environment; and family and community partnerships. Hurry et al. (2021) highlight that it is of great importance for the teachers to view themselves as a driver of young people’s mental health; most teachers are very familiar with the idea that families influence mental health and wellbeing, but most are not aware of how influential they are to their pupils’ overall wellbeing.

Hurry et al. (2021) suggest that beyond the immediate desired effect on the pupils’ wellbeing, WSAs can have other positive outcomes. “Ideally, in addition to shaping school climate, [WSAs] will also perform the following functions: promote consistency between curriculum messages and school experiences outside the classroom in interactions between pupils and pupils, and between pupils and school staff; provide a structure for the selection of interventions with the best fit to the school; create an environment for sustainable intervention, which involves developing

staff and student commitment, monitoring and ongoing training; [and] support teachers to communicate, to learn and to change” (p. 13).

The effect of COVID-19 on school children has also contributed to discussions of universal wellbeing interventions. For instance, the Welsh government released a report that emphasised the need to “address the emotional and mental well-being needs of **all** children and young people, as well as school staff, as part of the whole-school community” (Education Wales, 2021; emphasis in original). The same report emphasised how whole-school approaches could be scaled up to whole-system approaches, further universalising wellbeing interventions. Although pandemics are very rare, boosting the wellbeing of the whole population of young people is seen as a preventative buffer against individual and national/global circumstances that may arise during childhood or as these individuals mature into adulthood, resulting in a mentally healthier population, and a mentally healthier future workforce.

In Australia, MindMatters is a landmark project that shifted general practice away from targeted approaches to universal whole-school interventions. It has been cited as a best practice

model for universal whole school approaches, “the bringing together of mental health promotion, prevention and early intervention reflects a tripartite best practice model” (Wright, 2014). MindMatters has also been adopted in other countries, including the USA, Germany, Switzerland, and Ireland. In the UK, embedding mental health education within the curriculum, particularly in Personal, Social, Health, and Economic Education (PSHE) and Social and Emotional Aspects of Learning (SEAL) programs, is an example of a whole-school universal policy (Brown, 2018).

Another example comes from the bullying literature: whole-school approaches are often employed in bullying interventions, of which many have proven to be successful (Ttofi & Farrington, 2011). In the evaluation of the INCLUSIVE trial, the whole-school element was shown to be more effective than the curriculum element. Research into the UK universal SEAL program has shown that while teachers’ ‘will and skill’ is an important factor in implementation, universal and whole-school interventions are more likely to involve teachers and therefore may be more successfully implemented in the longer-term (Hurry et al., 2021).

#### 1.5.4 Are Universal or Targeted Interventions More Effective?

Offord (2000) concludes that while the effects of targeted programs are bigger for the specified, individual participants, it is universal programs that can affect systems such as schools or communities, while having smaller effects on a larger number of people (Offord in Pospel et al., 2018). Thus, wellbeing for all might be preferable to increased wellbeing for those who report lower wellbeing. This idea is supported by the increased attention given to WSAs, as well as patterns of help-seeking behaviour.

At the same time, according to NICE an integrated approach is possible; using both universal and targeted interventions together could prevent negative behaviours, and subsequent costly consequences for the education, health, and social services (Bywater & Sharples, 2012). Similarly, focusing on SEL interventions, Kuosmanen et al. (2019) emphasise the WSA as an important platform that can be used to build universal approaches for certain mental health prevention tactics (such as anxiety) and targeted approaches for other (such as depression), and propose they could be used simultaneously in a multi-tiered

fashion. An essential component of both approaches is relevant and engaging teaching, and the same teaching style is deemed successful for both targeted and universal interventions. This suggests that whichever the approach, enhancing the teaching style (and/or adapting it to the target population) will improve implementation (Harrison et al., 2013).

Five reviews, looking at a wide range of interventions, suggest that whole-school interventions with multiple components, methods, and people that are driven by the whole school are more effective than interventions focusing on just a classroom or curriculum approach (Catalano et al., 2002; Wells et al., 2003). Adi et al. (2007) have suggested that there is a need for both targeted and universal interventions, but there is insufficient evidence to suggest how to balance these two approaches in different contexts. In terms of time, resources, and impact, researchers have highlighted that it is important to have universal, early, upstream, low-cost gatekeeping mechanisms to help to prevent the increasing mental health rates in adolescence, which become complicated

(and expensive) to attempt to alleviate in secondary (middle and high) school (Wassef et al., 1995).

Hurry et al. (2021) summarises that both universal and targeted interventions typically report small to moderate effects. However, these effects usually disappear after a year or two, and there is very little longitudinal research. They highlight that, across high quality meta-analyses, researchers frequently comment on the variation in effectiveness across interventions, but also of the same intervention in different settings (e.g., Fazel et al., 2014; Gaffney et al., 2019; Humphrey et al., 2018; Moltrecht et al., 2021; Weare & Nind, 2011). They also indicate that the quality of RCTs of universal interventions is low (and mainly in

primary/elementary and US samples), and the evidence is largely focused on single case studies. Further, in a systematic review of WSAs for interventions on emotional health in adolescence (Kidger et al., 2012), there was no strong evidence that they were effective (apart from in one study which was methodologically challenged). Durlak et al. (2011), in their large systematic review, found WSA were effective, but not as much as targeted approaches. Goldberg et al. (2019) reported that whole-school approaches were effective for SEL, and Weare and Nind (2011) found five out of seven reviews of whole school approaches reported they were effective (for a comprehensive, balanced, evidenced-based review of these approaches in more detail, please refer to Hurry et al., 2021).

### 1.5.5 Key Findings

**Key Finding #11:** The literature is clear that there is a place for both WSAs and targeted interventions and that, if implemented properly (see section 1.6.3 'The Importance of Proper Implementation', below), WSAs can be effective. However targeted interventions are still needed, and are effective, for those young people who are struggling. It is again clear from the literature that there is no one-size-fits-all approach.



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# WELLBEING INTERVENTIONS

In this section we review some of the available school-based wellbeing interventions. It is worth noting that many of these interventions may be centrally focused on mental health, SEL, or other drivers of wellbeing, rather than wellbeing as the main outcome. As Weare and Nind (2011) highlight in their comprehensive review of mental health interventions, “Most interventions only worked sometimes, some did not work at all, and some were considerably more effective than average in some circumstances. There is clearly more to being effective than simply carrying out an intervention, even if well designed”, the authors allude to the complex issue of successful implementation which will also be discussed (section 1.6.3). One central consideration of this review is the effectiveness of these interventions on their desired outcomes, however many of the interventions used in schools have not been explored as part of rigorous scientific research, therefore we cannot truly assess their effectiveness. Fewer studies still, examine health economics and report the cost-effectiveness of the programs, making it challenging when comparing which programs to implement. It is worth highlighting, again, that there is no one-size-fits-all solution and within each

setting it will be crucial to take baseline assessments (see section 1.7 on measurement) to determine which intervention is most fit for purpose (see section 1.6.3 for information on successful implementation). Encouragingly, a review of reviews of mental health and SEL interventions by Weare and Nind (2011) found very few examples of adverse effects, so stakeholders should be cautious but not paralysed by the prospect of adverse effects. The authors also state that the evidence of overall impact of these programs is small to moderate (and stronger in the short term than the long term), however, they also highlight that, although this is small in statistical terms, it translates into quite an impactful transformation in the real world, citing Durlak et al.’s (2011) finding that across the 207 interventions they reviewed there was an average improvement of 11% in achievement tests, 25% in SEL skills, and a 10% decrease in classroom misbehaviour, anxiety, and depression (all lasting at least 6 months). It is also of note that these findings were just the average, so some programs, if carefully selected based on empirical evidence and appropriateness-of-fit to the environment and population, could be more effective.

## 1.6.1 Pupil Wellbeing Interventions

### 1.6.1.1 Whole-school and Universal Wellbeing Interventions

#### When and How to Deliver Whole School and Universal Interventions

Research spanning the last 30 years confirms that socioemotional competencies can be taught through school-based programs (Weare & Nind, 2011; Greenberg et al., 2003; Weissberg & Greenberg, 1998; OECD, 2019; OECD, 2020). However, there are literally thousands of school-based interventions internationally which target mental health and wellbeing (under various names, such as SEL, resilience, life skills, etc.). As a result, deciding which interventions to use, in which setting, and with which populations can be challenging for school stakeholders and academics alike. The focus of these interventions is highly varied, with common emphases on: belonging and engagement; mentoring; social-emotional skills; cognitive skills; behavioural skills; exercise and relaxation; preventing harm from tobacco, alcohol, and drugs (Dix et al., 2020).

In the UK, Public Health England have produced several reports on health and wellbeing in schools

(Bryant, Heard & Watson, 2015; 2019; 2021). One of their key focuses is that Whole School Approaches (WSAs) should extend beyond the learning in the classroom and include wider aspects such as school culture, teaching and learning, partnerships with stakeholders, and providing visible senior leadership for emotional health and wellbeing. In their report on WSAs (PHE, 2021, p.7), they have identified eight key principles to promote health and wellbeing within schools:

- “Leadership and management that supports and champions efforts to promote emotional health and wellbeing,
- An ethos and environment that promotes respect and values diversity,
- Curriculum teaching and learning to promote resilience and support social and emotional learning,
- Student voice to enable students to influence decisions,
- Staff development to support their own wellbeing and that of students,

- Identifying need and monitoring the impact of interventions,
- Working with parents/carers,
- Targeted support and appropriate referral.”

This multi-targeted approach is supported by findings in the academic literature. There are many high-quality reviews into SEL interventions, usually focused on research conducted on schools in North America. Reviews have found that interventions which include some of the child’s environments beyond the classroom (school, family, or community) are more helpful than those that only focus directly on the child’s behaviour (Browne et al., 2004; Catalano et al. 2002; Diekstra, 2008; Durlak & Weissberg, 2007; Greenberg et al., 2001). In particular, the involvement of parents has been highlighted by reviewers as a way of increasing effectiveness for interventions (Adi et al., 2007; Blank et al., 2009; Catalano et al., 2002; Durlak et al., 2007; Greenberg et al., 2001; Waddell et al., 2007; Wells et al., 2003), particularly by reinforcing messages at home (Shucksmith et al., 2007), and sometimes by changing the behaviour in families and communities (Durlak & Weissberg, 2007).

In a much-cited systematic review by Weare and Nind (2011), the authors highlight that schools are one of the easiest places to conduct universal interventions in childhood and adolescence, because of the near universal access to young people in this setting. The results of a small systematic review by Fenwick-Smith et al. (2018) of resilience-enhancing, universal primary-school (elementary) interventions into mental health and wellbeing highlighted that those interventions delivered by ‘in-house’ teachers showed the most promise, and length of program did not affect the outcome. However, only 7 studies met the inclusion criteria, so the results should be applied with caution. Other research has found that programs delivered initially by experts can be effective (see below).

#### When to Intervene and For How Long

As Weare and Nind (2011) highlight, “The balance of evidence pointed to starting early, with well-designed and implemented interventions and then continuing with older students” (p. 62). They indicate that very few of the intervention reviews suggest that brief single interventions (under 8–10 weeks) have any efficacious merit, and that those which were most effective lasted at least 9 months to a year. Investment in early years has also proven to be beneficial for children’s wellbeing elsewhere.

In Australia, policies like the National Early Childhood Development Strategy (Council of Australian Governments, 2009), the National Early Years Learning Framework (Council of Australian Governments, 2009), and the Funding the Australian Early Development Index (AEDI, 2009), emphasise the use of evidence-based practices to monitor, assess, and improve wellbeing at early stages for a better return on investment in terms of educational attainment, socioemotional development, and wellbeing (Moore, 2014). Even before school age, early education programs have been associated with increased cognitive skills, increased academic achievement, and better school readiness, which in turn improves wellbeing. School readiness can be supported by strengthening the home learning environment, as well as increased preschool education programs (Michalos, 2007).

Dix et al. (2020) found that programs delivered to adolescents in secondary schools seemed to have larger effects than in primary schools. The most effective size of delivery for academic outcomes was universal intervention in groups of 11–20, whereas for wellbeing outcomes it was small groups of less than 11 participants. Notably, they found that shorter programs (up to one term) had larger impact than longer programs. This may be due to the intense dosage or particular focus of shorter programs. It should also be highlighted that most studies are not powered or last long enough to consider to what extent these interventions in early childhood cascade developmentally, buffering against negative outcomes in later life.

#### How to Integrate WSAs and Universal Interventions

##### *Frequency and Placement of Delivery*

Wellbeing interventions can be integrated into different parts of the school curriculum and with different frequencies of delivery. For instance, in a review by O’Reilly et al. (2018), yoga lessons aimed at mindfulness and meditation that were delivered in schools 12 times per week across all year groups were integrated into Physical Education curriculums. The same review discusses SEAL (Humphrey et al., 2013), a whole-school social and emotional intervention in UK schools, delivered once per term over 5 terms, and made a part of Physical Health, Social, and Economic Education (PSHE) lessons (O’Reilly et al., 2018). Another physical activity intervention is a randomised multi-component, school-based intervention discussed by Smedegaard et al. (2016) in Denmark, which emphasises the importance of physical activity on

self-esteem and wellbeing. For physical activity interventions, Lubans et al. (2016) found that for adolescent boys in particular, the physical health benefits and the increase in wellbeing have been influenced (mediated) through the mechanism of increasing autonomy support, muscular fitness, and reducing screen time.

### **Conflicting Findings**

However, there are challenges when integrating WSAs, for example a review by Belfi et al. (2012) demonstrated the complexity of wellbeing interventions in schools. In their review of class composition by gender and ability, they found that ability grouping was advantageous for the wellbeing of higher achieving (or what they term 'strong') pupils but detrimental for lower achieving (or 'weak') pupils, but the reverse was true for academic self-concept. This finding makes it difficult for schools to choose how to group pupils, do they focus on the lower or higher ability pupils and on wellbeing or attainment? Looking at other research further complicates the decision. Marquez (2020) found that attending a school which practices ability grouping rarely influences gender differences in wellbeing (across 33 countries; the only exception was in France, where attending a school that had ability grouping within classes was significantly positively correlated with female students' wellbeing). Further, the study highlighted that single-sex classes were advantageous for the wellbeing of girls (whether in a single-sex or coeducational setting), but the findings were inconclusive for boys. These studies highlight the difference in results that can be found across studies, and demonstrates the challenges that school stakeholders face when making decisions about wellbeing. These findings also reinforce the necessity of continuous measurement and monitoring of any interventions within each educational setting, so that any disparate effects like these can be identified and modifications can be made, where necessary. The most logical thing for stakeholder to do (with expert guidance) is take measurements within their own school so that they can assess the outcomes of any wellbeing interventions (see section 1.7).

#### **1.6.1.2 Which WSAs and Universal Interventions Work?**

The landscape of available SEL, mental health, and wellbeing interventions in schools is vast, with varying degrees of demonstrable efficacy. New supportive strategies have arisen following the pandemic, but their efficacy at reducing mental health burden (e.g., stress, anxiety, depression),

### **Who Should Deliver Interventions?**

Dix et al. (2020) suggested that for wellbeing outcomes, the (marginally) most effective mode of delivery was via a classroom teacher who had been trained in a specific program rather than an external professional coming into the school to deliver the course. However, this had no impact on academic attainment. This research does not compare a third option of the intervention being started by a professional and then adopted and led by in-house staff, which has shown to be efficacious (see above). Weare and Nind (2011) suggest that those programs which integrated their content into the general classroom curriculum (rather than focused on them in isolation) were most effective, and this was also true for universal approaches that included targeted approaches. The most effective interventions started early and continued long-term, including booster sessions to combat the recurrent problem of diminution over time, and were taken over by routine school staff (rather than external experts). Their findings also support a whole-school approach including changes to school ethos, teacher education, parent liaison, parenting education, community involvement, and coordinated work with outside agencies. However, the authors indicate that accurate implementation, fidelity, and slow phasing-in of any changes to measure the outcomes are important to produce the desired effects (for more information on what works for implementation, see section 1.6.3).

In the UK, the NHS' Improving Access to Psychological Therapies (IAPT) program found that in some cases, the type of therapy is less important than the relationship between the therapist and the patient. In the school context, this suggests there might be value in focusing on adequate training of teachers, and/or the school psychologist or counsellor, and highlights the importance of targeted support. Indeed, research suggests that where school psychologists are available, they should be centrally involved in delivering SEL and be effective advocates and practitioners of this work (Ross, Powell & Elias, 2002).

and increasing wellbeing, has not been assessed (Marques de Miranda et al., 2020). General evidence from a series of reviews (literature reviews, meta-analyses, and systematic reviews) on wellbeing interventions, mainly focusing on mental health, is presented below. This is amongst the

most academically rigorous literature available, but does have some challenges, which are also described below.

## Reviews

### *Weare & Nind (2011)*

A review by Weare and Nind (2011) found that there were small to moderate impacts of universal interventions on positive mental health (which could also be termed as wellbeing), mental health problems and disorders, violence and bullying, and pro-social behaviour. However, these effects are more meaningful when examined in real-world, rather than purely statistical, terms. Moreover, the impact of these interventions on social and emotional skills was moderate to strong. When interventions were targeted at higher risk children the effect was dramatically higher, suggesting that there is great value in targeting those children who are most in need. The authors highlight that, although these findings are encouraging, they cannot be relied upon; differing environments, populations, and implementation strategies will have an impact on the success of the program. They also offer support for the positive relationship between mental health and academic outcomes (learning and achievement).

### *García-Carrión et al. (2019)*

Another systematic review of eleven mental health interventions found that they had a positive effect on children's and adolescents' emotional wellbeing and decreased symptoms of mental disorder. Most relevant across these interventions was interactions with different adults (parents, teachers, community members, professionals). The authors did not, however, include effect sizes of the interventions, and only described the findings; this makes it difficult to assess which interventions were most impactful on which outcomes, and what aspects of these interventions had the biggest impact (García-Carrión et al., 2019).

### *Langford et al. (2014)*

A further systematic review of clustered RCTs (using the WHO's Health Promoting School framework) of the implementation of school interventions aiming to improve the health of young people (aged 4–18), found that across 67 trials (across 1345 schools and 98 districts) very few of the interventions focused on mental health, and those that did were not effective (Langford et al., 2014).

### *Dix et al. (2020)*

A review by Dix et al. (2020) on school-based wellbeing programs suggested that they had small to moderate effects on student academic achievement and wellbeing-related measures. The review highlighted that student belonging and engagement had the greatest effects on academic outcomes, while programs that focused on social-emotional skills were more effective for promoting student wellbeing. The best support for students from disadvantaged backgrounds was found to be a combination of universal WSAs and targeted approaches, though the findings were inconclusive about the best sort of support for children with special needs.

### *Public Health England (Robson, 2019)*

Public Health England's review on 'universal approaches to improving children and young people's mental health and wellbeing' (2019) found no promising wellbeing interventions from 19 systematic reviews that met their evidence-based research criteria. However, they did flag some promising interventions for potential drivers of wellbeing: behavioural difficulties ('Promoting Alternative Thinking Strategies' [PATHS; e.g., Humphries et al., 2018] and 'Triple P Online' [e.g., MacDonnell & Prinz, 2017] for primary school pupils, but no effective program for adolescents); promoting resilience and capabilities ('Zippie's Friends' [e.g., Fenwick-Smith et al., 2018; Dray et al., 2017] and 'Triple P Online' for primary school children, and 'Substance Abuse Risk Reduction' for adolescents [e.g., MacDonnell & Prinz, 2017]); preventing emotional difficulties ('FRIENDS for Life' [e.g., Dray et al., 2017] for both younger and older children; 'Penn Resiliency Programme' [e.g., Bastounis et al., 2016], the 'Resourceful Adolescents Programme' [e.g., Mackenzie & Williams, 2018], and 'LARS&LISA' for adolescents [e.g. Dray et al., 2017]; and 'FRIENDS for Children' [e.g., Corrieri et al., 2014] for children and adolescents; see Robson, 2019, for further details).

### *National Institute for Health and Care Excellence (NICE; Blank et al., 2009)*

A NICE systematic review of international universal interventions (which explored interventions that are applicable to English schools) identified 6 promising approaches to promoting pro-social behaviour and skills (Stevahn et al., 1996; Stevahn et al., 2002; Smith et al., 2002; Shochet et al., 2001; Barrett et al., 2006; Quayle et al., 2001), which had

a positive effect on reducing symptoms of depression and anxiety. The authors suggest that conflict resolution training (in the short term) and the use of peer mediators (in the long term) might be effective strategies. Authors also identified 5 good quality RCTs for preventing bullying and disruptive behaviours (Evers et al., 2007; O'Donnell et al., 1999; Flay et al., 2004; Komro et al., 2004; Baldry & Farrington, 2004). The evidence across the 7 studies they reviewed was mixed in terms of efficacy, but they did highlight that a community approach appeared to be beneficial. A separate set of studies meanwhile highlighted the potential benefits of teacher involvement in bullying programs (Botvin et al., 2006; Van Schoiack-Edstrom et al., 2002; Farrell et al., 2003; Warren et al., 2006; Barrett et al., 2006), young people as peer educators or mediators in interventions for prosocial behaviours and skills (Stevahn et al., 2002; Smith et al., 2002; Dillon & Swinbourne, 2007), and bullying programs (Orpinas et al., 1995; Menesini et al., 2003; Salmivalli, 2007; Mahdavi & Smith, 2002) may be beneficial (Blank et al., 2009; if of interest, see the full review for details of studies that were not effective).

#### ***NICE (Adi et al., 2007)***

Another NICE review of universal interventions focusing on mental wellbeing in primary (elementary) schools also suggests that the PATHS program (Humphrey et al., 2018) was effective, as was the Tri-Ministry Study (Boyle, 1999), and highlighted the long-term positive benefits of the Seattle Social Development Project (Hawkins, 2005). The authors also noted two good quality studies which used both targeted and universal interventions (Haynes, 1990; Weiss, 2003). The authors highlighted that the programs offered should consider having: a significant teacher training component; multiple sessions (PATHS has up to 60); a parenting support component; in the short term, programs delivered by psychologists that focus on stress and coping; short-term conflict resolution programs delivered by teachers; long-term programs covering social problem solving, social awareness, and emotional literacy, in which teachers reinforce the classroom curriculum and in all interactions with children (Adi et al., 2007; for further details see the full review).

#### ***Eime et al. (2013)***

A systematic review of sport interventions in childhood and adolescence found that across 30 interventions, the most common positive outcomes

were improved self-esteem, social interaction, and fewer depressive symptoms. Team sport, due to its social nature, seemed to be particularly beneficial, and the authors recommend that young people are enrolled in community sport as part of their leisure time. However, the cross-sectional nature of the studies made it difficult to determine causality (Eime et al., 2013).

#### ***Meiklejohn et al. (2012)***

A literature review of mindfulness interventions in pupils and teachers found promising evidence that it was beneficial for children, adolescents, and teachers. Personal training has been shown to improve teachers' wellbeing and self-efficacy, while pupil programs can improve emotion regulation and self-esteem, and decrease anxiety and stress (amongst other positive findings). However, the authors highlight the need for high quality research in this area, with most studies being pre- and post-studies rather than the gold standard RCTs (Meiklejohn et al., 2012), and indeed, as previously noted, a gold standard RCT has been conducted in the UK, with results to be published imminently (MYRIAD; Kuyken et al., 2017).

#### ***Hurry et al. (2021)***

As previously indicated (section 1.5.4), this insightful review of the role of schools in the mental health of children and young people is highly recommended a source of information on interventions in schools. The document includes the table below which gives a good summary of effect sizes across well-conducted studies and meta-analyses that include a standardised measure of the intervention's impact (Hurry et al., 2021, p. 16, table 5.1). Although the review focusses on mental health, the authors use the broader meaning of mental health, which is more comparable with wellbeing (rather than the more clinical application). In the review it is suggested that schools can benefit from having a policy for mental health/wellbeing, rather than stand-alone interventions. The authors also highlight that there is no one approach that will be successful across settings and populations, suggesting "what works in one place may not work in another, and that what works with one child may not work with another" (p.21), and they also emphasise the importance of each school monitoring and evaluating the interventions they employ.

Study & methodology (& study location)	Primary/secondary	Universal/targeted	Outcome	Effect size Cohen's d or Hedges g	Intervention
<b>Bonell et al., (2019)</b> RCT (UK)	secondary	universal	36 months after inception: <i>primary outcomes:</i> bullying aggression  <i>secondary outcomes</i> quality of life wellbeing mental health (strengths & difficulties questionnaire [SDQ])	-0.08 not significant  0.14 0.07 -0.14	INCLUSIVE, WSA to bullying & aggression.
<b>Caldwell et al. (2019)</b> meta-analysis	secondary secondary primary both both	universal universal universal targeted both	anxiety anxiety anxiety anxiety depression	*-0.65 **-0.15 **-0.07 not significant not significant	*mindfulness **CBT **CBT all types all types
<b>Durlak et al., (2011)</b> meta-analysis	both	universal	SEL skills attitudes positive social behaviour conduct problem emotional distress academic performance	0.57 0.23 0.24 -0.22 -0.24 0.27	meta-analysis of a wide range of SEL programmes addressing e.g. substance use, bullying & emotion regulation
<b>Ford et al., (2019)</b> RCT (UK)	primary	universal	SDQ immediately post-intervention SDQ 9 months post-intervention SDQ 21 months post-intervention	Significant (p=0.03) Not significant (p=0.85) Not significant (p=0.23)	incredible years teacher classroom management
<b>Gee et al., (2020)</b> Meta-analysis	ages 10–19	targeted	depression anxiety	-0.34 -0.49	RCTs for young people with elevated symptoms of depression or anxiety
<b>Goldberg et al. (2019)</b> meta-analysis	both	universal WSA	social & emotional adjust behavioural adjustment internalising symptoms academic achievement	0.22 0.13 -0.11 not significant	WSAs to social & emotional development
<b>Moltrecht et al. (2020)</b> meta-analysis	ages 6–24	targeted	emotional regulation decrease dysregulation	0.36 -0.46	interventions addressing emotional regulation
<b>Wang et al., (2020)</b> meta-analysis	both	universal	social competence motivation & engagement academic achievement externalising behaviour social/emotional distress	0.18 0.25 0.12 -0.18 -0.14	interventions addressing classroom climate
<b>Weare &amp; Nind (2011)</b> systematic review	both	most universal (N= 46 of 52), some both (N = 14).	internalising wellbeing/SEL  externalising (violence, bullying, anger)	small to modest small to moderate  small  (effects tended to be stronger for at-risk children)	

Figure 5: Table 5.1 from Hurry et al. (2021), p.16

In summary, several good-quality reviews suggest that interventions can have small to moderate effects and that there are benefits of universal and targeted approaches, with targeted approaches often leading to bigger effects. Interventions seem to have most impact on social and emotional skills and this is likely because many programs focus on

these aspects of wellbeing. Very strict reviews, such as that of Public Health England (2019), found no promising interventions. Several reviews highlighted the benefits of engaging a variety of different adults in interventions (e.g., teachers, caregivers, and community members). Importantly, many of the reviews indicated that the efficacy of

the programs will be influenced by many factors, such as implementation, environment, population, engagement, etc. This indicates that interventions should be thoroughly tested in a variety of populations and settings, and even this does not guarantee success. This further supports the need for measurement and monitoring of interventions in each school setting.

### Challenges of Reviews

One issue with systematic reviews into educational programs, highlighted by Dix et al. (2020), is that selection criteria for systematic reviews often select only the most robust research evidence for programs. This means that programs which are effective, but have poorer research evidence, can often be missed out. However, findings in all these reviews must be approached with caution. Even with RCTs, and more so in these experiments, there is still a high risk of bias, since it is challenging to blind the participants in educational settings.

### Other Noteworthy Interventions (Single Experimental Studies)

#### *Healthy Minds*

Beyond the evidence from these reviews, there are several other noteworthy interventions. Healthy Minds, for example, is a program developed by the London School of Economics (LSE) which significantly improves behaviour, physical health, life satisfaction and global health (but not emotional health), but also increases anxiety. It is significant in that it is impactful, but low cost, and takes a multi-year approach. The program costs £23.50 per student per school year (or £94 per student for the entire program) and is taught over 4 years with multiple sessions (for PSHE) and extensive teacher training. This program also includes content about wellbeing itself rather than just interventions for the drivers of wellbeing (Lordan & McGuire, 2019). This evidences a wider trend, whereby learning about wellbeing has become a part of many wellbeing interventions. A review by Mackenzie and Williams (2018), for instance, considers the Personal Wellbeing Lesson Curriculum, which is about the 'scientific basis of happiness', focusing specifically on 2 core aspects which have been shown to be useful: positive emotions and experiences, and positive relationships.

### *Bullying Interventions*

Bullying has been shown to be a major contributor to pupil wellbeing, and school-based anti-bullying programs have been shown to be successful (Currie et al., 2012) in not only improving the wellbeing of the students while attending school, but in producing continued positive effects as they move into adulthood (Bond et al., 2001; Ttofi et al., 2011). Another bullying intervention which has demonstrable efficacy is the KiVa program in Finland, which has proven so popular it has had near national roll-out: in its first trial it reduced bullying by 30%, and when it was implemented (almost) nationally, the reduction was 15% (Clark et al., 2018). Anti-bullying programs are some of the most widely researched and implemented whole-school interventions, with evidence showing that they can be effective and have a positive impact on young people's mental health and wellbeing (Currie et al., 2012; Langford et al. 2015; Smith et al., 2004; Ttofi & Farrington, 2011; Vreeman & Carroll, 2007).

### *Cognitive Behavioural Therapy (CBT)*

In schools, CBT approaches have been popular and can be delivered as part of school curriculums. For instance, Hong et al. (2011) describe 13 sessions of CBT delivered once per week for three months in a school in China. These were aimed at the development of a positive attitude towards life, self-awareness, empathy, management of anxiety, and interpersonal communication. The CBT program significantly lowered behavioural problems. Similarly, Dray et al. (2017) reviewed universal programs designed to improve adolescent mental health in the school setting and found that those programs that were CBT-based improved outcomes in depressive symptoms, anxiety symptoms, and general psychological distress.

### *Non-professional Interventions*

Interventions that have received very little academic interest are 'non-professional' interventions such as participation in arts, listening to music, engaging with nature, and community engagement (Wolpert et al., 2019). There would be value in exploring these less targeted interventions to see what their effect on wellbeing would be empirically. Some areas show promise, but the quality of the academic research is low: for example, a systematic review into dance and sport interventions for wellbeing found that physical activity with a meditative element (such as yoga and Baduanjin Qigong), and group-based or peer-

supported sport and dance showed potential for increasing wellbeing (and also some negative effects around competency for sport and dance) but the literature was poor quality so no firm conclusions could be drawn (Mansfield et al., 2018). Similarly, a review of school-based wellbeing interventions suggested that further research is needed before the best programs for implementation can be identified and suggested to schools (O'Connor et al., 2018). A recent review of digital wellbeing interventions for primary (elementary) school pupils, meanwhile, has showed promise; again, however, further research was required to draw firm conclusions (Sakellari et al., 2021).

### Are WSAs and Universal Interventions Cost-effective?

Cost-effectiveness of interventions is an important factor for schools to consider, but many studies of interventions do not include a full costing or details of health economics. A review of the cost-effectiveness of universal interventions aiming to promote emotional and social wellbeing in secondary (middle and high) schools has been undertaken by Hummel et al. (2009). They suggested that a tentative figure (due to a lack of available data) for the cost-effectiveness of a bullying program (in a school of 600 pupils) could be around £20,000 if the program is 5% effective in reducing victimisation in a school with an initial victimisation prevalence of greater than 35%, or 20% effective in a school with victimisation prevalence greater than 10% (for further details see the full review). The cost of these interventions to schools can be a large factor in their decision of whether to employ them and therefore any interventions designed by the IBO should highlight any associated costs for schools to consider (teacher training time/cover, resources, etc.).

### Targeted interventions

The high-quality research into targeted interventions is less advanced than the research into universal interventions because targeted interventions, by their very nature, often include smaller groups of pupils, which can make statistical analyses challenging. Several reviews have been conducted into targeted interventions and the findings suggest that more longitudinal research is needed to explore their impact over time. A small systematic review (Cheney et al., 2013) suggested that there is often a lack of documented information about the effectiveness of targeted interventions, longitudinal work with larger

samples is needed, and where systematic reviews can be conducted, the studies are often so heterogeneous that firm conclusions cannot be drawn. Where targeted interventions do have good research evidence, they seem to be effective, but, similarly to the findings for universal interventions, their efficacy cannot be relied up, and outcomes can change depending on population, context, and implementation (e.g., Wolpert et al., 2013). As above, this points for the need for measurement across different samples and contexts, and, where possible, in each school setting. Below we give some examples of targeted interventions. These examples are in no way exhaustive but are intended to highlight some of the challenges with conducting targeted interventions (e.g., small sample sizes, and issues with teacher training and implementation; for further details see section 1.5).

#### *For Pupils with Learning Disabilities*

The literature on targeted interventions for specific populations can often be limited due to sample sizes available. For example, a mini-review of the psychological aspects of students with learning disabilities in e-environments which arose due to the shift to home learning during the pandemic, found that most of the studies they reviewed had very small sample sizes, and therefore the conclusions that they could draw for these populations were limited. However, they did suggest that wellbeing for those with learning disabilities (in an e-environment) could be improved by teachers focusing on the quality of the relationships between teachers and peers, and on accessibility for those with learning disabilities, to enhance inclusion.

#### *For Children Who Are Refugees*

Similarly, a literature review of the integration of refugee children in primary schools suggested that the situation globally is complex and varied, with some refugee children settling well and some facing challenges integrating. Although there is a legal refugee framework, adherence to this is often poor. Preliminary findings suggest that interventions were not successful due to poor implementation, unsuitable school infrastructure, and personnel shortages. Strategies such as teacher training, the presence of a school psychologist, and awareness programs for school management were deemed crucial to support the wellbeing of refugee children while they integrated into the new setting (Adams-Ojugbele & Mashiya, 2020). A scoping review into 20 interventions to

improve the mental health and wellbeing of adolescent forced migrants suggested that the programs faced challenges related to intercultural exchange, difficulty gaining access to communities and promoting care-seeking, resource limitations, and sustainability. Approaches that were deemed to be most useful were adapting services to individuals and their contexts, taking a multi-layered approach across the pupil's various social ecologies, and building trusting and collaborative partnerships (Bennouna et al., 2019).

#### ***For Pupils with Conduct Disorders***

Further, a review of targeted interventions for primary (elementary) school pupils with conduct disorders showed some promise for Cognitive Behavioural Therapy (CBT) for anxiety and mood disorders (but a meta-analysis of 4 of the 14 studies showed no significant benefits for the intervention groups; Shucksmith et al., 2007). Indeed, CBT is one of the most widely evaluated interventions for mental illness and is used in targeted interventions in schools (Caldwell et al., 2019; Hurry et al., 2021). In an overview of systematic reviews focusing on adolescent mental health, the authors reviewed 38 heterogeneous interventions (including school, community, digital, and family interventions), and

found that targeted group-based interventions using CBT were effective in reducing depressive symptoms, and that community-based creative activities had some positive effect on behavioural changes, self-confidence, self-esteem, levels of knowledge, and physical activity (Das et al., 2016).

#### ***For Children Who are Victims or Perpetrators of Bullying Behaviour***

Although school-based interventions in general do not have any notable adverse effects, one area in which schools should proceed with caution is targeted interventions for bullying. Reviews have found that peer work around bullying, particularly with the perpetrators of bullying, can lead to an increase in subsequent bullying behaviour (Farrington & Ttofi, 2009; Shucksmith et al., 2007). For targeted interventions, such as those that target bullying behaviour, research suggests it is more effective to target older populations (Mytton et al., 2002; Garrard & Lipsey, 2007; Farrington & Ttofi, 2009). For drivers such as physical activity, community-based and targeted interventions (for those with the lowest level of fitness) were shown to be most effective (Ussher et al., 2007; Langford et al., 2014; Lawton et al., 2017).

### **1.6.2 Teacher Wellbeing**

Levels of teacher stress, burnout, and teacher retention are prominent issues in many countries around the world (Galton & McBeath, 2008; Johnson, Berg & Donaldson, 2005; Stoel & Thant, 2002). A report by the Education Policy Institute (Fullard & Zuccollo, 2021) highlights that, in England, "The teaching profession faces problems with retention at all levels of experience. The 5-year retention rate has fallen by 6.8 percentage points since 2010, from 74.2 per cent to 67.4 per cent. However, the 9-year rate has also fallen by 6.2pp since 2011, and even the 12-year rate has fallen by nearly 4pp" (p. 1). Worryingly, 30% of teachers globally have been found to be affected by burnout or psychological ill-being (Schaufeli & Bakker, 2004; Johnson et al., 2005; Hakanen et al., 2006; Unterbrink et al., 2007; Schaarschmidt & Kieschke, 2013). The impact of COVID-19 on teacher wellbeing has also been negative, with the start of the pandemic seeing spikes in anxiety in teachers both as schools were shut down and as announcements to reopen were made (Allen et al., 2020). Work-related wellbeing is essential to teacher recruitment and retention; and research in

England and Norway shows that general satisfaction with work is crucial for teacher retention (Kyriacou, Ellingsen, Stephens & Sundaram, 2009). Improving teacher's wellbeing is also important to improve student experiences and education—for instance, with respect to early childhood, teachers' increased stress and lower wellbeing negatively impacts their ability to provide a responsive environment for children (Tebben et al., 2021). Indirect effects have also been found for the impact of teacher wellbeing on child development and on academic achievement (Moolenaar, 2010; Roth et al., 2007). As such, it is important to explore what can improve teacher wellbeing.

The role of the teacher is not to solely teach a subject but is also a front-line position that involves all manner of social interactions daily; regularly managing emotion regulation, social behaviour, and high rates of mental distress and illness amongst pupils. However, teachers are usually not trained to deal with these interpersonal interactions beyond classroom management; they are either left to

devise their own strategies or given support or instruction from their senior leadership team (Hurry et al., 2021). Not only should teachers be given training to support them in this crucial role, the emotional toll that these student-teacher relationships take should also be recognised as a contributing factor to teacher stress and burnout (Alisic, 2012). Therefore, improving teacher wellbeing should be encouraged to reduce stress and burnout, retain teachers in the profession, potentially directly or indirectly improve pupil wellbeing, and make the classroom and school environment more positive.

### Teacher and Pupil Wellbeing

The academic literature suggests there is an association between teacher wellbeing and pupil wellbeing: where there are happier teachers, there are also happier pupils (Hurry et al., 2021). There may not be a direct causal link (they may both be caused by an unknown third factor, such as school climate) but the research is nearing evidence for a causal relationship (Klusmann et al., 2016; Harding et al., 2019). In a qualitative study about teacher wellbeing in primary schools, teachers reported that children were attuned to their teacher's mood and could usually pick up when they were feeling stressed. Interestingly, this was even the case even if teachers tried to hide it (Glazzard & Rose, 2019). A further qualitative study on teacher wellbeing suggested that "the most well-received wellbeing measures are those embedded within supportive whole school cultures which aim to minimise burdensome workloads and maximise feelings of autonomy, relatedness and competence, [and] the least effective initiatives were those that reacted to a perceived problem but did not seek to address the cause of perceived poor wellbeing" (Brady & Wilson, 2020, p. 45).

A positive relationship with teachers positively impacts students' wellbeing as well as other factors like academic attainment (Howes & Hamilton, 1992; Milatz et al., 2015). However, relatively less research has been done on the impact of the

#### 1.6.2.1 Interventions

Despite the obvious need highlighted above, there are, however, very few interventions for improving teacher wellbeing. One systematic review reported low-quality evidence and very few positive effects (Naghieh et al., 2015). To explore potential ways to improve teacher wellbeing, we can also look to the academic literature for wellbeing in adulthood. Although teaching is a near unique profession in

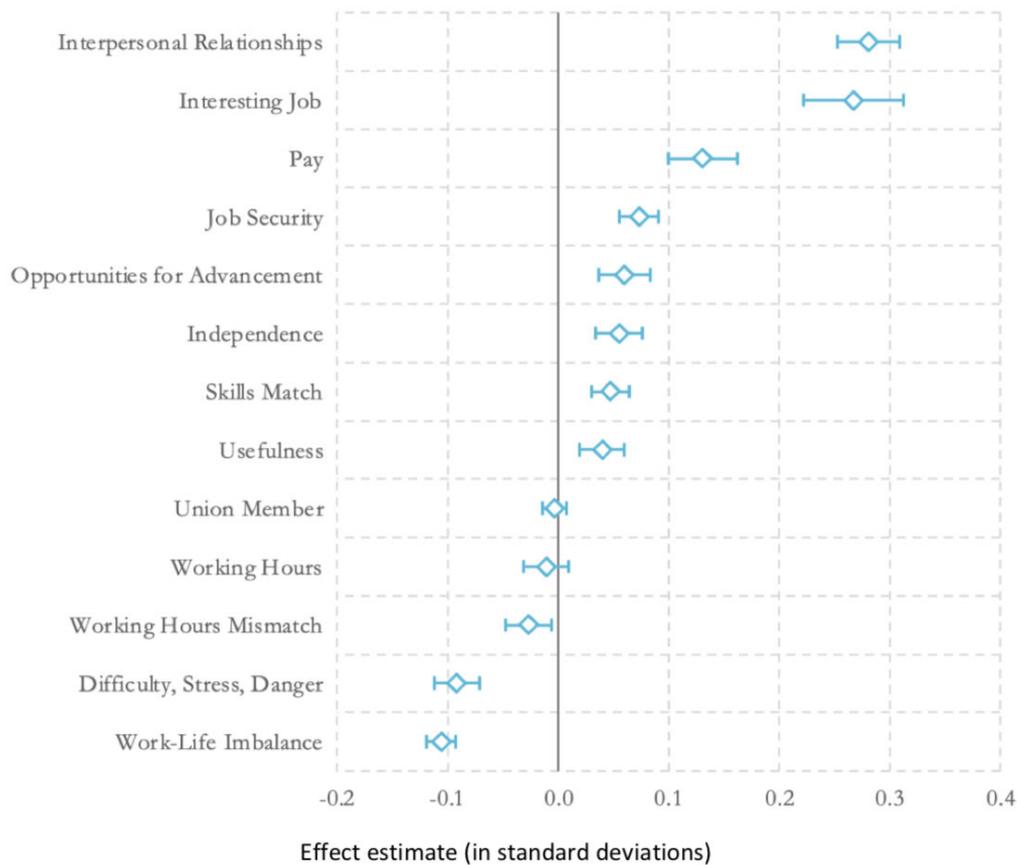
relationship on teachers' wellbeing. Teachers often mentioned their relationship with students as a core reason for remaining in the profession (O'Connor, 2008). Meanwhile, qualitative research in both primary (elementary) and secondary (middle and high) schools found relationships with students to be an important source of enjoyment and motivation for teachers (Hargreaves in Spilt et al., 2011). Direct, empirical studies measuring the relationship remain low. However, significantly, Milatz et al. (2015) studied levels of attachment between students and teachers using the student-teacher relationship scale that measures extent of closeness, dependency, and conflict (Pianta, 2001; Pianta et al., 2003). They found that teachers who felt more connected to their students experience lower levels of burnout. This study confirms the theoretical modelling of Spilt et al. (2011) that highlights the impact of student relatedness on teachers' wellbeing and stress.

Often, teachers experience of negative wellbeing are impacts and stressors that are associated with work itself—for instance, in interactions with their colleagues and conflict with superiors (Tebben et al., 2021). Minimising their frequency or impact can improve teacher wellbeing. At the same time, help-seeking from colleagues, peers, and mentors can be helpful in building resilience and overcoming workplace-specific challenges (Castro et al., 2010). Management styles also influence teacher wellbeing, and wellbeing is one of the priorities in human resource management in schools (Pagán-Castaño et al., 2021). Performance is affected by the influence of 'leadership by example' and of innovative management styles, which influence (have a mediating effect on) wellbeing (Pagán-Castaño et al., 2021). Meanwhile, Collie et al. (2020) find that if educational leaders in school support teacher autonomy, empowerment, and self-initiation (what has been termed 'autonomy supportive behaviour' by Slemp et al., 2018), teachers find more 'workplace buoyancy', positive relationships with students and colleagues, and less exhaustion, and greater work-related wellbeing.

terms of the organisational structure and daily demands, there are some insights which can be gained from wellbeing research in the general adult population. In this population, there is international evidence to suggest that some of the drivers of wellbeing include: mental health; physical health; relationships at work; relationships at home; relationships in the community; income; and

unemployment. While we know that having a job is important for wellbeing, amongst those who are employed, we find that work is one of the least enjoyable (near) daily activities in their lives. Given that the average adult spends around 30% of their waking hours at work (Giattino et al., 2013), this naturally can have a significant impact on their wellbeing. The extent to which people enjoy their jobs depends on several factors: income; relationships with colleagues and managers; flexible working; and finding meaning in the job. Improving any of these factors can have an impact on wellbeing, and those who report higher wellbeing at work perform better (Bellet, De Neve

& Ward, 2019). The chart below (reproduced from De Neve et al., 2018), shows some of the drivers of job satisfaction across Europe. The most important factor of these is *who* we work with; the extent to which employees feel supported by their colleagues is the single most influential driver of both job satisfaction and life satisfaction (De Neve et al., 2018). When we examine the variables involved in job satisfaction, several will be potentially disrupted in the teaching profession, especially working hours and work-life imbalance. Given what we know about teacher wellbeing and the effect it has on pupils, it is crucial to consider how to support teachers at work.



**Figure 6: Effect of Workplace Characteristics on Job Satisfaction (De Neve, 2018)**

While methods to improve teacher wellbeing are beyond the scope of this report, it is highly recommended that the IBO and school

stakeholders explore teacher wellbeing interventions, along with any pupil interventions they are considering, as the two are strongly linked.

### 1.6.3 The Importance of Proper Implementation

Implementation has been flagged as an essential component by most researchers exploring the routes to successful interventions for wellbeing (including SEL and mental health interventions; Weare & Nind, 2011; Durlak et al., 2011; Hurry et al., 2021). Reviews of SEL interventions have found that intervention quality is an important factor in determining effectiveness (Weare & Nind, 2011; Wilson et al., 2003; Wilson & Lipsey, 2006; Durlak et al., 2011), as is fidelity to the program (Durlak & Weissberg, 2007; Durlak et al., 2011). Durlak and DuPre (2008) reviewed over 500 studies, and a further 81 reviews, and concluded that implementation mattered for the outcomes of youth-focused prevention and promotion programs (in a wide-range of SEL-related topics). They found the mean effect sizes were two to three times higher when the interventions were properly implemented. Twenty-three relevant factors around implementation were identified. The authors promoted shared decision-making and community ownership as key elements of implementation, suggesting that schools should empower their staff and pupils by involving them in the decision-making about interventions. The authors also emphasised the need to find a balance between adaptability (or flexibility) and fidelity: the interventions must be made fit-for-purpose for the educational setting, but not so much that all fidelity to the original program is lost (because the higher the fidelity, the better the outcome). Therefore, it is important to identify the theoretically important components of any intervention and ensure that they are retained, while other aspects can be adapted to suit the users' needs.

Weare and Nind (2011) outline four key aspects of successful implementation supported by numerous reviews of the SEL and mental health literature: “a sound theoretical base explicitness—specific, well-defined goals and rationale, communicated effectively to staff and leaders through thorough training and linked explicitly with the intervention components; a direct, intense and explicit focus on the desired outcome rather than using a different focus and hoping for indirect effects; explicit guidelines, possibly manualised thorough training and quality control consistent staffing and the specification of individual responsibilities; [and] complete and accurate implementation” (p. 63). Hurry et al. (2021) suggests that most WSAs are poorly implemented, and therefore assessing effectiveness is challenging. They suggest that there are several key markers of successful

implementation which should be considered by stakeholders when considering a WSA. Any interventions under consideration should have a sound theoretical base, clear outcomes, be easy to implement in the intended setting, and have explicit guidelines which are possibly manualised. It is also important that implementation is carried out as recommended in the program. Of particular importance is for school stakeholders to pick interventions that will most easily fit into the setting they are to be implemented or can be adapted to do so without removing the theoretically important aspects of the program. The harder the program is to implement, the less successful it is likely to be. The authors also suggest that early, up-stream, intervention is preferred, where possible. The belief that the earlier positive trajectories are established, the better, is largely supported in the literature, with research in some areas (such as anxiety) finding the greatest changes amongst primary (elementary) school pupils (e.g., O'Brennan, Bradshaw & Sawyer, 2009).

Weare and Nind (2011) further suggest that full curriculum integration is more powerful than a stand-alone unit, i.e., teachers should be encouraged to teach mental health or wellbeing across a whole program rather than just as one isolated unit. This way, the topic can be reinforced and viewed from multiple perspectives (Adi et al., 2007; Berkowitz & Bier, 2007; Rones & Hoagwood, 2000; although Hahn, 2007, found that the teaching methods made no difference to efficacy). The authors also find that a more holistic approach was preferable in several other reviews (e.g., Greenberg et al., 2001; Merry et al., 2004; Wells et al., 2003), as was taking a positive perspective (rather than a problem-based perspective; Browne et al., 2004; Green et al., 2005; Wells et al., 2003). Further, active rather than didactic methods were reported to be more effective (Berkowitz & Bier, 2007; Browne et al., 2004; Diekstra, 2008; Durlak & Weissberg, 2007; Durlak et al., 2011). Some research also suggests that whole-school approaches to target behaviours like bullying (with multiple components) may be more effective than curriculum-based interventions focused solely on bullying (Vreeman & Carroll, 2007), which is a sound approach also from the perspective of inter-year or inter-class bullying. However, contrary to expectations, other researchers have found that there was no difference in efficacy between interventions at the program level and the school level (Durlak et al., 2011; Wilson & Lipsey, 2007).

They suggested this may be due to dilution of impact at the school level. However, with proper implementation (to reduce dilution effects), interventions at the school-level focusing on school ecology school be valued (Greenberg et al., 2001).

Goldberg et al. (2019) suggest that staff buy-in is important, and that staff should receive guidance on implementation. Useful approaches include establishing a team who are focused on leading implementation, holding whole-staff meetings, progress meetings, and professional development training. Similarly, Lyon et al. (2019) suggest that ongoing training and coaching are important for successful implementation, along with monitoring of the implementation progress. There is mixed evidence about whether to use professional external staff to implement interventions or to use 'in-house' trained staff. Some research has shown

that impact was positively affected by having a qualified intervention leader (Scheckner et al., 2002; Wilson et al., 2003; Beelman & Losel, 2006; Wilson & Lipsey, 2006). Some, meanwhile, have indicated that trained teachers can deliver interventions as effectively as external specialists, and that teachers must be involved for 'buy-in' and to get to the core of the school processes (Adi et al., 2007; Wilson & Lipsey, 2007; Diekstra 2008), and training those in leadership positions is essential (Adi et al., 2007; Berkowitz and Bier, 2007; Diekstra, 2008). Further, a review of targeted primary school interventions by Shucksmith et al. (2007) suggests that while employing a professional when the intervention is starting out can be beneficial, this is not a sustainable approach in the long-term or for universal interventions.

#### 1.6.4 Key Findings and Recommendations

**Key Finding #12:** Community consultation and ownership is recommended for wellbeing strategies to be adopted and promoted by the school community (parents and caregivers, pupils, staff, wider community, and other school stakeholders such as school governors). This should crucially include pupil voice and a child-focused approach.

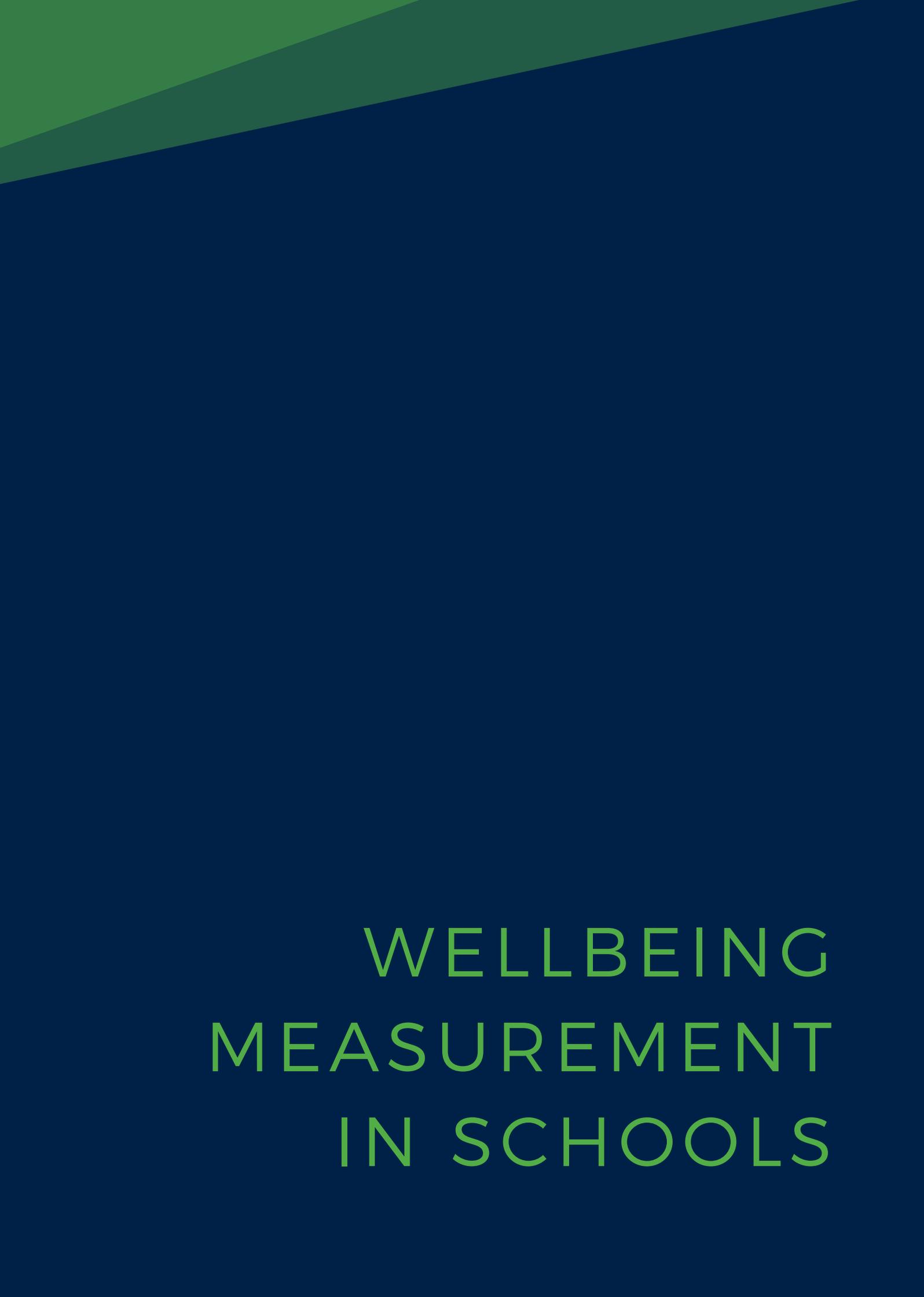
**Key Finding #13:** Wellbeing policies and strategies should be formalised, any program implemented should have clear guidelines (or be manualised), and staff should know which areas they are individually responsible for.

**Key Finding #14:** Interventions should have a sound theoretical base and when interventions are delivered, school stakeholders should ensure that these essential theoretical elements are taught during the intervention and not lost through adaptation. These interventions should also aim to be direct and specific for the desired outcome.

**Key Finding #15:** External experts can be useful for the initial set up of an intervention, but for the intervention to thrive, in-house staff must take over to ensure that the intervention becomes embedded and is successful in the longer-term.

**Recommendation #16:** School stakeholders should select interventions that are the easiest to implement in their educational setting. If an intervention is challenging to implement, it is less likely to be successful.

**Recommendation #17:** Implementation of an intervention is an important factor in determining its effectiveness. Implementation should be carefully considered by school stakeholders as a crucial element of any wellbeing intervention.

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WELLBEING  
MEASUREMENT  
IN SCHOOLS

Measuring wellbeing is the first step in improving wellbeing and something that school stakeholders should consider before exploring any possible interventions. The first step of the measurement journey is taking stock of what data each school already has available and what baseline measures they should take. Baseline measurements are needed to determine how effective any interventions have been and helping school stakeholders understand what the current state of wellbeing is across the population in their educational setting. The measurement tools that we will focus on are primarily subjective wellbeing measures but if school stakeholders are not comfortable with using the term subjective wellbeing, they can simply use ‘wellbeing’ or ‘psychological wellbeing’. Below we will explore the many measurement options available to school stakeholders, assess which approaches are most practical and discuss any considerations that school stakeholders may wish to take.

Fortunately, schools do not need to start from scratch designing their own measurement instruments. Although research into subjective wellbeing in childhood and adolescence is a relatively new research area, a great deal of progress has been made in the last twenty to thirty years in terms of conceptualising, operationalising, measuring, and improving wellbeing through

interventions (Rees et al., 2010). This includes the publication of a rich variety of literature which explores the most precise and effective ways to measure wellbeing in childhood and adolescence (e.g., The Good Childhood Reports, the Children’s Worlds surveys, and the PISA reports). As wellbeing research has grown, so too have wellbeing measurements. The complexity of defining wellbeing, which has a largely inter-disciplinary theoretical basis, and the lack of a universal conceptual criteria, are challenges that have led to the creation of a variety of wellbeing measures rather than a universally accepted single measure (Linton et al., 2015). There are hundreds of existing wellbeing questionnaires for children and adolescents; over 200 in the UK alone according to the State of the Nation Report (2019). These measures vary in length, content, and the amount of available empirical evidence that support them. The development of such wellbeing measurements has largely focused on self-report measures, and subjective wellbeing has been evidenced to be a valuable way of capturing wellbeing, possibly even more so than parent or teacher reported measures (Riley, 2004). Below we present a measurement strategy for the IBO and school stakeholders which includes core measurements and more bespoke questionnaires which can be selected based on their appropriateness for the target population and educational setting.

### 1.7.1 Core Measurements and Key Performance Indicator (KPI)

As a practical first step, we suggest starting wellbeing measurement across IB schools and programs with a core set of measurements and a single KPI that school stakeholders can use to compare themselves with other educational settings locally, nationally, and internationally, and compare their own progress over time. This will also allow the IBO to have a comparable set of measurements across its programs and schools which can be used for insights and reporting. We are not suggesting a single-item approach alone but, rather, proposing a core or foundational set of measures that programs, and schools, can select from, easily administer, and utilise to improve wellbeing. Schools are often paralysed by the wide variety of options available to measure and improve wellbeing; by using a single KPI and a set of core measurements (and the freedom to add any other recommended measurements which are required for the target population), school stakeholders will be able to easily measure and understand the current state of wellbeing in their

educational setting and whether any interventions are actually required, and if they are, with which populations. Coupled with other qualitative and quantitative measures, school stakeholders will be able to assess what action is required. If schools can identify any problem areas for their pupils or staff, then they are better equipped to find the best scientific evidence to support interventions in these areas. We emphasise that the single item KPI will not capture all elements of wellbeing, but for schools who are limited on time and resources, it will be a useful ongoing tool. This single item KPI approach (initially proposed by Andrews & Withy, 1976) is now used internationally to assess wellbeing in the adult population (see Chapter 2 of the 2020 World Happiness Report for an explanation of the single item approach in the adult population). Overall life satisfaction is the most common measurement used for subjective wellbeing (Proctor, Linley & Maltby, 2009), taking the form of the Cantril Ladder (Cantril, 1965) or

rating life satisfaction on a Likert-type scale from 0 to 10.

To assess wellbeing, we propose employing the overall wellbeing measurement used by PISA:

*Overall, how satisfied are you with your life as a whole these days? (from 0, “not at all satisfied”, to 10, “completely satisfied”)*

Although we strongly believe that overall life satisfaction should be part of the core measurements, we propose a more school specific item as the KPI (also from PISA):

*How satisfied are you with your life at school? (from 1, “not at all satisfied”, to 4, “totally satisfied”)*

We propose school life satisfaction (school-specific wellbeing) as the KPI, rather than overall life satisfaction (overall wellbeing), for several reasons. The wellbeing of young people cannot be separated from the context of school; as schools provide both the defining context and can influence children and adolescents’ wellbeing (Fraillon, 2004). Research suggests that focusing on wellbeing at school specifically is essential because it may differ from their overall or other domain specific wellbeing (Huebner et al., 2000; Zappulla et al., 2014). Therefore, wellbeing measures specific to schools and to school-based factors are highly relevant for the measurement of children and adolescents’ wellbeing. For schools to understand whether they are ‘moving the needle’ on wellbeing they need to have a KPI which they can reasonably influence. Although overall wellbeing is highly useful, school-specific wellbeing is an area that school stakeholders are more likely to be responsible for and able to improve upon (this is a similar reason to why we have focused on wellbeing rather than improving mental ill health in this report). Although mental health measurements are highly valuable (and we propose should be included as additional measures), schools only influence around 1-6% of the variance in mental health (Ford et al., 2021; Hale et al., 2014; Roeger et al., 2001), whereas wellbeing is the overarching good or ‘summum bonum’ that can be significantly influenced in the educational setting (particularly if the focus is on pupils’ school wellbeing [school life satisfaction]).

We have avoided taking a dashboard or index approach which is a popular child wellbeing measurement strategy. As we have explored in the definitions section (1.1), using a dashboard or indices approach to measure wellbeing is very common but can become complicated. If we hypothetically take six factors (or indices) that we believe make up a child’s overall wellbeing score, how do we know how to weight these factors? Is a

factor like positive affect more important than, say, low anxiety? What if one factor increases and one decreases after an intervention? What can we say about overall wellbeing if the results are not positive across all the six factors? Therefore, we suggest subjective wellbeing (focused on school life satisfaction) as the ‘north star’ or ‘common currency’ which can underpin all interventions. In this way, all other factors that schools explore are seen as drivers of subjective wellbeing. We are still free to measure the hypothetical six other factors, but if we also have an overall KPI we can always compare our progress in a quick and accessible way (without complicated statistics or weightings). This makes it much simpler for school stakeholders to conceptualise wellbeing in schools and to assess the progress of any interventions. Further, some authors argue that looking at overall life satisfaction is a higher order measure of wellbeing (e.g., Cummins, 1998; Veenhoven, 2005) than a set of domains, and this could also be the case for school satisfaction, but further analysis will be needed to explore this. School stakeholders can decide for themselves how many measures they include and can decide to measure many different aspects of wellbeing to look at it in more granular detail if they wish, as long as schools utilise the recommended core measurements which will give them access to a whole pool of comparison data locally, nationally, and internationally.

It should be highlighted that the single item approach is not comprehensive and there is no agreement in the literature about which single item should be used. Some aspects of wellbeing may be over- or under-represented or more- or less-sensitive to cultural norms. However, even if we have access to a seemingly comprehensive set of measurements such as the questionnaires used in PISA or Children’s Worlds, they will never be entirely comprehensive across ages and populations, and they just are not feasible or practical for schools to use without data scientists

to analyse and interpret the data. Further, research from the UNICEF Report Card 11 (UNICEF Office of Research, 2013) suggests that there is some evidence that subjective wellbeing is associated with all the elements of objective wellbeing, which further lends support to the subjective approach. However, this is not to say that schools should not employ objective measures in addition to the core measures if they see value in them and can analyse the data appropriately. Schools also already have access to a wide variety of objective measures which they could employ with the core subjective measures to assess which objective elements are driving subjective wellbeing (if they have the statistical knowledge, or access to a platform which

can conduct these analyses in the ‘back-end’ and give them access to the results). An important approach used by the Children’s Worlds surveys and PISAs is to ask young people about their life satisfaction on several different domains. While measuring overall life satisfaction (wellbeing) or school life satisfaction is highly informative, there is also value in measuring and monitoring how young people are faring in other specific domains (Andresen, Bradshaw & Kosher, 2019; Ben-Arieh et al., 2014; Dinisman & Ben-Arieh, 2016; Rees, 2017). We have included 9 other items which we also propose are included in the core measurements which all come from the PISA 2018 wellbeing questionnaire.

## Core measurements

**How satisfied are you with your life at school?** [Key Performance Indicator]  
(from 1, “not at all satisfied”, to 4, “totally satisfied”)

**Overall, how satisfied are you with your life as a whole these days?**  
(from 0, “not at all satisfied”, to 10, “completely satisfied”)

**How satisfied are you with each of the following?**  
(all responses from 1, “not at all satisfied”, to 4, “totally satisfied”)

**Your health**

**The way that you look**

**What you learn at school**

**The friends that you have**

**The neighbourhood you live in**

**All the things you have**

**How you use your time**

**Your relationship with parents/guardians**

**Your relationship with teachers**

With some basic analyses, these items will give initial indications to school stakeholders of what might be worth exploring next in more comprehensive questionnaires, and if age and gender were included in the analyses, schools would have a good first insight into wellbeing in their school. In addition to these core measurements, we also recommend conducting qualitative community-led assessments within the school to see what other measurements might be appropriate or desired by the students and staff. The core measures will not identify unique elements of each specific educational environment (as they are quantitative and limited in scope), so it is essential to use within-school local knowledge to identify pressure points that might be affecting wellbeing. The framework should also not replace any mental health assessments that the school regularly conducts. If the school already measures

depression and anxiety, for example, we recommend that they keep these assessments in place as they will be valuable indicators of change. We also strongly recommend that all staff and pupils complete a school climate measure (see ‘beyond the core measurements’ below) because, as we have seen (in section 1.4.2.3), this is an important factor in wellbeing across the school setting.

The 11 items that make up the core measurements will be very quick to complete. Provided that the pupils have access to an easy digital system through their program or school, these core measurements should be accessible to most students over the age of 8-years-old. Questionnaire completion should take higher ability and older students around 5-7 minutes to complete, with slightly longer needed for younger and lower ability

students. The questions should be feasible and appropriate for most pupils (aged 8 and over) provided they are given appropriate support (in reading and comprehension). The ONS (2011) estimates that single-item questions on evaluative, eudemonic, and affective subjective wellbeing with a 0-10 response format takes respondents (including young people) 30 seconds to answer. Obviously, this will take longer the lower their reading comprehension age and will depend on the response scale. The IBO will need to decide for these core measurements, and the KPI, whether they use the same 4-point response scale or increase to a 10-point-scale like the overall life satisfaction question. The challenges of using a 10-point scale are discussed below (section 1.7.5). Regardless of the response scale chosen, we propose these core measurements for age 8 and above because collecting self-report data above a certain age (usually age 8, such as in the Children's Worlds surveys) has been shown to be reliable (Casas, 2017; Casas & Rees, 2015). For younger children, who can't reliably sit and complete questionnaires, there are other methods such as vignette or story-based methods. We recommend that the IBO explore using the core measurements in younger age groups with support from teachers, additional explanations, and the possibility of short pictorial (facial expression) response methods. It could be the case that these core items are appropriate for use in primary (elementary) age children (age 5 and up) with some minor adjustments, given their simplicity.

## 1.7.2 Beyond the Core Measurements

If a school is limited by time and resources, they could just use the core measurements and data that they already have access to (attainment, attendance, age, gender, etc.) to begin to explore wellbeing, but if time and resources allow, we would highly recommend using other qualitative and quantitative measures, along with the core measurements, to better understand wellbeing across their educational environment. We strongly suggest that this exploration of wellbeing is a community effort and that the measures are selected by community consultation (even if this is consultation on a pool of pre-selected robust and high-quality measurements selected by the Wellbeing Lead or Senior Leadership Team).

The OECD report on subjective wellbeing (2013) suggests that subjective measures are used in addition to other measures of child wellbeing, this is a preference that we support, and we suggest

With these core measurements, schools can go further than just an overall assessment of a year group or class. It is useful (in analyses) to group pupils in terms of their school satisfaction: for example, very low (lowest 25%), average (middle 50%), and very high (highest 25%), in this way schools can see the differences between the pupils in their population who are scoring at different ends of the wellbeing spectrum. Further, it will be essential not only to look at average wellbeing across a school year but also the distribution; two different schools may have an average school life satisfaction score of 7 but if one school has pupils tightly clustered around this number and one has a huge spread of wellbeing scores then the schools will need to take different approaches to how they manage any wellbeing interventions. It is very important to flag inequalities and disparities across the school population (not only for wellbeing but also across the other data that schools have access to) and to ensure that those with very low scores are well supported.

The more data we have available that we can utilise in statistical analyses, the more we can understand the population and their needs. Therefore, the core measurements data should be used to complement other data where possible (data already available to the school, other quantitative measures, or qualitative data; Raghavan & Alexandrova, 2015), below we explore what other data school stakeholders can access or collect which could be of use to them in their exploration of wellbeing in their educational setting.

that schools begin to assess wellbeing with the core measurements and then move on to explore which other measurements can complement this in their own educational setting. These measurements used should be child-centred where possible, rather than focusing heavily on families or households. Schools will already have access to a great deal of valuable data: age, gender, school year, home postcode, school postcode, attendance, attainment, mental health referrals, etc. These available data should be used where possible in a variety of different ways (as independent variables, mediators, moderators, and dependent variables) if schools have access to the statistical knowledge (internally or via external professionals) or a ideally an IBO data platform to automatically conduct analyses and interpret findings for them (see section 1.7.3).

It is also highly recommended that a school climate measure is used. From the literature presented in this report, it is clear that school climate and connectedness are important factors and particularly school climate. If the right school climate measure is selected, it can give a 360-degree view of the school from the perspective of the whole community (teachers, admin staff, support staff, catering staff, maintenance staff, pupils, parents, SLT, school governors, etc). To explore the wide variety of measurements available we would recommend the recent report into school climate measures by Schweig et al. (2019).

As previously noted, school stakeholders may wish to measure wellbeing itself in several different ways. If schools want to do a full and comprehensive analysis of wellbeing, they should look to international questionnaires such as the PISA, and the HBSC and Children's Worlds surveys to see the wide variety of questions which are

employed in these comprehensive measures. School stakeholders may wish to take the approach of the OECD, and comprehensively measure each aspect of wellbeing (satisfaction, affect, and eudaimonia). For instance, in a positive psychology intervention in the UAE a total of eight measures were utilised and four of these encompassed different facets of subjective wellbeing: the Scale of Positive and Negative Experience, the Satisfaction with Life Scale, the Flourishing Scale, and the Questionnaire of Eudaimonic Well-Being (in combination with other mental health and happiness measures; Lambert et al., 2020). If other aspects of wellbeing are of interest, we highly recommend first looking at the PISA 2018 wellbeing questionnaire and exploring some of the various reviews which highlight the available tools to measure wellbeing: Linton et al., 2015; Cooke et al., 2016; Schiaffino, 2003. Some brief notable examples include:

- [Satisfaction with Life Scale \(Diener et al., 1985\)](#): adapted for children aged 10 and above. Five questions on psychological wellbeing with a seven-point Likert response format.
- [Multidimensional Students' Life Satisfaction Scale \(Huebner, 2002\)](#): The original version has 40 items but there is also a brief 6-item version available, both have a 5-point Likert scale response format.
- [The Warwick Edinburgh Wellbeing Scale \(WEMWBS; Tennant, Hiller, Fishwick et al., 2007\)](#). The original version has a 14-point scale but a 7-point brief version is available. It is validated for children age 11+.
- [The Student Subjective Wellbeing Questionnaire \(Renshaw et al., 2014\)](#): A 16 items self-report comprised of four sub-scales.

In addition schools can also pick a selection of measures that are right for their setting (e.g. questionnaires that focus on mental health, nutrition/diet, sleep, exercise/physical activity, general health, religion, safety, risky behaviour, alcohol consumption, drug use, family and community aspects, extra-curricular activities, social media use, social relations, poverty, social exclusion, material resources, housing/homelessness, freedom, inclusion, autonomy, self-efficacy, locus of control, resilience, bullying, physical appearance, self-esteem, home environment, satisfaction with physical appearance, material deprivation, parental education, SES, etc.). Schools may also want to use questionnaires that are regularly implemented by their local education authority (or local government) to ensure that they are able to compare themselves with other local education providers. Mental health measures in particular should be considered because school-based universal screening has been considered an accepted way to identify young people who need

further support to improve their mental health and wellbeing (Arslan, 2020), further emphasising the need to measure wellbeing within the schools context.

In data science it is important to only include questionnaires that will be of use. It is very tempting to include a wide variety of measures to explore everything that might impact children's wellbeing, but this is not recommended as it may lead to issues with questionnaire completion and can also result in schools being overwhelmed by the volume of data produced. It is essential that schools measure what they can change. While it might be helpful to understand as much as possible about pupils, there is a limit to how many questionnaires pupils can complete before they get fatigued, disengage with the process, or opt out entirely. A common term in research is 'measure what you treasure' and 'what gets measured, gets done'. These are good rules of thumb and starting with simple measurements and building up over time and as the need arises is an excellent

approach. There could also be an argument for more comprehensive baselining in a young person's first year (in order to be able to refer back and see if any changes have occurred), if a school already has a comprehensive set of measurements that they are confident are appropriate for their wellbeing strategy and setting.

School stakeholders should always proceed with caution when selecting and administering questionnaires that they are suitable for children from diverse backgrounds or those who are in vulnerable positions and it is crucial, even when thinking about WSAs, to be sensitive to the age and stage of the CYP. Even when taking something as universal as sleep or nutrition, there is not a one-size-fits all approach across all ages and some questionnaires or interventions will be more appropriate for some age-groups than others. We recommend looking at some of the excellent literature on measuring mental health and wellbeing in childhood and adolescence, such as the Public Health England and the Anna Freud Centre's guidance on 'Measuring and monitoring children and young people's mental wellbeing: A toolkit for schools and colleges' (Public Health England, 2016) which gives a comprehensive overview of wellbeing measurement in schools, along with their Wellbeing Measurement Frameworks for primary schools, secondary schools, and colleges.

### 1.7.2.1 *Staff Wellbeing Measurement*

Guidance on staff wellbeing from the Mentally Healthy Schools (MHS) initiative at the Anna Freud Centre in the UK emphasises the need to evaluate staff, as well as pupil, wellbeing. In addition to baseline measures for pupils, school stakeholders may want to consider a baseline assessment for their staff of topics such as wellbeing, mental

A 'Children's Well-being Indicator' review from the Office of National Statistics in the UK (ONS; 2020) found that some children are at greater risk of disadvantage than others: "children of parents with poor mental health; children who are homeless and living in temporary accommodation; looked after children including adoption; young parents and teenage pregnancies; children who have experienced child abuse, including sexual abuse; emotional abuse and neglect; children who are a member of a street gang or know a member of a street gang; children accommodated in secure children's homes; children with a disability or long-term limiting illness; children with special educational needs; children who identify as lesbian, gay, bisexual and/or transgender (LGBT); children living in poverty and material deprivation; children who are carers; children who have experienced a bereavement; children with a low birth weight; children with symptoms of mental ill-health; and children in immigration detention centres" (p. 1). These risk factors should be explored by school stakeholders, and children should not be treated as one homogenous group, as these vulnerable young people may need more wellbeing support in educational settings. School stakeholders should proceed with caution (and seek external guidance where appropriate) so that they do not unintentionally stigmatise these more vulnerable children and adolescents. Further, early identification of risk factors and ongoing support may help to prevent some challenging developmental cascades.

health, burnout, and school climate, in addition to any qualitative questions they feel would be useful. Some questions that schools may want to ask themselves before embarking on any wellbeing initiatives or interventions are (based on the findings from the MHS initiative):

- Does your school have a clear staff wellbeing policy or strategy? If so, has it been community designed and led and is it effectively implemented and monitored? Does it apply to all staff (or just teaching staff), and it is implemented fairly?
- Does your school currently implement any initiatives to support staff wellbeing?
- Does your school currently measure staff wellbeing on a regular basis and use the results to implement change?
- Does your school measure the school climate amongst staff (and pupils)?
- Does your school have a member of the Senior Leadership Team (SLT) responsible for staff wellbeing?

To assess wellbeing in adults the Office for National Statistics (ONS) in the UK uses, ‘overall how satisfied are you with your life these days?’ and the World Happiness Report uses the Cantril ladder. It is up to schools which measures to use based on which international data sets they would like to be able to compare their data with, and which measures are most appropriate in their setting. Again, we suggest that the IBO makes recommendations and provides a library of validated and robust measures which schools can select from.

### Frequency of Measurement and Measuring the Efficacy of Interventions

As we have highlighted, the first step is taking baseline measurements in the educational setting (both quantitative and qualitative). These will not only give a comparison for measuring effectiveness post-intervention but will also be crucial to understand which interventions are most needed. This ‘taking stock’ will help all school stakeholders understand ‘where we are now’ and if action is required. After this initial ‘temperature check’ and a consultation process about any interventions for staff and pupils that might be implemented, stakeholders should consider formalising their approach in a wellbeing strategy document which feeds into current school policies (for example, mental health, inclusion, or safeguarding). It should be highlighted that none of these measurements are intended to replace the normal communication and strategies that schools already employ to support pupil wellbeing and we would never recommend using responses on these questionnaires above what a student reports on a daily basis. These measurements are intended to look at the pupil population as a whole, or groups of pupils, rather than to replace any individual interactions in the school setting.

When baseline measurements have been collected, it is up to school stakeholders how often they collect wellbeing measurements. Some schools will decide to do pre- and post- intervention measures, and some will decide to do yearly or termly measurements. Some questionnaires ask about a particular time period (usually the last few weeks or months) and therefore should not be used in assessments more regularly than this. Pulse measurements which happen more frequently during a term are also an option. The time of year also matters for wellbeing measurements. Ideally measurements should not be taken right at the start of term or the year and there are also certain

times of year that students will naturally feel more positive or negative; for example, unsurprisingly, students are usually happier just before the Christmas break than they are at exam time. Measurements, where possible, should be taken at comparable timepoints (in the term or year), and we suggest that they are taken at least yearly as pupils move through the program and school. The core measurements can be taken termly or yearly, but if school stakeholders decide to take more frequent measurements than termly then they may want to consider using measurements that are more sensitive to daily or weekly fluctuations than satisfaction measures which are less transitory (e.g., life satisfaction; Diener et al., 2002). At the program level, the IBO could make recommendations for questionnaires at each age or stage and recommend how frequently these are completed. The IBO could also do some A/B testing (or RCTs) of any newly developed wellbeing curricula to see whether there are any differences between the new curricula and the existing programs.

As suggested by the academic literature above, the easier interventions are to implement the more likely they are to be effective, and the same could be said of measurement. School stakeholders will be acutely aware of the burden that regular measurements place on staff and students. Therefore, there is a delicate balancing act between collecting useful data and questionnaire fatigue or burn-out. Therefore, beyond the core measurements (which have been suggested to keep the burden of completion low, but still provide meaningful information for schools) each school must decide for themselves what data they value and must begin by only collecting what will be useful in their setting. Schools should see wellbeing programs as a long-term plan, over 5 or 10 years, rather than 1 or 2. In this way, measurements can build up over time, depending on what schools find most useful.

It is particularly important for schools to measure the efficacy of their interventions, this means taking a baseline assessment before any intervention is started, and then taking the same measurements after. Schools can even conduct their own mini studies and have control groups (although these may be underpowered for any statistical analyses). A control group is especially useful to control for any changes in wellbeing during the school year; in this way, if schools can randomly split their year groups or try and get a balance of different classes, they can test if any

changes in wellbeing really are due to any intervention.

When conducting measurements in schools, it would be appropriate for the IBO to provide guidance on how best to collect this type of data to reduce bias and make staff and students comfortable with completing questionnaires, and any issues around privacy, confidentiality, and anonymity. Another factor to consider is the context – when in the school day the survey takes place, the overall school environment, and other contextual factors that can bias responses. The IBO can provide guidance on whether data collection should be paper-based or electronic and how best to manage data storage, access, and disposal. Clear

communication of these considerations (including information letters and consent forms) to both students as well as to parents would be required. School wellbeing is usually measured via self-report completed during the school day (e.g., Engels et al, 2004), which means that teachers and other staff can be present for pupil data collection to provide support and guidance. It would be helpful for the IBO to produce a guidance document on collecting data in schools from staff and students and some of the ethical guidelines provided by groups such as the American Psychological Association (APA) or the British Psychological Society (BPS).

### 1.7.3 Blue-sky Thinking Around Wellbeing Measurement

One of the main challenges that schools face is what to do with data once they have collected it and schools are often limited by the statistical expertise that they have in-house or can source externally. The gold standard for schools would be a secure IBO data platform (with restricted access) where schools could input pupil ID numbers and objective school data and pupils could complete

their measures on a central system which school stakeholders could view. In an ideal world the platform would be able to take the school data and conduct all the analyses and comparisons in the ‘back-end’ of the database for them. Some examples of what could be viewed on the platform are:

- The average wellbeing across the school and in various populations within the school
- The dispersion of their wellbeing data and how many pupils are in low, medium, or high wellbeing categories.
- How their school compares locally
- How their school compares locally with other similar schools
- How their school compares at the national level
- How their school compares nationally with other similar schools
- How their school compares at the international level
- How their school compares internationally with other similar schools
- The same analyses as above by age, gender, or year group
- Which pupils/groups might require more support, targeted interventions, or specialist referrals
- How the school compares with itself term by term and year by year
- How year groups develop term by term and year by year
- Clusters of pupils who are getting significantly better or worse (and staying the same) across terms and years
- Breakdown of these data by gender, SES, age, ethnicity (for non-year group outcomes)
- The difference between school-generated control and experimental groupings
- An interpretation of other measures such as teacher wellbeing and school climate

In an ideal world, schools would also be able to input class, teacher, and timetabling data, but this is both methodologically and practically too complicated. The system would also need to highlight where there is not enough available data to make the comparisons or highlight to proceed with caution if only a small number of cases are available. Schools would also need to be encouraged to collect annual data at similar times of year. Having a full data platform would

encourage schools to collect as much data as possible to have access to all the features. Another consideration for school stakeholders is when they stop measuring wellbeing. To truly explore what works for their pupils as they progress into adulthood schools could follow-up with pupils in the following 2-5 years after they leave school, or beyond, to see how pupils from different groups fare.

In terms of the measurements, the gold standard for pupils would be pulse measurements, termly measurement (ideally a few weeks after term

starts), and yearly measurements (taking into account the effects of academic time of year).

### Measurements (Objective and Subjective)

Suggestions of measurements that could be included are listed below:

- Core measurements
- Other wellbeing measurements
- School climate and connectedness
- Objective school data – age, gender, ethnicity, year group, attendance, attainment, mental health referrals, home postcode, etc.
- Mental health measurements
- Other measurements (alcohol, drugs, nutrition, sleep, exercise, general health, religion, safety, risky behaviour, family and community aspects, extra-curricular activities, social media use, social relations, poverty /social exclusion, material resources, housing, freedom, autonomy, self-efficacy, locus of control, resilience, bullying, physical appearance, self-esteem, home environment, satisfaction with physical appearance, parental education/SES)
- Pupil assessments from parents and teachers
- Staff wellbeing
- Qualitative questions for richer detail ‘e.g., what is the thing that worries you the most about school?’
- Specific questionnaires for different ages and stages

Obviously, we wouldn’t advise that schools collect all this data. This level of data collection would be cumbersome for schools but having a data platform with this capability would allow schools to select the measures that they need in an easy and

accessible way. The platform could then also make recommendations of interventions based on the results and also identify when no further action is needed.

### 1.7.4 Linking to International Data Sets

One issue, highlighted by Ben-Arieh et al. in a presentation on the findings of the Children’s Worlds Survey (2017) is a need for collaborative effort and coalition across the various survey efforts to measure child wellbeing. Ben-Arieh et al. suggest that there often aren’t the resources to access the very large datasets that are available in the adult literature (for example, the dataset that the Gallup Organisation provide for the World Happiness Report). Improved data linking is crucial to schools, researchers, and policymakers. Schools can only do so much and using the school satisfaction KPI and overall life satisfaction to link into national and international scientific and

administrative datasets will allow comparisons and further understanding of wellbeing. If the IBO were to create a data platform, data from these international datasets could be uploaded for easy comparison for schools. In this way the IBO could become major data holders for child and adolescent wellbeing.

According to the OECD (2021) report on child wellbeing, many countries and organisations have already started collecting subjective wellbeing data (e.g., Boarini et al., 2014). Some examples are listed below.

- Children’s Worlds
- Health Behaviours of School-aged Children (HBSC)
- Programme for International Student Assessment (PISA)
- Kidscreen-52 (Ravens-Sieberer et al., 2008)
- WHO-5 (Topp et al., 2015)
- OECD’s International Early Learning and Child Well-being Study (IELS; OECD, 2020)

Goswami and Fox (2016) highlight some of the challenges with creating these large datasets on subjective wellbeing but many of the challenges they address have now been partially resolved by

the inclusion of a wellbeing specific questionnaire in the 2015 & 2018 PISA studies, which we highly recommend as a good reference point for subjective wellbeing research in adolescence.

### 1.7.5 Challenges

One crucial element is checking that the measures use the appropriate language cross-culturally. In the HBSC surveys, when translated into Italian or Japanese, some of the response options do not get selected as regularly because their meaning is unclear, vague, or an inappropriate fit for the question (PISA, 2003). In addition to linguistic challenges, another consideration is cross-cultural behavioural norms; when considering measures like affect, we must consider that there are cross-cultural differences between how each of the positive and negative emotions and their arousal levels are perceived and valued. In western cultures high arousal emotions (like excitement and annoyance) are more commonly used, whereas in eastern cultures lower arousal emotions (like calm and sad) are more commonly used (e.g., Lu & Gilmour, 2004). Rees and Main (2015) minimise these differences in the Children's Worlds surveys by calculating a relative score for each country and then calculating each child's deviation from their country's relative score.

Using the PISA items as part of the core measurements is limited by the fact that most of the satisfaction questions only have four response options, however this is a deliberate inclusive approach for young people, especially with lower reading ability. For children, it is suggested that a lower number of response options, or a sliding scale with numerical anchoring will ease respondents' burden. The order and presentation of response categories also needs to be considered so that priming effects are minimised. One advantage of having an IBO data platform is that the questions could be ordered in the most

appropriate way or randomised. Another challenge is the broad age range across this report (ages 3-19). We have chosen to include a framework (below) which can be used across the full range of IB programs but, of course, measurement differs by age. We have chosen to use questions from the PISA (usually used with adolescents) as these have the clearest response options and tie in well with adult data, but it should be noted that the overall life satisfaction (10-point-scale question) is also used by Children's Worlds and a similar item is also used by the HBSC. Both surveys also have at least one question about school satisfaction (worded as either school satisfaction or liking) but use either a 10-point-scale or a pictorial response scale (depending on the age). The IBO should consider which international datasets it would be most valuable to link to if it decides to produce a questionnaire library for different ages.

Although self-report measures for assessing children's subjective wellbeing are preferred by many researchers and psychologists (Diener, 2000; Huebner, 2002; Moore & Diener, 2019), there are often contexts where these might be challenging or unfeasible. One depends on children's ages – if surveys are not validated on appropriate age groups and their language is not made accessible to younger children, a combination of parent or teacher report measures may be used with self-report measures. A combination of self-report and parent-report measures can also be used in instances when different outcomes require different measurements. For instance, a combination of the two has been used in Durlak's meta-analysis of SEL interventions (Durlak, 2011).

### 1.7.6 Recommendations

**Recommendation #18:** The IBO should introduce a core set of wellbeing measurements to be used across its programs and schools. This should be coupled with a library of approved measures which schools can select from to expand their wellbeing assessments.

**Recommendation #19:** The IBO should consider designing a data platform which would make wellbeing assessments accessible to program leaders and school stakeholders. This could also help schools compare themselves over time and with other international assessments of wellbeing.



NEXT STEPS

Below we present a selection of next steps that the IBO can consider, many of which can be completed in parallel. We present a range of projects that span from further scoping activities to more blue-sky thinking on where the IBO could have maximum impact on wellbeing. The IBO has a clear opportunity to be pioneers in this area, leading the global discussion on child and adolescent wellbeing, and demonstrating how the unique focus of the IB philosophy on the whole child (including their subjective wellbeing) can set the IBO apart from other education providers who don't adopt this holistic approach.

### **Working Definition**

The first clear next step is a top-level working definition of wellbeing to be used across the IBO. A starting point would be using the recommended definition from the first chapter as a foundation:

*'The IBO promotes the wellbeing of all pupils. We define wellbeing as pupils being satisfied with their lives, having positive experiences and feelings, and believing that their life has purpose and meaning.'*

This definition can be expanded to encompass more aspects of the IB philosophy but must always ensure to not include the drivers within the definition. Once a clear working definition has been decided on, then the other aspects of a top-level wellbeing policy can be explored

### **Wellbeing Policy**

While schools might not be keen to have another IBO policy (see section 3.2), it is clear that a top-level policy will be needed to define the scope of wellbeing within the IBO and ensure that standards and practices are considered. It would be beneficial for the IBO to have a more comprehensive internal policy and a lighter-touch external facing policy. School stakeholders are clearly worried about the burden that another policy would add and are concerned about the expectations which would come with such a policy. A clear next step would be discussing what this outward-facing policy might include, and what would be most useful is a guiding document for schools which would support them to make their own internal wellbeing policy (or enhance any that are already in place).

### **Measurement**

Of all the elements in this report, the work on measurement is what would make the IBO stand out as a pioneer in the child and adolescent

wellbeing field. As we have highlighted in the measurement chapter (section 1.7) in this report, there is a real need for consistent, reliable, and validated measurement of wellbeing in schools, for both pupils and staff. A next step for the IBO would be to produce a set of complementary international assessment tools for different ages and stages to sit alongside the wellbeing framework, which school stakeholders can use as a toolkit or library to select appropriate measures from (in addition to the core measurements). Each measure recommended should be supported by empirical peer-reviewed evidence, be psychometrically robust, reliable, and valid for use with the intended population, sensitive to age and stage, and could be reasonably used to compare across populations. Ideally this will be coupled with an IB measurement platform which schools can input their data (see 'blue-sky thinking on measurement' below). The IBO has a unique opportunity (given its large population of students) to support schools to gather their own data on wellbeing and to link this with international wellbeing datasets. This would benefit the schools, the IBO, and could be used as a public good (always ensuring anonymity of individuals and schools). The IBO could use this data to publish their own child and adolescent world happiness report, as a companion to the World Happiness Report (which has had over 9.5million million unique views in the last two years). Obviously, this is highly ambitious and would be a longer-term rather than an immediate goal. In the short-term, the immediate next steps would be scoping and piloting measurement tools in some of the areas of the framework. As highlighted above, issues like reliability, validity, cross-cultural applicability, ages and stage variability, and accessibility will need to be explored. In tandem, scoping how these pilot measures could be used on a data platform which conducts statistical analyses in the "back-end" and links with other datasets would be highly informative, and would provide insights as to how feasible it would be to have the gold standard of measurement.

### **Intervention**

In parallel with measurement, there will also need to be piloting work on intervention. It is recommended that one or two areas of the framework are selected first, and a scoping activity is conducted to explore which interventions exist already that are effective and whether these could be modified for (or dropped into) the IB curricula. When interventions have been identified, they will need to be tested and measured in schools, firstly

with pre- and post- studies and ideally with RCTs in the long run. Any interventions will also need to be tested to ensure they meet the needs of diverse populations of students, including pupils who have specific needs or disabilities. This evidence-based approach will ensure that the IBO offers schools a gold-standard toolkit for wellbeing. Naturally, as the research progresses, the wellbeing framework might adapt and it might be the case that the IBO chooses to focus on a smaller number of areas of the framework that have strong evidence, measurement tools, and interventions. In this way, the IBO wellbeing toolkit would be scalable, and the IBO will not need to wait for robust measurement and interventions in all the framework areas to begin using materials in its curricula. In addition, it would be advantageous to being piloting work for teacher training and wellbeing (see below), and for resources to use with parents.

### *Deep Dive into IBO Resources*

It is also recommended that the IBO team do a deep dive with the support of wellbeing researchers into ways in which the existing IB documentation (standards and practices, policies, professional development, etc.) can be enhanced by the information in this report, intervening at the

top level. Stellar work that the IBO is already conducting in the wellbeing area can be enhanced by insights from this report, which should help to identify areas that can be easily targeted for improvement. There will be some areas, such as professional development, where the IBO can easily create resources that can be used in schools which will support the overall wellbeing of staff and pupils in the more immediate term, before work on measurement and intervention is complete. Coupled with this, the IBO could explore WSAs to examine if there are recommendations which can be made to schools to support them with their pupil and staff wellbeing.

### *Teacher Wellbeing*

The scoping report highlights how important teacher wellbeing is, and one clear next step is a project focused on how the IBO can support teaching staff in their own wellbeing. The first step would be a more detailed report on teacher wellbeing globally, crucially including research on measurement and intervention. This work can utilise the vast amount of academic literature in the adult wellbeing sphere but will need adjustments given the uniqueness of the teaching profession.





# WELLBEING REFERENCE FRAMEWORK

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FRAMEWORK

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# WELLBEING FRAMEWORK

**The proposed wellbeing framework is intended as a broad overview of factors that are likely involved in wellbeing in schools internationally.** The elements that are included were identified as promising areas for influencing wellbeing in the scoping review.

Due to the large inter- and intra-cultural differences which have been identified in the literature review, **the framework is a top-level overview of factors that could inform interventions in schools and across the IB programs.** The framework is largely evidence based but there are areas that require further research or omissions where it is challenging to conduct the type of robust research required (e.g., RCTs).

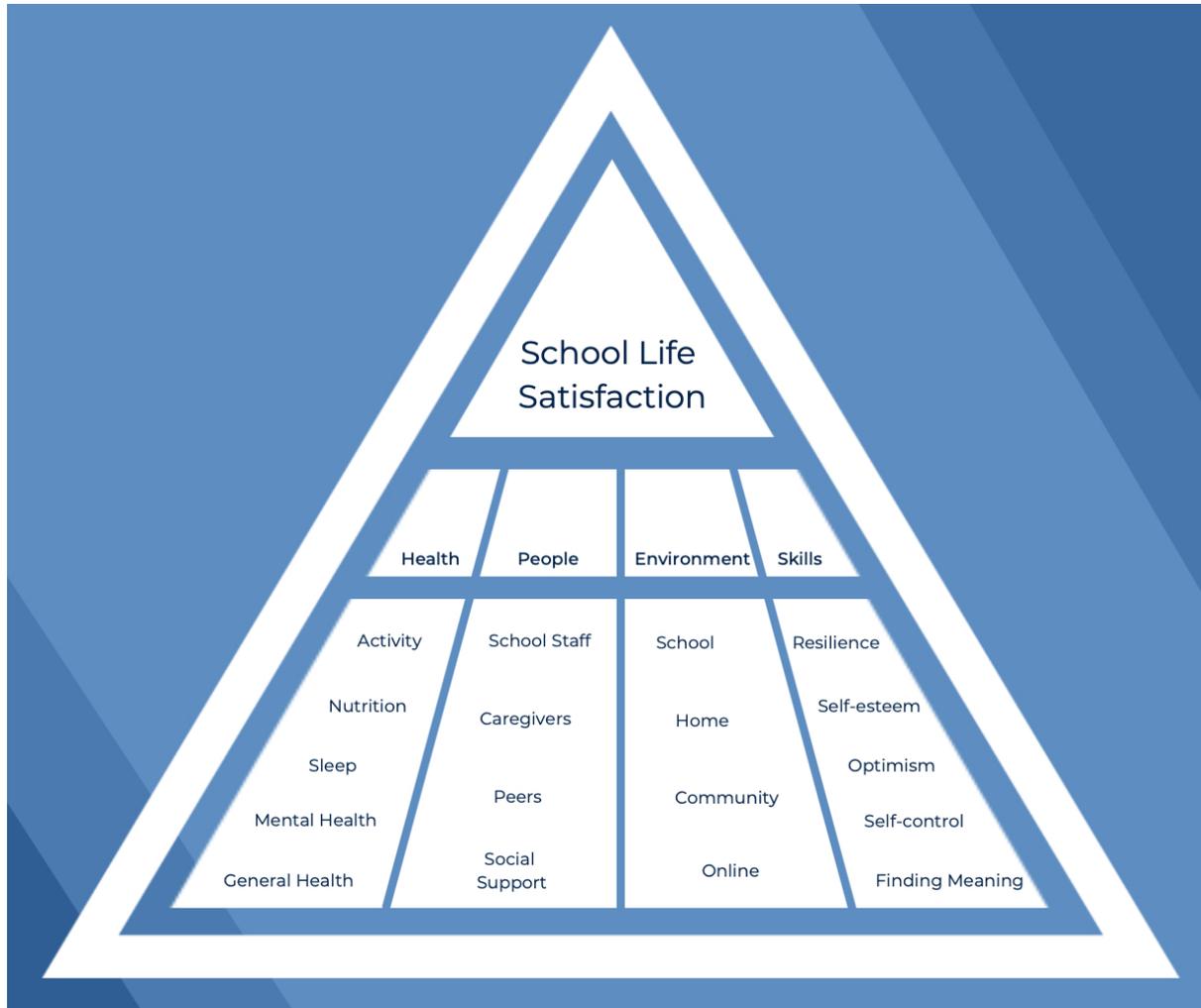
This framework is not intended as a comprehensive framework for the whole of child wellbeing, as schools and programs can only practically influence some aspects of child and adolescent wellbeing.

**The framework is intended as a guide for school stakeholders to explore variables that might be of interest at the program and whole-school level,** and schools should be able to pick and choose which areas are appropriate to target for their population. For a comprehensive overview of all aspects of child wellbeing, we recommend the OECDs Aspirational Child Well-being Measurement Framework (OECD, 2021). In addition to the Wellbeing Reference Framework, we have also included a set of principles to consider which complement the framework.



## The Wellbeing Framework

The framework is intended to cover all ages and stages, but depending on the individual pupil and the context, each of these drivers may be more or less influential on school life satisfaction, some being more powerful than others. Therefore, the framework has no set hierarchy and is presented within four themes (health, people, environment, and skills) to enhance readability and comprehension.



### 2.1.1 Health

#### Activity

Physical activities (such as exercise, sport, physical movement, walking to school, and any extra-curricular physical activities) are beneficial for wellbeing as a driver but also impact on other drivers such as mental health.

#### Nutrition

Eating a balanced diet (as defined by the WHO) and, where possible, maintaining a healthy weight, has positive outcomes that are indirectly (and likely directly) related to wellbeing.

#### Sleep

Getting the recommended age-appropriate amount of sleep each evening is associated with higher wellbeing. Making sure that sleep is consistently sufficient each night and not relying on catch-up nights to compensate for poor sleep quality.

### Mental Health

Being able to function well and cope with the normal stresses of life is beneficial for wellbeing, as is preventing or alleviating, where possible, mental illness and negative affect (e.g., depression, anxiety, stress, disorders, etc).

### General Health

Avoiding, preventing, or alleviating, physical illness (e.g., avoiding or preventing taking drugs, imbibing alcohol, and participating in risky activity) and promoting healthy behaviours (such as oral health, sexual health in late adolescence, and forming healthy behaviour patterns for adulthood) are linked with higher wellbeing. Also, access to the basic physical necessities to function and avoid ill health is important (food, clothing, shelter, sanitary products, hygiene products, etc.).

## 2.1.2 People

The 'People' area of the framework covers relationships and interactions with adults, and other children and adolescents. A key factor across this theme is social skills which are needed to effectively communicate with others inside and outside the school setting, and to minimise the likelihood of other negative outcomes such as bullying and loneliness.

### School Staff

Including teachers and any other adults within the school (admin staff, coaches, boarding house staff, catering staff, maintenance staff, external providers who come into the school, etc.). Wellbeing can be enhanced by building trusting and respectful relationships between these adults and young people. Any wellbeing strategy should fit in with other policies (such as safeguarding policies) which already aim to mitigate negative outcomes.

### Caregivers

Involving any adults who care for the child outside the school setting (parents, carers, grandparents, extended family) in interventions so they can understand how to best support their children and build healthy, supportive, and respectful relationships with them at each age and stage. Of particular importance is the child-parent relationship.

### Peers

The peer relationship is incredibly important at school and this area looks to maximise opportunities for peers to interact in a supportive manner and cooperate rather than individually compete.

### Social Support

Building social support amongst peers, families, and school communities helps to promote inclusion and protect against negative experiences such as adversity, bullying, loneliness, and discrimination. Being a victim or perpetrator of bullying is detrimental for wellbeing.

## 2.1.3 Environment

In this section we have included the immediate environments of the child.

### School

The school environment is incredibly important in the life of the child. Particularly, school climate and connectedness, which are key indicators of the school environment and how engaged with it pupils and staff are. Naturally, the school environment does not exist in isolation; it overlaps and interacts with many of the other drivers in the framework (particularly with the 'People' aspects), and of particular importance is the young person's relationships with teachers and peers.

### *School Climate*

School climate includes factors such as attitudes towards the school (overall school-life and the organisation/buildings), teachers, peers, safety, and security. A negative school climate is associated with increased behavioural problems whereas a better school climate enhances school performance, especially for pupils from low SES backgrounds. School climate may influence pupil wellbeing indirectly by improving other factors that are important for young people's wellbeing, for example, the teachers' availability to build respectful relationships with pupils might be facilitated by a school climate that values these relationships and makes time in the school day (such as registration, home room, or form time) to nurture them. Research has shown an association between positive school climate and (self-reported) health and wellbeing, more positive responses to the demands of school life, lower perceived stress and higher academic achievement. Feeling safe at school is also a crucial factor which should be considered and is often underestimated by adults.

### *Belonging*

There is a strong relationship between wellbeing and feeling of belonging at school and a weaker relationship is also present between belonging and academic attainment. Belonging can be enhanced through the school climate; ensuring that pupils feel that their school is the right fit for them. Feelings of belonging are also likely to be linked to other drivers of wellbeing such as interactions with peers.

### *School Connectedness*

School connectedness is an important influencer in the relationships between several school climate measures (friction among students; student cohesion; student competition) and risk behaviours (conduct problems) and also has a relationship with mental health. How connected young people feel to the school (how respected, supported, and valued they feel) is likely linked to many other areas of wellbeing and is a key element when considering WSAs or universal interventions.

### *Classroom*

The classroom is an important place for young people to foster relationships which are important for their wellbeing. This is aided by cooperative teaching styles where young people have the opportunity to work together rather than compete. A cooperative style, and a competing-teams environment, have positive outcomes in the classroom, including academic achievement. How teachers engage with pupils inside and outside the classroom has an impact on the young people's wellbeing.

## **Home**

The drivers related to home life largely revolve around family factors such as family communication, family health, and stress. Perceived poverty (whether a child perceives themselves as having more, less, or about the same as others), a safe place to study, material deprivation, household resources, and caregivers showing interest in the young person, are important. The setting of the home itself is also important, with factors such as access to green space, and safety, being important to young people.

## **Community**

The community is the network of people outside of the school and family who are in the immediate surrounding environment of the child, in addition to the physical environment. The community can be impacted by government-level policies and some of the drivers at the community level are factors such as growing up in a safe neighbourhood, strong social ties, high-quality childcare, and green spaces. Neighbourhood deprivation is a driver of illbeing and can be especially important as children spend more time outside of the home with their friends during adolescence.

## **Online**

The time spent online (predominantly using social media or gaming) can have an impact on wellbeing. Wellbeing can be improved by reducing excessive usage and promoting positive use (such as support

seeking and positive feedback), and discouraging or mitigating negative use (high investment, passive use, negative feedback, and ostracism).

#### 2.1.4 Skills

##### Resilience

The ability to adapt to changing environments or ‘bounce back’ is important for health, attainment, and later job prospects, and is considered a key part of mental wellbeing.

##### Self-esteem

How the young person feels about themselves is an important driver of their wellbeing. A child with high self-esteem will have a positive image of themselves, feel confident, make friends easily, and can try, fail, and admit mistakes. An important area linked to self-esteem is body image (particularly for girls).

##### Optimism

Optimism, or looking at things with a more positive outlook (moving away from helplessness and pessimism) is important to a young person’s wellbeing. Within optimism, growth-mindset, the belief that intelligence is malleable (rather than fixed), also shows promise. These are two overlapping areas which both look at the positive aspects of a situation and re-frame failure as a learning opportunity.

##### Self-Control

The ability of a young person to regulate or control their behaviour and emotions (emotion regulation) is related to wellbeing and an array of positive outcomes which persist into adulthood (physical health, lower substance dependence, better personal finances, and lower criminal-offending).

##### Finding Meaning

Finding a direction in life that has meaning and purpose is important to young people and is associated with higher wellbeing (in adolescence). This area could also include elements of religion and spirituality (as the research in this area advances).

PRINCIPLES

# PRINCIPLES



The set of principles below highlight some important factors that the IBO and school stakeholders should consider when designing their wellbeing strategy.

**EASY TO IMPLEMENT** It is crucial to pick interventions that will most easily fit into the setting where they are to be implemented; the harder the program is to implement the less successful it is likely to be.

**STUDENT VOICE** Perspectives of pupils are a crucial element. Interventions, where possible, must be responsive to the perceived needs of the students.

**LEVEL OF EXPERTISE** External experts may be more effective for the initial set-up of an intervention than in-house staff, but in-house staff are crucial for the intervention to thrive and become embedded.

**COMMUNITY OWNERSHIP** All school stakeholders should be involved in intervention decision-making. Stakeholders at all levels (including parents, pupils, staff, etc.) should be included in the process, and informed of the rationale for any intervention, along with the specific goals of the program.

**INTERVENTIONS MUST BE DIRECT AND SPECIFIC** This is crucial for positive outcomes.

**POLICY AND GUIDANCE** Programs implemented should have clear guidelines (or be manualised) and staff should know which areas they are individually responsible for.

**IMPLEMENTATION FIDELITY IS KEY** Ensuring that the program is delivered as intended with the prescribed dosage (number of sessions, duration, content, etc.) with some flexibility to make the intervention fit-for-purpose in the specific educational setting.

**WHOLE SCHOOL AND TARGETED INTERVENTIONS CAN BE EFFECTIVE** More holistic approaches are often more successful than programs taught as one isolated unit.

**SOUND THEORETICAL BASE** Interventions should be selected that have a sound theoretical base. Those delivering the intervention should ensure that these elements are taught, and not lost through adaptation.



# EXTERNAL STAKEHOLDER INSIGHTS

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# OVERVIEW

A small sample of Headteachers across IB schools internationally were approached to give feedback on a brief report about the findings of the scoping review and the proposed Wellbeing Framework. Sixty schools who deliver the breadth of IB curricula across English, French, and Spanish speaking nations were initially approached. The report and questionnaire were translated from English into French and Spanish, and responses in French and Spanish were then translated back into English for analysis. Sixteen schools expressed interest and responded to the questionnaire. School stakeholders were asked to read the overview document and respond to the questions below (response options are given in brackets). The questionnaire had a mixture of closed and open questions, and most questions also had a free response option for qualitative responses.

### *Demographics*

Nine schools were English speaking, four were French speaking, and three were Spanish speaking. Three schools were from the Africa, Europe, and the Middle East (IBAEM) region, ten schools were from the Americas (IBA) region, and three were from the Asia-Pacific (IBAP) region. Seven were authorised in the Primary Years Program, six were authorised in the Middle Years Program (and another awaiting authorisation), two schools were authorised to teach the Career-related Program, and seven were authorised in the Diploma Program. Nine were state schools and seven were private schools. One school had an academic start month of January, one in March, and one in July. Ten had academic start months in August and three in September.

## Questions

### *Wellbeing In Your Context*

Do you currently have a written wellbeing policy in your school? (Yes/No/Free Response)

Do you have a member of your Senior Leadership Team dedicated to wellbeing? (Yes/No/Free Response)

Do you have in place any other school policy that covers wellbeing aspects? (Yes/No/Free Response)

Are you already considering wellbeing interventions/programs in your school? (Yes/No/Free Response)

### *The Framework*

What are your initial impressions of the items in the framework? (Free Response)

Which of these areas do you already have written school policies about? (Multiple choice)

Has your school already implemented interventions in any of these areas? (Multiple choice / Free Response)

What would be the easiest area for your school to implement changes with guidance (Free Response)?

What would be some of the barriers to implementing interventions in these areas in your school (Free Response)?

### *External Support*

Do you feel your school needs more external support to enable you to improve the wellbeing of your pupils? (Yes/No/Free Response)

Would you be interested in reading the full report when it is released? (Yes/No/Maybe)

Any further comments? (Free Response)

# FINDINGS

The findings from the questionnaire were encouraging and showed that most schools are interested in wellbeing and are considering, or already taking, action to improve wellbeing in their school. Importantly, most school stakeholders

responded positively to the wellbeing framework and thought they would be easily able to implement changes in most of the areas proposed in the framework.

### Wellbeing Policies

Results showed that only 25% of schools had a written wellbeing policy in their schools, although 69% of respondents indicated that they had another school policy that covered wellbeing aspects, and 56% of respondents indicated that their school has a member of the SLT dedicated to wellbeing. School policies which featured wellbeing elements were identified as: child protection policies; health and safety policies; behaviour policies; anti-bullying protocols; “Code of Life” policy; rules and procedures policies, and psychological and life counselling services. One stakeholder suggested that while they had inclusion and belonging policies at the school, they had “not actually come to terms with what wellbeing is”, suggesting that there is a lack of clarity on the definition of, and what might contribute to, wellbeing. One respondent was adamant that this framework not become “yet another demand for a written policy with no real action behind”.

These results highlight that some schools either do not feel a need for a specific wellbeing policy, possibly do not have the resources to put a

wellbeing policy in place, or do not have a working definition of wellbeing with which to structure a policy. The wellbeing definitions given in the full scoping report would give the IBO and school stakeholders clarity and maximum flexibility to design a policy that is fit for purpose in their individual setting and, crucially, give them the tools and guidance on how to measure wellbeing. It seems that schools are keen to not have policies with no substance or action. This scoping report goes beyond policy recommendations and is the first stage in the process of improving student wellbeing. More comprehensive projects on measurement and intervention will need to follow to ensure that the IBO are thought leaders in this area (see section 1.8). The follow-up stages will ensure that this does not become a top-down wellbeing policy alone, but can also be used as a foundation for researching and testing reliable and actionable practices and measurement tool that can be used in schools. The end goal is to present a whole new perspective on wellbeing, giving schools a flexible evidence-based toolkit, which can be adapted to the needs in their school setting.

### Wellbeing Interventions

Encouragingly, most respondents (88%) indicated that they were already considering wellbeing interventions. Those who were not planning on implementing wellbeing interventions or programs did not specify further about their current wellbeing interventions. The respondents who commented further on their current wellbeing interventions and programs suggested that the type and scale of interventions varied considerably. One respondent indicated that when staff had offered wellbeing classes, these were not taken up by the school community. In contrast, other respondents pointed to more expansive wellbeing interventions as part of a broader agenda. These included a Resiliency Project, Integral Formation classes for wellbeing development, pre-diploma program wellbeing materials, parent involvement programs, and restorative practices (for staff wellbeing in particular), amongst others. One respondent pointed to collaboration with the IBO as an important aspect of their wellbeing resources

and support. The need for flexible and context-specific interventions was also emphasised in three different responses (e.g., “Ensure that the [program] is delivered as intended with some flexibility to make the intervention fit-for-purpose in the specific educational setting”). One stakeholder indicated particular concern for wellbeing of teachers above and beyond that of students.

These responses suggest that schools are conducting their own wellbeing interventions, with varying interest from staff and pupils. Stakeholders did not report on the efficacy of these programs and only one school stakeholder mentioned measurement as an aspect of their wellbeing interventions. The scoping report highlights how important it is to have a community-focused, bottom-up approach when selecting areas which require improvement and deciding which interventions are appropriate. In this way, the staff

and pupils take ownership of the implementation of any interventions, and they are more likely to succeed, rather than a top-down approach from their Headteacher or SLT alone. The toolkit of the wellbeing framework and wellbeing resources across staff, students, and at the school level, recommended in this report, would support schools to run evidence-based interventions. The toolkit should include guidance on (or ideally include a platform for) measurement which would allow schools to see the efficacy of the

interventions they select and which populations they are successful and unsuccessful for. In this way, schools can use a bottom-up approach to identify issues, and then use the wellbeing framework and toolkit to select and implement appropriate interventions. This approach fits in with any existing wellbeing, mental health, and health initiatives that the school already employs, and still allows space for targeted interventions or referrals for groups or individuals who need them.

### Framework Feedback

Feedback on the framework was generally positive and, encouragingly, many schools seem to be implementing policies in the areas mentioned in the framework. The quotes below display the respondents' initial perceptions of the framework

(one participant did not respond, and one response was omitted as they had responded in detail about interventions in their school rather than their perceptions of the framework).

"Be careful it does not become yet another demand for a written policy - with no real action behind. Policies do not make good schools. The framework itself is great - but leave it to schools to implement in a way which is appropriate in their context (not another written policy, please)"

"It seems correct and of great importance. Schools are definitely essential to ensure and support the wellbeing of children and youth."

"We are already dealing with a lot of elements present in the framework. The elements are well chosen and directly in line with the concerns that we have. However, I am always concerned about the level of accountability that comes with this type of framework."

"I love the idea of targeting Wellbeing into the IB framework. It connects to the MDI data that is collected in BC."

"Elements chosen are relevant. We are currently considering setting up "internet free zones / time slots" to prevent students from staying on their laptop / tablet all the time."

"Interesting"

"These are all items that we already discuss within our academic program but also within our Guidance classes conducted by our Counsellor."

"It is good, no comment"

"Exceedingly complete and useful"

"The proposal is very important"

"The focus on 'school life satisfaction' makes sense. We are wondering about replacing 'people' with 'relationships'. We can see that this model can be applied to all school settings. The definitions provided for the areas in the framework are easy to interpret with the use of accessible language."\*

"This is a good starting point. However, the IB has no safeguarding policy requirement in its evaluations; and this document continues the blindspot. I believe an explanation is needed for the relationship between student wellbeing and safeguarding on campus as well as off-site. The LP only focuses on one

value regarding people as gregarious - caring. ATIs and CAS leverage this idea more and this document could make some reference to this - an anti-loneliness initiative. Living with ambiguity is an area that is not mentioned in the document either. Neither is using pressure to excel academically and being able to handle it well. Systems thinking goes some way to de-personalising what we experience on a day-to-day basis and will help children come to terms better with finding meaning in the world. Finally distinctions could be made between the different wellbeing and safety priorities between day schools and boarding schools.”\*\*

“My initial impression was that there is no new information in this document. These are all pieces of the PSPE curriculum that we already address.”

“It is very broken down. Well-articulated”

\* ‘People’ was chosen rather than ‘Relationships’ because sometimes a person may influence a young person’s wellbeing without having a direct two-way relationship with them.

\*\* Several of these areas are mentioned in the full report but not in the summary document

### Existing Policies and Interventions in Framework Areas

As expected, many of the schools already had policies across some of the areas of the framework. Five respondents mentioned policy alignments with the framework, pointing to areas including: health, digital life, skills, resilience, people, emotional regulation, growth mindset, evaluation, and admission policies. Health was the most frequently mentioned—both physical (e.g., exercise and nutrition) and psychological (through counselling, stress, and anxiety management). Emotional attitude and behaviour were also recurring themes (emotional regulation, emotional intelligence, growth mindset, resilience, self-esteem, meaning),

as were abilities and skills. People and environment (in every response they were listed together) were mentioned by five participants. One respondent mentioned collaboration-based learning, connection with teachers, and access to school leadership as examples of programs being implemented. However, eight schools mentioned that they do not have specific written policies about areas in the framework, but each mentioned how wellbeing is built into their schools in different ways. Only one school mentioned measuring wellbeing as part of their interventions.

### Ease of Implementation and Barriers

When assessing how easy it would be to implement changes across the different elements of the framework, three respondents suggested that they are flexible and open to improvements in all areas of the framework. Two respondents stated that they were already in line with the framework. One respondent indicated that “we are capable of influencing the vast majority of these domains. Perhaps most difficult are the external factors like the family”, and another that, “It would be possible in all of them since the institution has a lot of flexibility in this area”. Respondents either indicated that they were already intervening, or it would be easy to do so, particularly in areas like growth mindset.

The main barriers identified were in relation to parent involvement and guidance and the challenge of implementing new interventions

(complexity of the interventions, staffing fitting in with existing programs and exams, crowded curricula, cultural differences). The lack of staff, and the need for teacher training were also mentioned. The barriers that students themselves pose were mentioned twice, with one respondent expanding on this answer pointing to disengagement, absenteeism, isolation, and alienation as risk factors. A further point of concern was the danger of written policies with no action and the level of accountability that comes with this type of framework. The responder suggested that schools should be left to implement the framework in whatever way is appropriate to their context. Only one respondent suggested that there would be no obstacles. In terms of external support, most school stakeholders indicated that they would encourage more training for teachers who have

different levels of expertise with regards to wellbeing.

The barriers mentioned here by schools should be explored further in the next steps of this project; while the IBO can do little to influence factors like lack of staff, and absenteeism, there are clear areas where schools can be supported, including teacher training, and allowing schools to use the framework flexibly (which is already the approach recommended in this report). We know that, given the importance of the pupil-teacher relationship for wellbeing, teacher training (and professional development) is a crucial element in improving wellbeing for pupils and staff. Unlike interventions which are only designed to drop into elements of the curriculum, this report suggests that there are general wellbeing strategies that can be used to improve the wellbeing of all pupils and are not onerous on teachers. For example, an understanding that collaboration and collaborative competition (in groups) can be beneficial, is knowledge that any teacher can use to foster greater wellbeing in any lesson without changing the content of their teaching. In addition, some teacher training on how their own wellbeing affects their pupils and the degree of influence that they have on their pupils' wellbeing could be transformative, along with appropriate and effective evidence-based strategies to support teachers' own wellbeing.

When asked if they would like more support to improve wellbeing in their schools 56% responded 'yes' and 44% responded 'no' (most of those who said no, did not expand on their answer). Of those who replied yes, several mentioned the need for additional teacher training and orientation on wellbeing and mental health, as well as professional development (i.e., "awareness on health, nutrition and other psychological and emotional issues"). Support for parents was also mentioned.

Over half of schools want support with wellbeing in their schools and they indicate that they would like support with addressing it with pupils, staff, and parents. It seems that schools might be initially hesitant to adopt another policy or framework as they are worried about the accountability that comes with it. An interesting next step would be asking stakeholder whether they would find a toolkit of resources, in the areas suggested by the wellbeing framework, useful. Anecdotally, we know that many schools are struggling to find high-quality resources to support students with their wellbeing and any efforts by the IBO to make the process of supporting students' wellbeing easier would likely be welcomed by schools as long as they don't perceive it as a way of being held to account in an area that could be challenging for them. When asked about any general comments, stakeholders were encouraging about the IBO addressing wellbeing in schools with a new framework:

*"The onset of COVID-19 has had a dramatic effect on the mental health of the school community. It is vital that schools implement interventions to support both students and staff. The development of this framework is very timely."*

*"It is now the main focus of the school and we would like to have a clear guidance how to ensure we are moving in the right way."*

### Cross-cultural Differences

Given the small sample size, there were no obvious cross-cultural differences in responses which were identified but this will be an interesting area to explore in terms of intervention and measurement. The wellbeing framework presented is appropriate

for use cross-culturally but we will need to ensure that any resources that are created are sensitive to any cultural differences across the IBO school population.

### Summary

There was a generally positive response to the report (75% of respondents would like to read the

report with the remaining 25% responding "maybe"). Most respondents were receptive and open to the idea of addressing wellbeing in schools,

some stating its importance and the need for guidance and action on the matter. Encouragingly, there was no debate around any of the areas presented in the framework, and most of the challenges identified were around policy implementation. This suggests that if IBO schools were presented with this framework there would be very little resistance to the content. It is noteworthy that respondents only had access to a brief summary of the framework, without the corresponding full scoping review: this has a level of depth and breadth on definitions and measurement which could not be captured in the summary document. This level of academic information on definition and measurement of subjective wellbeing would be likely be novel to most school stakeholders and could add value to their management of wellbeing in their contexts. Only one school stakeholder commented on school life satisfaction as the apex of the wellbeing framework, which suggests this is a natural fit for schools and something that stakeholders would expect to see as the ultimate goal and would be comfortable working towards.

It should be highlighted that the framework alone will do very little for pupil wellbeing without the

appropriate tools to accompany it. As a school stakeholder identified in their response, there is nothing new in the framework to those of us who work in the field of child and adolescent wellbeing—from both a teaching and academic perspective. The novelty of the approach which is suggested in this report is the focus on subjective wellbeing, with the ultimate goal of school life satisfaction, paired with an evidence-based toolkit and comprehensive measurement strategy. The approach is entirely flexible and practical, while attempting to place the lightest burden on schools as possible. A key aim of this stream of work on wellbeing (including this scoping report) is to suggest strategies that will allow school stakeholders feel empowered and supported, and have access to the very best evidence of how to define, measure, and implement wellbeing changes in their context. The beauty of this approach is that not only is it practical and flexible for all school contexts but also, as the wellbeing research advances, the framework and definitions of wellbeing remain relevant and flexible to new additions. Following this strategy would make the IBO pioneers and thought leaders in wellbeing in education and if successful, improve the wellbeing of pupils and teachers internationally.



# REFERENCES & SUPPLEMENTARY MATERIALS

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# REFERENCES

- Adams-Ojugbele, R., & Mashiya, N. (2020). Interventions supporting the integration of refugee children in the primary school life: Roles of the child's contexts of development. *The Journal for Transdisciplinary Research in Southern Africa*, 16(1), 1-7. <https://doi.org/10.4102/td.v16i1.769>
- Adi, Y., Killoran, A., Janmohamed, K., & Stewart-Brown, S. (2007). Systematic review of the effectiveness of interventions to promote mental wellbeing in children in primary education. Report 1: Universal approaches: non-violence related outcomes. Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews. <https://www.ncbi.nlm.nih.gov/books/NBK73674/>
- Adler, A. (2017). Well-being and academic achievement: towards a new evidence-based educational paradigm. In *Future Directions in Well-being: Education, organizations and policy (203-208)*. Cham, Switzerland: Springer.
- AEDI (2009). Australian Early Development Index 2009. <https://meteor.aihw.gov.au/content/index.phtml/itemId/496433>
- Al Omari, O., Al Sabei, S., Al Rawajfah, O., Abu Sharour, L., Aljohani, K., Alomari, K., Shkman, L., Al Dameery, K., Saifan, A., Al Zubidi, B., Anwar, S., & Alhalaiqa, F. (2020). Prevalence and Predictors of Depression, Anxiety, and Stress among Youth at the Time of COVID-19: An Online Cross-Sectional Multicountry Study. *Depression Research and Treatment*, 2020, 8887727. <https://doi.org/10.1155/2020/8887727>
- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217-237. <https://doi.org/10.1016/j.cpr.2009.11.004>
- Aldridge, J. M., & McChesney, K. (2018). The relationships between school climate and adolescent mental health and wellbeing: A systematic literature review. *International Journal of Educational Research*, 88, 121-145. <https://doi.org/10.1016/j.ijer.2018.01.012>
- Aldridge, J. M., Fraser, B. J., Fozdar, F., Ala'i, K., Earnest, J., & Afari, E. (2016). Students' perceptions of school climate as determinants of wellbeing, resilience and identity. *Improving Schools*, 19(1), 5-26.
- Alemán-Díaz, A. Y., Backhaus, S., Siebers, L. L., Chukwujama, O., Fenski, F., Henking, C. N., . . . Weber, M. W. (2018). Child and adolescent health in Europe: monitoring implementation of policies and provision of services. *The Lancet Child & Adolescent Health*, 2(12), 891-904. doi:[https://doi.org/10.1016/S2352-4642\(18\)30286-4](https://doi.org/10.1016/S2352-4642(18)30286-4)
- Alisic, E. (2012). Teachers' perspectives on providing support to children after trauma: A qualitative study. *School Psychology Quarterly*, 27(1), 51. <https://doi.org/10.1037/a0028590>
- Allen, M. (2014). Local action on health inequalities: Building children and young people's resilience in schools. *Health Equity Evidence Review 2*. Institute of Health Equity, PHE. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/355770/Briefing2\\_Resilience\\_in\\_schools\\_health\\_inequalities.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/355770/Briefing2_Resilience_in_schools_health_inequalities.pdf)
- Allen, R., Jerrim, J., & Sims, S. (2020). How did the early stages of the COVID-19 pandemic affect teacher wellbeing? (CEPEO Working Paper No. 20-15). Centre for Education Policy and Equalising Opportunities, UCL. <https://EconPapers.repec.org/RePEc:ucl:cepeow:20-15>
- Almond, D., J. Currie and V. Duque (2018), "Childhood Circumstances and Adult Outcomes: Act II", *Journal of Economic Literature*, 56(4), 1360-1446, <http://dx.doi.org/10.1257/jel.20171164>.
- Alpert, M., & Rosen, A. (1990). A semantic analysis of the various ways that the terms "affect," "emotion," and "mood" are used. *Journal of Communication Disorders*, 23(4-5), 237-246. [https://doi.org/10.1016/0021-9924\(90\)90002-G](https://doi.org/10.1016/0021-9924(90)90002-G).
- American Psychiatric Association. (2013). Anxiety disorders. In *Diagnostic and statistical manual of mental disorders (5th ed.)*.
- Ames, M. E., Rawana, J. S., Gentile, P., & Morgan, A. S. (2015). The protective role of optimism and self-esteem on depressive symptom pathways among Canadian Aboriginal youth. *Journal of Youth and Adolescence*, 44(1), 142-154. <https://doi.org/10.1007/s10964-013-0016-4>
- Andermo, S., Hallgren, M., Jonsson, S., Petersen, S., Friberg, M., Romqvist, A., ... & Elinder, L. S. (2020). School-related physical activity interventions and mental health among children: a systematic review and meta-analysis. *Sports medicine-open*, 6(1), 1-27. <https://doi.org/10.1186/s40798-020-00254-x>
- Andresen, S. (2014). Childhood vulnerability: Systematic, structural, and individual dimensions. *Child Indicators Research*, 7(4), 699-713. <https://doi.org/10.1007/s12187-014-9248-4>
- Andresen, S., Bradshaw, J. & Kosher, H. (2019). Young Children's Perceptions of their Lives and Well-Being. *Child Indicators Research*, 12(1), 1-7. DOI: 10.1007/s12187-018-9551-6
- Andrews, F. M. and Withey, S. B.: 1974, 'Developing Measures of Perceived Life Quality: Results from Several National Surveys, *Social Indicators Research*, 1, 1-26.
- Ansari, H., Khamarnia, M., Okati, H. et al. (2018). The role of optimism in predicting tobacco smoking and illicit drug use among high school students in southeast of

- Iran, 2018. *Health Scope*, 8(2). <https://doi.org/10.5812/jhealthscope.89282>.
- Arain, M., Haque, M., Johal, L., Mathur, P., Nel, W., Rais, A., ... & Sharma, S. (2013). Maturation of the adolescent brain. *Neuropsychiatric disease and treatment*, 9, 449.
- Arango, A., Cole-Lewis, Y., Lindsay, R., Yeguez, C. E., Clark, M., & King, C. (2018). The protective role of connectedness on depression and suicidal ideation among bully victimized youth. *Journal of Clinical Child & Adolescent Psychology* 48 (5): 728-739. <https://doi.org/10.1080/15374416.2018.1443456>
- Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *Journal of Adolescence*, 32(3), 651-670. <https://doi.org/10.1016/j.adolescence.2008.06.007>
- Argyle, M. (2001). *The psychology of happiness*. Routledge: New York.
- Arslan, G., & Allen, K. A. (2020). Complete mental health in elementary school children: Understanding youth school functioning and adjustment. *Current Psychology*, 1-10.
- Arslan, G., & Allen, K. A. (2020). Complete mental health in elementary school children: Understanding youth school functioning and adjustment. *Current Psychology*, 1-10.
- Arslan, G., Yildirim, M., Karataş, Z., Kabasakal, Z., & Kılınc, M. (2020). Meaningful living to promote complete mental health among university students in the context of the COVID-19 pandemic. *International Journal of Mental Health and Addiction*, 1-13.
- Backes, E. P., Bonnie, R. J., & National Academies of Sciences, Engineering, and Medicine. (2019). *Adolescent Development*. In *The Promise of Adolescence: Realizing Opportunity for All Youth*. National Academies Press (US).
- Baker, J. A., Dilly, L. J., Aupperlee, J. L., & Patil, S. A. (2003). The developmental context of school satisfaction: Schools as psychologically healthy environments. *School Psychology Quarterly*, 18(2), 206. <https://doi.org/10.1521/scpq.18.2.206.21861>
- Baldry, A. & Farrington, D. (2004). Evaluation of an intervention programme for the reduction of bullying. *Aggressive Behaviour*, 30, 1-5. <https://doi.org/10.1002/ab.20000>
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barker, E. T., & Galambos, N. L. (2003). Body dissatisfaction of adolescent girls and boys: Risk and resource factors. *The Journal of Early Adolescence*, 23(2), 141-165. <https://doi.org/10.1177/0272431603023002002>
- Barrett, P. M., Farrell, L. J., Ollendick, T. H., & Dadds, M. (2006). Long term outcomes of an Australian Universal Prevention Trail of Anxiety and Depression Symptoms in Children and Youth: an evaluation of the Friends program. *Journal of Clinical and Adolescent Psychology*, 35(3), 403-411. [https://doi.org/10.1207/s15374424jccp3503\\_5](https://doi.org/10.1207/s15374424jccp3503_5)
- Bartels, M. (2015). Genetics of wellbeing and its components satisfaction with life, happiness, and quality of life: A review and meta-analysis of heritability studies. *Behavior Genetics*, 45(2), 137-156. <https://doi.org/10.1007/s10519-015-9713-y>
- Bartlett, S. (2002). Building Better Cities with Children and Youth. *Environment and Urbanization*, 14(2), 3-10. <https://doi.org/10.1177/095624780201400201>
- Bastounis, A., Callaghan, P., Banerjee, A., & Michail, M. (2016). The effectiveness of the Penn Resiliency Programme (PRP) and its adapted versions in reducing depression and anxiety and improving explanatory style: A systematic review and meta-analysis. *Journal of Adolescence*, 52, 37-48.
- Batalle, D., Edwards, A. D., & O'Muircheartaigh, J. (2018). Annual research review: not just a small adult brain: understanding later neurodevelopment through imaging the neonatal brain. *Journal of Child Psychology and Psychiatry*, 59(4), 350-371.
- Bates, M. & Boren, D. M. (2019). *Assessing Wellbeing in Schools*. EdTech Books. <https://edtechbooks.org/wellbeing>
- Beaudoin, C. E. (2007). The impact of news use and social capital on youth wellbeing: An aggregate-level analysis. *Journal of Community Psychology*, 35(8), 947-965. <https://doi.org/10.1002/jcop.20205>
- Beelmann, A. & Lösel, F. (2006). Child social skills training in developmental crime prevention: Effects on antisocial behavior and social competence. *Psicothema*, 18(3), 603-10. PMID: 17296094
- Behaviour Change, 18(4), 194-203. <https://doi.org/10.1375/bech.18.4.194>
- Belfi, B., Goos, M., Fraine, B., Damme, J. (2011). The effect of class composition by gender and ability on secondary school students' school well-being and academic self-concept: A literature review. *Educational Research Review*, 7(1), 62-74. <https://doi.org/10.1016/j.edurev.2011.09.002>
- Bellet, C., De Neve, J. E., & Ward, G. (2019). Does employee happiness have an impact on productivity?. *Saïd Business School WP*, 13.
- Ben-Arieh, A. (2008). Indicators and Indices of Children's Well-Being: Towards a More Policy-Oriented Perspective.

- European Journal of Education, 43(1), 37-50. <https://doi.org/10.1111/j.1465-3435.2007.00332.x>
- Ben-Arieh, A. (2008). The child indicators movement: past, present, and future. *Child Indicators Research*, 1(1), 3–16. <https://doi.org/10.1007/s12187-007-9003-1>.
- Ben-Arieh, A., & Frønes, I. (2007). Indicators of Children's Well Being - Concepts, Indices and Usage. *Social Indicators Research*, 80(1), 1-4. <https://doi.org/10.1007/s11205-006-9069-z>
- Ben-Arieh, A., Casas, F., Frønes, I., & Korbin, J. E. (2014). Multifaceted concept of child well-being. *Handbook of child well-being*, 1, 1-27.
- Ben-Arieh, A., Dinisman, T., & Rees, G. (2017). A comparative view of children's subjective well-being: Findings from the second wave of the ISCWeB project. *Children and Youth Services Review*, 80, 1-2. <https://doi.org/10.1016/j.childyouth.2017.06.068>.
- Benke, C., Autenrieth, L. K., Asselmann, E., & Pané-Farré, C. A. (2020). Lockdown, quarantine measures, and social distancing: Associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry Research*, 293, 113462. <https://doi.org/10.1016/j.psychres.2020.113462>
- Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist*, 73(7), 855. <https://doi.org/10.1037/amp0000204>
- Bennouna, C., Khauli, N., Basir, M., Allaf, C., Wessells, M., & Stark, L. (2019). School-based programs for supporting the mental health and psychosocial wellbeing of adolescent forced migrants in high-income countries: A scoping review. *Social Science & Medicine*, 239(112558). <https://doi.org/10.1016/j.socscimed.2019.112558>
- Benson-Allott, C. (2020). Out of sight? Vulnerable Young People: COVID-19 Response. COVID 19 Response Final Report. *Film Quarterly* 65(2): 14–15. <https://doi.org/10.1525/FQ.2011.65.2.14>
- Berger, C., Alcalay, L., Torretti, A., & Milicic, N. (2011). Socio-emotional well-being and academic achievement: Evidence from a multilevel approach. *Psicologia: reflexao e critica*, 24(2), 344-351. <https://doi.org/10.1590/S0102-79722011000200016>
- Bergström, H., Haggård, U., Norman, Å., Sundblom, E., Elinder, L. S., & Nyberg, G. (2015). Factors influencing the implementation of a school-based parental support programme to promote health-related behaviours—interviews with teachers and parents. *BMC Public Health*, 15(1), 1-9. <https://doi.org/10.1186/s12889-015-1896-x>
- Berkowitz, M.W., & Bier, M.C. (2007). What works in character education. *Journal of Research in Character Education*, 5, 29-48.
- Bermejo-Cantarero, A., Álvarez-Bueno, C., Martínez-Vizcaino, V., Redondo-Tébar, A., Pozuelo-Carrascosa, D. P., & Sánchez-López, M. (2021). Relationship between both cardiorespiratory and muscular fitness and health-related quality of life in children and adolescents: a systematic review and meta-analysis of observational studies. *Health and Quality of Life Outcomes*, 19(1), 1-15. <https://doi.org/10.1186/s12955-021-01766-0>
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review*, 41, 27-36. <https://doi.org/10.1016/j.childyouth.2014.03.001>
- Beyens, I, Pouwels, J.L, Van el, I.I, Keijsers, L, & Valkenburg, P.M. (2020). The effect of social media on well-being differs from adolescent to adolescent. *Scientific Reports*, 10(1), 10763. <https://doi.org/10.1038/s41598-020-67727-7>
- Bhargava, S. (2011). Diagnosis and management of common sleep problems in children. *Pediatrics in Review-Elk Grove*, 32(3), 91. <https://doi.org/10.1542/pir.32-3-91>
- Biddle, S. J., & Asare, M. (2011). Physical activity and mental health in children and adolescents: a review of reviews. *British Journal of Sports Medicine*, 45(11), 886-895. <https://doi.org/10.1136/bjsports-2011-090185>
- Biddle, S.J.H., Mutrie, N., Gorely, T., & Faulkner, G. (2021). *Psychology of Physical Activity: Determinants, Well-Being and Interventions* (4th ed.). Routledge. <https://doi.org/10.4324/9781003127420>
- Bidzan-Bluma, I., & Lipowska, M. (2018). Physical activity and cognitive functioning of children: a systematic review. *International Journal of Environmental Research and Public Health*, 15(4), 800. <https://doi.org/10.3390/ijerph15040800>
- Blakemore, S. J. (2008). The social brain in adolescence. *Nature Reviews Neuroscience*, 9(4), 267-277.
- Blakemore, S. J. (2018). Avoiding social risk in adolescence. *Current directions in psychological science*, 27(2), 116-122.
- Blakemore, S. J., & Choudhury, S. (2006). Development of the adolescent brain: implications for executive function and social cognition. *Journal of child psychology and psychiatry*, 47(3-4), 296-312.
- Blank, L., Baxter, S., Goyder, E., Guillaume, L., Wilkinson, A., Hummel, S., Chilcott, J., & Payne, N. (2009). Systematic review of the effectiveness of universal interventions which aim to promote emotional and social wellbeing in secondary schools. *SchHARR Public Health*

Collaborating Centre, University of Sheffield.  
[https://www.sheffield.ac.uk/polopoly\\_fs/1.442211/file/Wellbeing-in-schools.pdf](https://www.sheffield.ac.uk/polopoly_fs/1.442211/file/Wellbeing-in-schools.pdf)

Boarini, R., Kolev, A., & McGregor, A. (2014). Measuring well-being and progress in countries at different stages of development: Towards a more universal conceptual framework.

Bobo, E., Lin, L., Acquaviva, E., Caci, H., Franc, N., Gamon, L., Picot, M. C., Pupier, F., Speranza, M., Falissard, B., & Purper-Ouakil, D. (2020). Comment les enfants et adolescents avec le trouble déficit d'attention/hyperactivité (TDAH) vivent-ils le confinement durant la pandémie COVID-19 ? [How do children and adolescents with Attention Deficit Hyperactivity Disorder (ADHD) experience lockdown during the COVID-19 outbreak?]. *L'Encephale*, 46(3S), S85–S92. <https://doi.org/10.1016/j.encep.2020.05.011>

Boergers, J., Gable, C. J., & Owens, J. A. (2014). Later school start time is associated with improved sleep and daytime functioning in adolescents. *Journal of Developmental & Behavioral Pediatrics*, 35(1), 11-17. <https://doi.org/10.1097/DBP.0000000000000018>

Bokhorst, C. L., Sumter, S. R., & Westenberg, P. M. (2010). Social support from parents, friends, classmates, and teachers in children and adolescents aged 9 to 18 years: Who is perceived as most supportive?. *Social Development*, 19(2), 417-426. <https://doi.org/10.1111/j.1467-9507.2009.00540.x>

Bonardi, O., Wang, Y., Li, K., Jiang, X., Krishnan, A., He, C., Sun, Y., Wu, Y., Boruff, J. T., Markham, S., Rice, D. B., , Thombs-Vite, I., Tasleem, A., Dal Santo, T., Yao, A., Azar, M., Agic, B., Fahim, C., Martin, M. S., ... Thombs, B. D. (2021). Effects of COVID-19 Mental Health Interventions among Community-based Children, Adolescents, and Adults: A Living Systematic Review of Randomised Controlled Trials. <https://doi.org/10.1101/2021.05.04.21256517>

Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *The Journal of Adolescent Health: official publication of the Society for Adolescent Medicine*, 40(4), 357.e9–357.e3.57E18. <https://doi.org/10.1016/j.jadohealth.2006.10.013>

Bond, L., Carlin, J. B., Thomas, L., Rubin, K., & Patton, G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *BMJ*, 323(7311), 480-484. <https://doi.org/10.1136/bmj.323.7311.480>

Bonell, C., Allen, E., Warren, E., McGowan, J., Bevilacqua, L., Jamal, F., Sadique, Z., Legood, R., Wiggins, M., Opondo, C., Mathiot, A., Sturgess, J., Papparini, S., Fletcher, A., Perry, M., West, G., Tancred, T., Scott, S., Elbourne, D., ... Viner, R. M. (2019). Modifying the secondary school environment to reduce bullying and

aggression: the INCLUSIVE cluster RCT. *Public Health Research*, 7(18), 1-164. <https://doi.org/10.3310/phr07180>

Bonell, C., Humphrey, N., Fletcher, A., Moore, L., Anderson, R., & Campbell, R. (2014). Why schools should promote students' health and wellbeing. *BMJ : British Medical Journal*, 348, G3078 <https://doi.org/10.1136/bmj.g3078>

Botvin, et al (2006). Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science*, 7(4), 403-408. <https://doi.org/10.1007/s11121-006-0057-y>

Bowers, J. M., & Moyer, A. (2017). Effects of school start time on students' sleep duration, daytime sleepiness, and attendance: a meta-analysis. *Sleep Health*, 3(6), 423-431. <https://doi.org/10.1016/j.sleh.2017.08.004>

Bowlby, J. (1958), The nature of the child's tie to his mother. *International Journal of Psycho-*

Boyce, C. J., Wood, A. M., & Powdthavee, N. (2013). Is Personality Fixed? Personality Changes as Much as "Variable" Economic Factors and More Strongly Predicts Changes to Life Satisfaction. *Social Indicators Research*, 111(1), 287-305. doi:10.1007/s11205-012-0006-z

Boyle, M. H., Cunningham, C. E., Heale, J., Hundert, J., McDonald, J., Offord, D. R., et al (1999). Helping children adjust - A Tri-Ministry Study: I. Evaluation methodology. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 40(7), 1051-1060. PMID: 10576535

Bradburn, N. M. (1969). *The Structure of Psychological Well-Being*. Oxford: Aldine.

Bradley, R. H., & Corwyn, R. F. (2004). "Family process" investments that matter for child well-being. In *Family Investments in Children's Potential: Resources and Parenting Behaviors That Promote Success*, 1-32. Psychology Press Taylor & Francis Group. <https://doi.org/10.4324/9781410610874>

Bradshaw, J. (2015). Subjective well-being and social policy: Can nations make their children happier? *Child indicators research*, 8(1), 227-241. <https://link.springer.com/content/pdf/10.1007/s12187-014-9283-1.pdf>

Bradshaw, J. (2015). Subjective well-being and social policy: Can nations make their children happier?. *Child indicators research*, 8(1), 227-241. <https://doi.org/10.1007/s12187-014-9283-1>

Bradshaw, J. & Hoelscher, P. & Richardson, D. (2007). An Index of Child Well-Being in the European Union. *Social Indicators Research*, 80. <https://doi.org/10.1007/s11205-006-9024-z>.

Bradshaw, J. & Rees, G. (2017). Exploring national variations in child subjective well-being. *Children and*

- Youth Services Review, 80, 3-14.  
<https://doi.org/10.1016/j.childyouth.2017.06.059>
- Bradshaw, J., Crous, G., Rees, G., & Turner, N. (2017). Comparing children's experiences of schools-based bullying across countries. *Children and Youth Services Review*, 80, 171-180.  
<https://doi.org/10.1016/j.childyouth.2017.06.060>
- Bradshaw, J., Keung, A., Rees, G., & Goswami, H. (2011). Children's subjective well-being: International comparative perspectives. *Children and Youth Services Review*, 33(4), 548-556.  
<https://doi.org/10.1016/j.childyouth.2010.05.010>
- Bradshaw, Jonathan & Keung, Antonia. (2011). Trends in child subjective well-being in the UK. *Journal of Children's Services*, 6, 4-17.  
<https://doi.org/10.5042/jcs.2011.0122>
- Brady, J. & Wilson, E. (2021). Teacher wellbeing in England: teacher responses to school-level initiatives. *Cambridge Journal of Education*, 51(1), 45-63,  
<https://doi.org/10.1080/0305764X.2020.1775789>
- Brady, J., & Wilson, E. (2021). Teacher wellbeing in England: teacher responses to school-level initiatives. *Cambridge Journal of Education*, 51(1), 45-63.  
 doi:10.1080/0305764X.2020.1775789
- Bringmann, L. F., Vissers, N., Wichers, M., Geschwind, N., Kuppens, P., Peeters, F., Borsboom, D., & Tuerlinckx, F. (2013). A network approach to psychopathology: new insights into clinical longitudinal data. *PloS One*, 8(4), e60188. <https://doi.org/10.1371/journal.pone.0060188>
- Brodeur, A., Clark, A. E., Fleche, S., & Powdthavee, N. (2021). COVID-19, lockdowns and well-being: Evidence from Google Trends. *Journal of Public Economics*, 193, 104346. <https://doi.org/10.1016/j.jpubeco.2020.104346>
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32(7), 513-531. <https://doi.org/10.1037/0003-066X.32.7.513>
- Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J. M. (1978). Elementary school social climate and school achievement. *American Educational Research Journal*, 15(2), 301-318.  
<https://doi.org/10.3102/00028312015002301>
- Brooks-Gunn, J., Duncan, G. J., & Britto, P. R. (1999). Are socioeconomic gradients for children similar to those for adults?: Achievement and health of children in the United States. In D. P. Keating & C. Hertzman (Eds.), *Developmental health and the wealth of nations: Social, biological, and educational dynamics* (pp. 94-124). The Guilford Press.
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* (London, England), 395(10227), 912-920.  
[https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Brown, R. (2018). Mental health and wellbeing provision in schools: Review of published policies and information. Research report; RR837. Department for Education. UK. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/747709/Mental\\_health\\_and\\_wellbeing\\_provision\\_in\\_schools.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/747709/Mental_health_and_wellbeing_provision_in_schools.pdf)
- Brown, S. L. (2004). Family structure and child well-being: The significance of parental cohabitation. *Journal of Marriage and Family*, 66(2), 351-367.  
<https://doi.org/10.1111/j.1741-3737.2004.00025.x>
- Browne, G., Gafni, A., Roberts, J., Byrne, C., & Majumdar, B. (2004). Effective/efficient mental health programs for school-age children: a synthesis of reviews. *Social Science & Medicine*, 58(7), 1367-1384.  
[https://doi.org/10.1016/S0277-9536\(03\)00332-0](https://doi.org/10.1016/S0277-9536(03)00332-0)
- Bryant, G., Heard, H., & Watson, J. (2015). Measuring Mental Wellbeing in Children and Young People. Public Health England (PHE). [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/768983/Measuring\\_mental\\_wellbeing\\_in\\_children\\_and\\_young\\_people.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/768983/Measuring_mental_wellbeing_in_children_and_young_people.pdf)
- Brylka, A., Wolke, D., Ludyga, S., Bilgin, A., Spiegler, J., Trower, H., Gkiouleka, A., Gerber, M., Brand, S., Grob, A., Weber, P., Heinonen, K., Kajantie, E., Räikkönen, K., & Lemola, S. (2021). Physical activity, mental health, and well-being in very pre-term and term born adolescents: An individual participant data meta-analysis of two accelerometry studies. *International Journal of Environmental Research and Public Health*, 18(4), 1735. <https://doi.org/10.3390/ijerph18041735>
- Bücker, S., Nuraydin, S., Simonsmeier, B. A., Schneider, M., & Luhmann, M. (2018). Subjective well-being and academic achievement: A meta-analysis. *Journal of Research in Personality*, 74, 83-94.  
<https://doi.org/10.1016/j.jrp.2018.02.007>
- Bürgin, D., & Steck, B. (2008). Resilience in childhood and adolescence [Resilienz im Kindes- und jugendalter]. *Schweiz Arch Neurol Psychiatr*, 159(8), 480-489. <https://doi.org/10.4414/sanp.2008.02002>
- Bywater, T., & Sharples, J. (2012). Effective evidence-based interventions for emotional well-being: Lessons for policy and practice. *Research Papers in Education*, 27(4), 389-408.  
<https://doi.org/10.1080/02671522.2012.690242>
- Caini, S., Gandini, S., Dudas, M., Bremer, V., Severi, E., & Gherasim, A. (2014). Sexually transmitted infections and prostate cancer risk: a systematic review and meta-analysis. *Cancer Epidemiology*, 38(4), 329-338.  
<https://doi.org/10.1016/j.canep.2014.06.002>

- Caldwell, D. M., Davies, S. R., Hetrick, S. E., Palmer, J. C., Caro, P., López-López, J. A., Gunnell, D., Kidger, J., Thomas, J., French, C., Stockings, E., Campbell, R., & Welton, N. J. (2019). School-based interventions to prevent anxiety and depression in children and young people: a systematic review and network meta-analysis. *The Lancet Psychiatry*, 6(12), 1011-1020. [https://doi.org/10.1016/S2215-0366\(19\)30403-1](https://doi.org/10.1016/S2215-0366(19)30403-1)
- Caldwell, L. L. (2005). Leisure and health: Why is leisure therapeutic? *British Journal of Guidance & Counselling*, 3(1), 7-26. <http://dx.doi.org/10.1080/03069880412331335939>
- Camfield, L. (2012). Resilience and well-being among urban Ethiopian children: What role do social resources and competencies play?. *Social Indicators Research*, 107(3), 393-410. <https://doi.org/10.1007/s11205-011-9860-3>
- Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2019). Malleability, plasticity, and individuality: How children learn and develop in context. *Applied Developmental Science*, 23(4), 307-337. <https://doi.org/10.1080/10888691.2017.1398649>
- Cantril, H. (1965). *The pattern of human concern*. Rutgers University Press.
- Carlisle, S., & Hanlon, P. (2013). Positive mental health and wellbeing: connecting individual, social and global levels of wellbeing. In L. Knifton, & N. Quinn (Eds.), *Public Mental Health: Global Perspectives* (pp.3-11). Open University Press.
- Carson, V., Hunter, S., Kuzik, N., Wiebe, S. A., Spence, J. C., Friedman, A., Tremblay, M. S., Slater, L., & Hinkley, T. (2016). Systematic review of physical activity and cognitive development in early childhood. *Journal of Science and Medicine in Sport*, 19(7), 573-578. <https://doi.org/10.1016/j.jsams.2015.07.011>
- Carvajal, S.C., Clair, S.D., Nash, S.G. and Evans, R.I. (1998) Relating optimism, hope and self-esteem to social influences in deterring substance use in adolescents. *Journal of Social and Clinical Psychology*, 17, 443-465. <https://doi.org/10.1521/jscp.1998.17.4.443>
- Casas, F. (2011). Subjective social indicators and child and adolescent well-being. *Child Indicators Research*, 4(4), 555-575. <https://doi.org/10.1007/s12187-010-9093-z>
- Casas, F., & González-Carrasco, M. (2019). Subjective well-being decreasing with age: New research on children over 8. *Child Development*, 90(2), 375-394. <https://doi.org/10.1111/cdev.13133>
- Casas, F., Bello, A., González, M., & Aligué, M. (2013). Children's subjective well-being measured using a composite index: What impacts Spanish first-year secondary education students' subjective well-being?. *Child Indicators Research*, 6(3), 433-460. <https://doi.org/10.1007/s12187-013-9182-x>
- Casas, F., Coenders, G., González, M., Malo, S., Bertran, I., & Figuer, C. (2012). Testing the relationship between parents' and their children's subjective well-being. *Journal of Happiness Studies*, 13(6), 1031-1051. <https://doi.org/10.1007/s10902-011-9305-3>
- Casas, F., Figuer, C., González, M., Malo, S., Alsinet, C., & Subarroca, S. (2007). The well-being of 12-to 16-year-old adolescents and their parents: Results from 1999 to 2003 Spanish samples. *Social Indicators Research*, 83(1), 87-115. <https://doi.org/10.1007/s11205-006-9059-1>
- Casas, F., González-Carrasco, M., & Luna, X. (2018). Children's rights and their subjective well-being from a multinational perspective. *European Journal of Education*, 53(3), 336-350. <https://doi.org/10.1111/ejed.12294>
- Casas, F., Tiliouine, H., & Figuer, C. (2014). The subjective well-being of adolescents from two different cultures: Applying three versions of the PWI in Algeria and Spain. *Social Indicators Research*, 115(2), 637-651. <https://doi.org/10.1007/s11205-012-0229-z>
- Casel (2007). *The Benefits of School-Based Social and Emotional Learning Programs: Highlights from a Forthcoming CASEL Report*. <https://www.melissainstitute.org/documents/weissberg-3.pdf>
- Casey, B. J., Somerville, L. H., Gotlib, I. H., Ayduk, O., Franklin, N. T., Askren, M. K., Jonides, J., Berman, M. G., Wilson N. L., Teslovich, T., Glover, G., Zayas, V., Mischel, W., & Shoda, Y. (2011). Behavioral and neural correlates of delay of gratification 40 years later. *Proceedings of the National Academy of Sciences*, 108(36), 14998-15003. <https://doi.org/10.1073/pnas.1108561108>
- Castro, A. J., Kelly, J., & Shih, M. (2010). Resilience strategies for new teachers in high-needs areas. *Teaching and Teacher Education*, 26(3), 622-629. <https://doi.org/10.1016/j.tate.2009.09.010>
- Catalano, R. F., Berglund, M. L., Ryan, J. A., Lonczak, H. S., & Hawkins, J. D. (2002). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Prevention & Treatment*, 5(1), 15a. <https://doi.org/10.1177/0002716203260102>
- CDC (2021). *Children's Mental Health*. <https://www.cdc.gov/childrensmentalhealth/basics.html>.
- Chaput, J. P., Gray, C. E., Poitras, V. J., Carson, V., Gruber, R., Olds, T., Weiss, S. K., Gorber, S. C., Kho, M. E., Sampson, M., Belanger, K., Eryuzlu, S., Callender, L., & Tremblay, M. S. (2016). Systematic review of the relationships between sleep duration and health indicators in school-aged children and youth. *Applied*

- Physiology, Nutrition, and Metabolism, 41(6), S266-S282. <https://doi.org/10.1139/apnm-2015-0627>
- Chen, X., Cai, Z., He, J., & Fan, X. (2020). Gender differences in life satisfaction among children and adolescents: A meta-analysis. *Journal of Happiness Studies*, 21(6), 2279-2307. <https://doi.org/10.1007/s10902-019-00169-9>
- Chen, Y., Haines, J., Charlton, B. M., & VanderWeele, T. J. (2019). Positive parenting improves multiple aspects of health and well-being in young adulthood. *Nature Human Behaviour*, 3(7), 684-691. <https://doi.org/10.1038/s41562-019-0602-x>
- Cheney, G., Schlösser, A., Nash, P., & Glover, L. (2014). Targeted group-based interventions in schools to promote emotional well-being: a systematic review. *Clinical child psychology and psychiatry*, 19(3), 412-438.
- Chetty, R., & Hendren, N. (2018). The impacts of neighborhoods on intergenerational mobility II: County-level estimates. *The Quarterly Journal of Economics*, 133(3), 1163-1228. <https://doi.org/10.1093/qje/qjy006>
- Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment. *American Economic Review*, 106(4), 855-902. <https://doi.org/10.1257/aer.20150572>
- Choi, A. (2018), "Emotional well-being of children and adolescents: Recent trends and relevant factors", OECD Education Working Papers, No. 169, OECD Publishing, Paris, <https://doi.org/10.1787/41576fb2-en>.
- Christensen, P., & O'Brien, M. (Eds.). (2003). *Children in the city: Home neighbourhood and community*. London: Routledge.
- Christian, H., Zubrick, S. R., Foster, S., Giles-Corti, B., Bull, F., Wood, L., Knuiman, M., Brinkman, S., Houghton, S., & Boruff, B. (2015). The influence of the neighborhood physical environment on early child health and development: A review and call for research. *Health and Place*, 33, 25-36. <https://doi.org/10.1016/j.healthplace.2015.01.005>
- Chu, P. S., Saucier, D. A., & Hafner, E. (2010). Meta-analysis of the relationships between social support and well-being in children and adolescents. *Journal of Social and Clinical Psychology*, 29(6), 624-645. <https://doi.org/10.1521/jscp.2010.29.6.624>
- Chui, W. H., & Wong, M. Y. (2016). Gender differences in happiness and life satisfaction among adolescents in Hong Kong: Relationships and self-concept. *Social Indicators Research*, 125(3), 1035-1051. <https://doi.org/10.1007/s11205-015-0867-z>
- Cicchetti, D., & Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology*, 8, 597-600. <https://doi.org/10.1017/S0954579400007318>.
- Clair, A. (2014). *The effects of schooling and education policy on the subjective well-being of children: A comparative study* (Doctoral dissertation, University of York).
- Clark, A. (2019) *Born to Be Mild? Cohort Effects Don't (Fully) Explain Why Well-Being Is U-Shaped in Age*. In: Rojas M. (eds) *The Economics of Happiness*. Springer, Cham. [https://doi.org/10.1007/978-3-030-15835-4\\_17](https://doi.org/10.1007/978-3-030-15835-4_17)
- Clark, A., Flèche, S., Layard, R., Powdthavee, N., & Ward, G. (2018). *The origins of happiness*. Princeton University Press.
- Clarke, A., & Lovewell, K. (2021). Adolescent mental health evidence brief 2: The relationship between emotional and behavioural problems in adolescence and adult outcomes. Early Intervention Foundation. <https://www.eif.org.uk/report/adolescent-mental-health-evidence-brief2-emotional-and-behavioural-problems-in-adolescence-and-adult-outcomes>
- Cluver, L., Lachman, J. M., Sherr, L., Wessels, I., Krug, E., Rakotomalala, S., McDonald, K. et al., (2020). Parenting in a time of COVID-19. *Lancet*, 395(10231). [https://doi.org/10.1016/S0140-6736\(20\)30736-4](https://doi.org/10.1016/S0140-6736(20)30736-4)
- Cohen, J. & Geier, V. K. (2010). *School Climate Research Summary: January 2010*. New York, NY. : [https://www.cde.state.co.us/sites/default/files/documents/pbis/bullying/downloads/pdf/scbrief\\_ver1no1\\_jan2010.pdf](https://www.cde.state.co.us/sites/default/files/documents/pbis/bullying/downloads/pdf/scbrief_ver1no1_jan2010.pdf)
- Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record*, 111(1), 180-213. <https://doi.org/10.1177/016146810911100108>
- Coley, R. L., Leventhal, T., Lynch, A. D., & Kull, M. (2013). Relations between housing characteristics and the well-being of low-income children and adolescents. *Developmental Psychology*, 49(9), 1775. <https://doi.org/10.1037/a0031033>
- Collie, R. J., Bostwick, K. C., & Martin, A. J. (2020). Perceived autonomy support, relatedness with students, and workplace outcomes: An investigation of differences by teacher gender. *Educational Psychology*, 40(3), 253-272. <https://doi.org/10.1080/01443410.2019.1663791>
- Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, 104(4), 1189. <https://doi.org/10.1037/a0029356>
- Collishaw, S. (2014). Annual Research Review. Secular trends in child and adolescent mental health. *The Journal*

- of Child Psychology and Psychiatry, 56(3), 370-393. <https://doi.org/10.1111/jcpp.12372>
- Collishaw, S. (2015). Annual research review: secular trends in child and adolescent mental health. *Journal of Child Psychology and Psychiatry*, 56(3), 370-393. <https://doi.org/10.1111/jcpp.12372>
- Collishaw, S., Furzer, E., Thapar, A. K., & Sellers, R. (2019). Brief report: a comparison of child mental health inequalities in three UK population cohorts. *European Child & Adolescent Psychiatry*, 28(11), 1547-1549. <https://doi.org/10.1007/s00787-019-01305-9>
- Commissioner for Children and Young People WA. (2020). Supporting student wellbeing in WA schools. Perth. <https://www.cryp.wa.gov.au/media/4434/supporting-student-wellbeing-in-wa-schools-discussion-paper-october-2020.pdf>
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, 143(9), 939. <https://doi.org/10.1037/bul0000110>
- Conti, G. & Heckman, J. J. (2013). "The developmental approach to child and adult health", *Pediatrics*, 131(2), S133-S141. <http://dx.doi.org/10.1542/peds.2013-0252d>.
- Conti, G., & Heckman, J. J. (2014). Understanding conscientiousness across the life course: An economic perspective. *Developmental psychology*, 50(5), 1451. <https://doi.org/10.1037/a0036426>
- Cooke, P. J., Melchert, T. P., & Connor, K. (2016). Measuring well-being: A review of instruments. *The Counseling Psychologist*, 44(5), 730-757.
- Copeland, W. E., Wolke, D., Shanahan, L., & Costello, E. J. (2015). Adult functional outcomes of common childhood psychiatric problems: a prospective, longitudinal study. *JAMA psychiatry*, 72(9), 892-899. <https://doi.org/10.1001/jamapsychiatry.2015.0730>
- Corrieri, S., Heider, D., Conrad, I., Blume, A., König, H. H., & Riedel-Heller, S. G. (2014). School-based prevention programs for depression and anxiety in adolescence: A systematic review. *Health promotion international*, 29(3), 427-441.
- Corsano, P., Majorano, M., & Champretavy, L. (2006). Psychological well-being in adolescence: the contribution of interpersonal relations and experience of being alone. *Adolescence*, 41(162). PMID: 16981621
- Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being - happy and unhappy people. *Journal of Personality and Social Psychology*, 38, 668-678. <https://doi.org/10.1037/0022-3514.38.4.668>
- Costa, P. T., & McCrae, R. R. (1988). Personality in adulthood—a 6-year longitudinal-study of self-reports and spouse ratings on the Neo Personality-Inventory. *Journal of Personality and Social Psychology*, 54, 853-863. <https://doi.org/10.1037/0022-3514.54.5.853>
- Costello, E. J., & Maughan, B. (2015). Annual research review: optimal outcomes of child and adolescent mental illness. *Journal of Child Psychology and Psychiatry*, 56(3), 324-341. <https://doi.org/10.1111/jcpp.12371>
- Cotterell, J. D. 2007. *Social network in youth and adolescence*, New York, NY: Routledge.
- Council of Australian Governments. (2009). Investing in the Early Years—A National Early Childhood Development Strategy: An initiative of the Council of Australian Governments. Commonwealth of Australia. [https://www.startingblocks.gov.au/media/1104/national\\_ecd\\_strategy.pdf](https://www.startingblocks.gov.au/media/1104/national_ecd_strategy.pdf)
- Council of Europe, COE. (2021). Improving well-being at school. <https://www.coe.int/en/web/campaign-free-to-speak-safe-to-learn/improving-well-being-at-school>
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24(1), 123-130. [https://doi.org/10.1016/S0191-8869\(97\)00145-1](https://doi.org/10.1016/S0191-8869(97)00145-1)
- Craig, W., Harel-Fisch, Y., Fogel-Grinvald, H., Dostaler, S., Hetland, J., Simons-Morton, B., Molcho, M., de Mato, M. G., Overpeck, M., Due, P., Pickett, W., The HBSC Violence & Injuries Prevention Focus Group, & The HBSC Bullying Writing Group. (2009). A cross-national profile of bullying and victimization among adolescents in 40 countries. *International Journal of Public Health*, 54(2), 216-224. <https://doi.org/10.1007/s00038-009-5413-9>
- Crespo, C., Kielikowski, M., Pryor, J., & Jose, P. E. (2011). Family rituals in New Zealand families: Links to family cohesion and adolescents' well-being. *Journal of Family Psychology*, 25(2), 184. <https://doi.org/10.1037/a0023113>
- Cummins, R. A. (1998). The Second Approximation to an International Standard for Life Satisfaction. *Social Indicators Research*, 43(3), 307-334. doi:10.1023/A:1006831107052
- Cunsolo, S. (2017). Subjective wellbeing during adolescence: a literature review on key factors relating to adolescent's subjective wellbeing and education outcomes. *Studi sulla formazione*, 20(1), 81-94. [https://doi.org/10.13128/Studi\\_Formaz-20941](https://doi.org/10.13128/Studi_Formaz-20941)
- Curby, T. W., Brock, L. L., & Hamre, B. K. (2013). Teachers' emotional support consistency predicts

- children's achievement gains and social skills. *Early Education & Development*, 24(3), 292-309. <https://doi.org/10.1080/10409289.2012.665760>
- Currie, C., Zanotti, C., Morgan, A., Currie, D., De Looze, M., Roberts, C., Samdal, O., Smith, O. R., & Barnekow, V. (2012). Social determinants of health and well-being among young people. Health Behaviour in School-aged Children (HBSC) study: international report from the 2009/2010 Survey. <https://www.euro.who.int/en/publications/abstracts/social-determinants-of-health-and-well-being-among-young-people.-health-behaviour-in-school-aged-children-hbsc-study>
- Currie, J. (2005). Health disparities and gaps in school readiness. *The Future of Children*, 15(1), 117-138. <http://dx.doi.org/10.1353/foc.2005.0002>.
- Currie, J. (2009). Healthy, Wealthy, and Wise: Socioeconomic Status, Poor Health in Childhood, and Human Capital Development. *Journal of Economic Literature*, 47(1), 87-122. <http://dx.doi.org/10.1257/jel.47.1.87>.
- Currie, J. (2020). Child health as human capital. *Health Economics*, 29(4), 452-463. <http://dx.doi.org/10.1002/hec.3995>.
- CYMRU. (2010). Thinking Positively: Emotional Health and Well-being in Schools and Early Year Settings. Welsh Assembly Government. <https://gov.wales/sites/default/files/publications/2018-12/thinking-positively-emotional-health-and-well-being-in-schools-and-early-years-settings.pdf>
- Dandash, O., Cherbuin, N., Schwartz, O., Allen, N. B., & Whittle, S. (2021). The long-term associations between parental behaviors, cognitive function and brain activation in adolescence. *Scientific reports*, 11(1), 1-10.
- Daniel, S. K., Abdel-Baki, R., & Hall, G. B. (2020). The Protective Effect of Emotion Regulation on Child and Adolescent Wellbeing. *Journal of Child and Family Studies*, 29, 2010-2027. <https://doi.org/10.1007/s10826-020-01731-3>
- Danielsen, A. G., Breivik, K., & Wold, B. (2011). Do perceived academic competence and school satisfaction mediate the relationships between perceived support provided by teachers and classmates, and academic initiative?. *Scandinavian Journal of Educational Research*, 55(4), 379-401. <https://doi.org/10.1080/00313831.2011.587322>
- Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2009). School-related social support and students' perceived life satisfaction. *The Journal of Educational Research*, 102(4), 303-320. <https://doi.org/10.3200/JOER.102.4.303-320>
- Das, J. K., Salam, R. A., Lassi, Z. S., Khan, M. N., Mahmood, W., Patel, V., & Bhutta, Z. A. (2016). Interventions for adolescent mental health: an overview of systematic reviews. *Journal of Adolescent Health*, 59(4), S49-S60.
- de Anstiss, H., Ziaian, T., Procter, N., Warland, J., & Baghurst, P. (2009). Help-seeking for Mental Health Problems in Young Refugees: A Review of the Literature with Implications for Policy, Practice, and Research. *Transcultural Psychiatry*, 46(4), 584-607. <https://doi.org/10.1177/1363461509351363>
- de Figueiredo, C. S., Sandre, P. C., Portugal, L., Mázalade-Oliveira, T., da Silva Chagas, L., Raony, Í., Ferreira, E. S., Giestal-de-Araujo, E., Dos Santos, A. A., & Bomfim, P. O. (2021). COVID-19 pandemic impact on children and adolescents' mental health: Biological, environmental, and social factors. *Progress in Neuro-psychopharmacology & Biological Psychiatry*, 106, 110171. <https://doi.org/10.1016/j.pnpbp.2020.110171>
- De Looze, M. E., Cosma, A. P., Vollebergh, W. A., Duinhof, E. L., de Roos, S. A., van Dorsselaer, S.,
- De Neve, J. E., & Oswald, A. J. (2012). Estimating the influence of life satisfaction and positive affect on later income using sibling fixed effects. *Proceedings of the National Academy of Sciences*, 109(49), 19953-19958. <https://doi.org/10.1073/pnas.1211437109>
- De Neve, J. E., Krekel, C., & Ward, G. (2018). Work and well-being: A global perspective. Chapter 5 in *Global Happiness Policy Report*, 74-128.
- De Róiste, A., Kelly, C., Molcho, M., Gavin, A., & Gabhainn, S. N. (2012). Is school participation good for children? Associations with health and wellbeing. *Health Education*, 112(2), 88-104. <https://doi.org/10.1108/09654281211203394>
- DeHart, G. B., Sroufe, L. A., & Cooper, R. G. (2000). *Child development: Its nature and course* (4th ed.). McGraw-Hill.
- Deutscher, N. (2018). Place, jobs, peers and the teenage years: exposure effects and intergenerational mobility. *Tax and Transfer Policy Institute-Working Paper*, 10.
- Dewald, J. F., Meijer, A. M., Oort, F. J., Kerkhof, G. A., & Bögels, S. M. (2010). The influence of sleep quality, sleep duration and sleepiness on school performance in children and adolescents: A meta-analytic review. *Sleep Medicine Reviews*, 14(3), 179-189. <https://doi.org/10.1016/j.smrv.2009.10.004>
- Dias, S. F., Matos, M. G., & Gonçalves, A. C. (2005). Preventing HIV transmission in adolescents: an analysis of the Portuguese data from the Health Behaviour School-aged Children study and focus groups. *The European Journal of Public Health*, 15(3), 300-304. <https://doi.org/10.1093/eurpub/cki085>

- Diekstra, R. F., & Gravesteyn, C. (2008). Effectiveness of school-based social and emotional education programmes worldwide. *Social and emotional education: An international analysis*, 255-312.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542–575. <https://doi.org/10.1037/0033-2909.95.3.542>
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist*, 55(1), 34.
- Diener, E. (Ed.). (2009). *The science of well-being: The collected works of Ed Diener (Vol. 37)*. Springer Science & Business Media.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)
- Diener, E., & Biswas-Diener, R. (2011). *Happiness: Unlocking the mysteries of psychological wealth*. Blackwell.
- Diener, E., & Suh, M. E. (1998). Subjective well-being and age: An international analysis. In K.W. Schaie & M.P. Lawton (Eds.), *Annual review of gerontology and geriatrics: Vol. 17. Focus on emotion and adult development (pp. 304-324)*. New York: Springer.
- Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. *Handbook of positive psychology*, 2, 63-73.
- Diener, E., Oishi, S., & Lucas, R. E. (2015). National accounts of subjective well-being. *American Psychologist*, 70(3), 234–242. <https://doi.org/10.1037/a0038899>
- Dillon, J., & Swinbourne, A. (2007). Helping Friends: A Peer Support Program for Senior Secondary Schools. *Australian e-Journal for the Advancement of Mental Health* 6(1). <https://doi.org/10.5172/jamh.6.1.56>
- Dinisman, T., & Ben-Arieh, A. (2016). The characteristics of children's subjective well-being. *Social Indicators Research*, 126(2), 555-569. <https://doi.org/10.1007/s11205-015-0921-x>
- Diseth, Å., & Samdal, O. (2014). Autonomy support and achievement goals as predictors of perceived school performance and life satisfaction in the transition between lower and upper secondary school. *Social Psychology of Education: An International Journal*, 17(2), 269–291. <https://doi.org/10.1007/s11218-013-9244-4>
- Dix, K, Kashfee, S.A, Carslake, T, Sniedze-Gregory, S, O'Grady, E, & Trevitt, J. (2020). A systematic review of intervention research examining effective student wellbeing in schools and their academic outcomes. *Evidence for Learning: Melbourne*. <https://www.evidenceforlearning.org.au/assets/Uploads/Main-Report-Student-Health-and-Wellbeing-Systematic-Review-FINAL-25-Sep-2020.pdf>
- Dix, K., Ahmed, K., Carslake, T., Sniedze-Gregory, S., O'Grady, E., Trevitt, J. (2020) 'Student wellbeing programs improve academic outcomes', *Discover, ACER*. <https://www.acer.org/au/discover/article/student-wellbeing-programs-improve-academic-outcomes>
- Dodge, R., Daly, A., Huyton, J., and Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222-235. <https://doi.org/10.5502/ijw.v2i3.4>
- Doek, J. E. (2014). Child well-being: Children's rights perspective. In A. Ben-Arieh, F. Casas, I. Frones, & J. E. Korbin (Eds.), *Handbook on child well-being: Theories, methods and policies in global perspective (pp. 187–217)*. Dordrecht: Springer.
- Dooley, B., Fitzgerald, A., & Giollabhui, N. M. (2015). The risk and protective factors associated with depression and anxiety in a national sample of Irish adolescents. *Irish Journal of Psychological Medicine*, 32(1), 93-105. <https://doi.org/10.1017/ipm.2014.83>
- Dotterer, A. M., & Lowe, K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence*, 40(12), 1649-1660. <https://doi.org/10.1007/s10964-011-9647-5>
- Dray, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, L., Hodder, R. K., ... & Wiggers, J. (2017). Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(10), 813-824.
- Dray, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, L., Hodder, R. K., McElwaine, K., Tremain, D., Bartlem, K., Bailey, J., Small, T., Palazzi, K., Oldmeadow, C., & Wiggers, J. (2017). Systematic Review of Universal Resilience-Focused Interventions Targeting Child and Adolescent Mental Health in the School Setting. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(10), 813–824. <https://doi.org/10.1016/j.jaac.2017.07.780>
- Duckworth, A. L., & Steinberg, L. (2015). Unpacking self-control. *Child Development Perspectives*, 9(1), 32–37. <https://doi.org/10.1111/cdep.12107>
- Due, P., Holstein, B. E., Lynch, J., Diderichsen, F., Gabhain, S. N., Scheidt, P., Currie, C., & Health Behaviour in School-Aged Children Bullying Working Group (2005). Bullying and symptoms among school-aged children: international comparative cross sectional study in 28 countries. *European Journal of Public Health*, 15(2), 128–132. <https://doi.org/10.1093/eurpub/cki105>

- Duong, M. T., Bruns, E. J., Lee, K., Cox, S., Coifman, J., Mayworm, A., & Lyon, A. R. (2021). Rates of Mental Health Service Utilization by Children and Adolescents in Schools and Other Common Service Settings: A Systematic Review and Meta-Analysis. *Administration and Policy in Mental Health*, 48(3), 420–439. <https://doi.org/10.1007/s10488-020-01080-9>
- 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(3-4), 327–350. <https://doi.org/10.1007/s10464-008-9165-0>
- Durlak, J. A., & Weissberg, R. P. (2007). The Impact of After-School Programs that Promote Personal and Social Skills. Collaborative for academic, social, and emotional learning (NJ1).
- Durlak, J. A., Taylor, R. D., Kawashima, K., Pachan, M. K., DuPre, E. P., Celio, C. I., Berger, S. R., Dymnicki, A. B., & Weissberg, R. P. (2007). Effects of positive youth development programs on school, family, and community systems. *American journal of community psychology*, 39(3-4), 269–286. <https://doi.org/10.1007/s10464-007-9112-5>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82, 405–432.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. *Child development*, 82(1), 405–432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Psychology Press.
- Dworkin, J. B., Larson, R., & Hansen, D. (2003). Adolescents' accounts of growth experiences in youth activities. *Journal of Youth and Adolescence*, 32(1), 17–26. <https://doi.org/10.1023/A:1021076222321>
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In *Nations and Households in Economic Growth* (pp. 89-125). Academic Press.
- Education Wales. (2021). Framework on embedding a whole-school approach to emotional and mental well-being (No. 269/2021). <https://gov.wales/sites/default/files/publications/2021-03/framework-on-embedding-a-whole-school-approach-to-emotional-and-mental-well-being.pdf>
- Educational Research, 56(2), 220–229. <https://doi.org/10.1080/00131881.2014.898916>
- Eime, R.M., Young, J.A., Harvey, J.T. et al. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *Int J Behav Nutr Phys Act*, 10(98). <https://doi.org/10.1186/1479-5868-10-98>
- Elgar, F. J., Pfortner, T. K., Moor, I., De Clercq, B., Stevens, G. W., & Currie, C. (2015). Socioeconomic inequalities in adolescent health 2002-2010: a time-series analysis of 34 countries participating in the Health Behaviour in School-aged Children study. *Lancet* (London, England), 385(9982), 2088–2095. [https://doi.org/10.1016/S0140-6736\(14\)61460-4](https://doi.org/10.1016/S0140-6736(14)61460-4)
- Elias, M. J., & Arnold, H. (Eds.). (2006). *The educator's guide to emotional intelligence and academic achievement: Social-emotional learning in the classroom*. Corwin Press.
- Elias, M. J., Zins, J. E., Weissberg, R. P., Frey, K. S., Greenberg, M. T., Haynes, N. M., & Shriver, T. P. (1997). *Promoting social and emotional learning: Guidelines for educators*. Ascd.
- Emerson, E.B. (1985). Evaluating the impact of deinstitutionalization on the lives of mentally retarded People. *American Journal of Mental Deficiency*, 90, 277–288.
- Engels, N., Aelterman, A., Petegem, K. V., & Schepens, A. (2004). Factors which influence the well-being of pupils in Flemish secondary schools. *Educational studies*, 30(2), 127–143.
- Epstein, H. T. (1986). Stages in human brain development. *Developmental brain research*, 30(1), 114–119.
- Epstein, J. L., & Mcpartland, J. M. (1976). The Concept and Measurement of the Quality of School Life. *American Educational Research Journal*, 13(1), 15–30. <https://doi.org/10.3102/00028312013001015>
- Ergler, C. R., Kearns, R., & Witten, K. (Eds.). (2017). *Children's Health and Wellbeing in Urban Environments*. Taylor & Francis.
- Erikson, E.H. (1950). *Childhood and Society*. New York:Norton.
- European Commission/EACEA/Eurydice, 2018. *Compulsory Education in Europe – 2018/19*. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.
- Evers, K. E., et al (2007). Transtheoretical-based bullying prevention effectiveness trials in middle schools and high schools. *Educational Research*, 49(4), 397–414. <https://doi.org/10.1080/00131880701717271>

- Farrell, A. et al (2003). Impact of the RIPP violence prevention program on rural middle school students. *The Journal of Primary Prevention*, 24(2),143- 167. <https://doi.org/10.1023/A:1025992328395>
- Farrington, D. P., & Ttofi, M. M. (2009). School-based programs to reduce bullying and victimization. *Campbell Systematic Reviews*, 5(1), i-148. <https://doi.org/10.4073/csr.2009.6>
- Farrington, D. P., & Ttofi, M. M. (2011). Bullying as a predictor of offending, violence and later life outcomes. *Criminal behaviour and mental health* : CBMH, 21(2), 90–98. <https://doi.org/10.1002/cbm.801>
- Favieri, F., Marini, A., & Casagrande, M. (2021). Emotional Regulation and Overeating Behaviors in Children and Adolescents: A Systematic Review. *Behavioral sciences (Basel, Switzerland)*, 11(1), 11. <https://doi.org/10.3390/bs11010011>
- Fazel, M., Hoagwood, K., Stephan, S., & Ford, T. (2014). Mental health interventions in schools 1: Mental health interventions in schools in high-income countries. *The lancet. Psychiatry*, 1(5), 377–387. [https://doi.org/10.1016/S2215-0366\(14\)70312-8](https://doi.org/10.1016/S2215-0366(14)70312-8)
- Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health*, 14, 1-11. <https://doi.org/10.1186/s13034-020-00329-3>
- Felce, D., & Perry, J. (1995). Quality of life: Its definition and measurement. *Research in Developmental Disabilities*, 16(1), 51–74. [https://doi.org/10.1016/0891-4222\(94\)00028-8](https://doi.org/10.1016/0891-4222(94)00028-8)
- Feldman, A. F., & Matjasko, J. L. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research*, 75(2), 159-210. <https://doi.org/10.3102/00346543075002159>
- Feldman, A. F., & Matjasko, J. L. (2007). Profiles and portfolios of adolescent school-based extracurricular activity participation. *Journal of Adolescence*, 30(2), 313–332. <https://doi.org/10.1016/j.adolescence.2006.03.004>
- Fenwick-Smith, A., Dahlberg, E. E., & Thompson, S. C. (2018). Systematic review of resilience-enhancing, universal, primary school-based mental health promotion programs. *Bmc Psychology*, 6(1), 1-17.
- Fenwick-Smith, A., Dahlberg, E. E., & Thompson, S. C. (2018). Systematic review of resilience-enhancing, universal, primary school-based mental health promotion programs. *Bmc Psychology*, 6(1), 1-17. <https://doi.org/10.1186/s40359-018-0242-3>
- Fergusson, D. M., McLeod, G. F., Horwood, L. J., Swain, N. R., Chapple, S., & Poulton, R. (2015). Life satisfaction and mental health problems (18 to 35 years). *Psychological medicine*, 45(11), 2427–2436. <https://doi.org/10.1017/S0033291715000422>
- Finland Ministry of Education and Culture (2021). Pupil and Student Welfare. <https://okm.fi/en/pupil-and-student-welfare>
- Finne, E., Bucksch, J., Lampert, T., & Kolip, P. (2013). Physical activity and screen-based media use: cross-sectional associations with health-related quality of life and the role of body satisfaction in a representative sample of German adolescents. *Health Psychology and Behavioral Medicine: An Open Access Journal*, 1(1), 15-30. <https://doi.org/10.1080/21642850.2013.809313>
- Flaspohler, P. D., Elfstrom, J. L., Vanderzee, K. L., Sink, H. E., & Birchmeier, Z. (2009). Stand by me: The effects of peer and teacher support in mitigating the impact of bullying on quality of life. *Psychology in the Schools*, 46(7), 636–649. <https://doi.org/10.1002/pits.20404>
- Flay, B. R., Graulich, S., Segawa, E., Burns, J. L., Holliday, M. Y., & Aban Aya Investigators (2004). Effects of 2 prevention programs on high-risk behaviors among African American youth: a randomized trial. *Archives of pediatrics & adolescent medicine*, 158(4), 377–384. <https://doi.org/10.1001/archpedi.158.4.377>
- Flèche, S., Lekfuangfu, W. N., & Clark, A. E. (2019). The long-lasting effects of family and childhood on adult wellbeing: Evidence from British cohort data. *Journal of Economic Behavior & Organization*.
- Fletcher, A., Bonell, C., & Hargreaves, J. (2008). School effects on young people's drug use: a systematic review of intervention and observational studies. *The Journal of adolescent health* : official publication of the Society for Adolescent Medicine, 42(3), 209–220. <https://doi.org/10.1016/j.jadohealth.2007.09.020>
- Flouri, E., & Buchanan, A. (2002). Life satisfaction in teenage boys: The moderating role of father involvement and bullying. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression*, 28(2), 126-133. <https://doi.org/10.1002/AB.90014>
- Ford, T., Degli Esposti, M., Crane, C., Taylor, L., Montero-Marín, J., Blakemore, S.-J., . . . Kuyken, W. (2021). The Role of Schools in Early Adolescents' Mental Health: Findings From the MYRIAD Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(12), 1467-1478. doi:<https://doi.org/10.1016/j.jaac.2021.02.016>
- Ford, T., Degli Esposti, M., Crane, C., Taylor, L., Montero-Marín, J., Blakemore, S.-J., Bowes, L., Byford, S., Dalglish, T., Greenberg, M. T., Nuthall, E., Phillips, A., Raja, A., Ukoumunne, O. C., Viner, R. M., Williams, J. M. G., Allwood, M., Aukland, L., Casey, T., ... Kuyken, W.

- (2021). The Role of Schools in Early Adolescents' Mental Health: Findings From the MYRIAD Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(12), 1467–1478. <https://doi.org/10.1016/j.jaac.2021.02.016>
- Ford, T., John, A., & Gunnell, D. (2021). Mental health of children and young people during pandemic. *BMJ (Clinical research ed.)*, 372, n614. <https://doi.org/10.1136/bmj.n614>
- Foulkes, L., & Blakemore, S. J. (2018). Studying individual differences in human adolescent brain development. *Nature neuroscience*, 21(3), 315–323.
- Frailon, J. (2004). Measuring student well-being in the context of Australian schooling : discussion paper. Curriculum Corporation. [https://research.acer.edu.au/well\\_being/8](https://research.acer.edu.au/well_being/8)
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2016). Relationship between school-wide positive behavior interventions and supports and academic, attendance, and behavior outcomes in high schools. *Journal of Positive Behavior Interventions*, 18(1), 41–51. <https://doi.org/10.1177/1098300715580992>
- Fullard, J., & Zuccollo, J. (2021). Local Pay and Teacher Retention in England. Education Policy Institute. <https://epi.org.uk/wp-content/uploads/2021/05/EPI-Local-teacher-labour-markets-2021.pdf>.
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, 63(1), 103–115. <https://doi.org/10.2307/1130905>
- Gadermann, A. M., Guhn, M., Schonert-Reichl, K. A., Hymel, S., Thomson, K., & Hertzman, C. (2016). A population-based study of children's well-being and health: The relative importance of social relationships, health-related activities, and income. *Journal of Happiness Studies*, 17(5), 1847–1872. <https://doi.org/10.1007/s10902-015-9673-1>
- Gaffney, H., Ttoli, M. M., & Farrington, D. P. (2019). Evaluating the effectiveness of school-bullying prevention programs: An updated meta-analytical review. *Aggression and Violent Behavior*, 45, 111–133. <https://doi.org/10.1016/j.avb.2018.07.001>
- Galinha, I. C., & Pais-Ribeiro, J. L. (2012). Cognitive, affective and contextual predictors of subjective well-being. *International Journal of Wellbeing*, 2(1). <https://doi.org/10.5502/ijw.v2i1.3>
- Galton, M., & MacBeath, J. (2008). *Teachers Under Pressure*. Sage. <http://dx.doi.org/10.4135/9781849208413>
- García Bacete F.J., Marande Perrin G., Schneider B.H., Blanchard C. (2014) Effects of School on the Well-Being of Children and Adolescents. In: Ben-Arieh A., Casas F., Frønes I., Korbin J. (eds) *Handbook of Child Well-Being* (pp 1251–1305). Springer, Dordrecht. [https://doi.org/10.1007/978-90-481-9063-8\\_149](https://doi.org/10.1007/978-90-481-9063-8_149)
- García-Carrión, R., Villarejo-Carballido, B., & Villardón-Gallego, L. (2019). Children and Adolescents Mental Health: A Systematic Review of Interaction-Based Interventions in Schools and Communities. *Frontiers in Psychology*, 10, 918. <https://doi.org/10.3389/fpsyg.2019.00918>
- García-Moya, I., Moreno, C., & Brooks, F. M. (2019). The 'balancing acts' of building positive relationships with students: Secondary school teachers' perspectives in England and Spain. *Teaching and Teacher Education*, 86, 102883. <https://doi.org/10.1016/j.tate.2019.102883>
- Garcia, D. (2011). Two models of personality and well-being among adolescents. *Personality and Individual Differences*, 50(8), 1208–1212. <https://doi.org/10.1016/j.paid.2011.02.009>
- Garnezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*, 55(1), 97–111. <https://doi.org/10.2307/1129837>
- Garrard, W. M., & Lipsey, M. W. (2007). Conflict resolution education and antisocial behavior in U.S. schools: A meta-analysis. *Conflict Resolution Quarterly*, 25(1), 9–38. <https://doi.org/10.1002/crq.188>
- Gartland, D., Riggs, E., Muyeen, S., Giallo, R., Afifi, T. O., MacMillan, H., Herrman, H., Bulford, E., & Brown, S. J. (2019). What factors are associated with resilient outcomes in children exposed to social adversity? A systematic review. *BMJ Open*, 9(4), e024870. <https://doi.org/10.1136/bmjopen-2018-024870>
- Gaspar, M. J. M., Amaral, T. F., Oliveira, B. M., & Borges, N. (2011). Protective effect of physical activity on dissatisfaction with body image in children—A cross-sectional study. *Psychology of Sport and Exercise*, 12(5), 563–569. <https://doi.org/10.1016/j.psychsport.2011.05.004>
- Gerard, J. M., & Buehler, C. (2004). Cumulative Environmental Risk and Youth Maladjustment: The Role of Youth Attributes. *Child Development*, 75(6), 1832–1849. <https://doi.org/10.1111/j.1467-8624.2004.00820.x>
- Giattino, C., Ortiz-Ospina, E., & Roser, M. (2013). Working Hours. : <https://ourworldindata.org/working-hours> [Online Resource]
- Gibbons, S., & Silva, O. (2011). School quality, child wellbeing and parents' satisfaction. *Economics of Education Review*, 30(2), 312–331. <https://doi.org/10.1016/j.econedurev.2010.11.001>

- Giedd, J. N., Blumenthal, J., Jeffries, N. O., Castellanos, F. X., Liu, H., Zijdenbos, A., ... & Rapoport, J. L. (1999). Brain development during childhood and adolescence: a longitudinal MRI study. *Nature neuroscience*, 2(10), 861-863.
- Gill, A., Trask-Kerr, K., & Vella-Brodrick, D. (2021). Systematic Review of Adolescent Conceptions of Success: Implications for Wellbeing and Positive Education. *Educational Psychology Review*, 33, 1553–1582, <https://doi.org/10.1007/s10648-021-09605-w>
- Gilman, R., & Anderman, E. M. (2006). The relationship between relative levels of motivation and intrapersonal, interpersonal, and academic functioning among older adolescents.
- Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*, 35(3), 293-301. <https://doi.org/10.1007/s10964-006-9036-7>
- Gilman, R., & Huebner, S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly*, 18(2), 192–205. <https://doi.org/10.1521/scpq.18.2.192.21858>
- Gireesh, A., Das, S., & Viner, R. M. (2018). Impact of health behaviours and deprivation on well-being in a national sample of English young people. *BMJ Paediatrics Open*, 2(1). <https://doi.org/10.1136/bmjpo-2018-000335>
- GIRFEC (2021). Getting it Right for Every Child. Scottish Government. <https://www.gov.scot/policies/girfec/wellbeing-indicators-shanarri/>
- Glazzard, Jonathan & Rose, Anthea. (2019). The impact of teacher well-being and mental health on pupil progress in primary schools. *Journal of Public Mental Health*. <https://doi.org/10.1108/JPMH-02-2019-0023>
- Glew, G. M., Fan, M. Y., Katon, W., & Rivara, F. P. (2008). Bullying and school safety. *The Journal of Pediatrics*, 152(1), 123-128. <https://doi.org/10.1016/j.jpeds.2007.05.045>
- Glick, M., & Zigler, E. F. (1990). Premorbid competence and the courses and outcomes of psychiatric disorders. In J. E. Rolf, A. S. Masten, D. Cicchetti, K. H. Nuechterlein, & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 497–513). Cambridge University Press. <https://doi.org/10.1017/CBO9780511752872.028>
- Glover, S. A. O. (1998). Social environments and the emotional wellbeing of young people. *Family Matters*, (49), 11-16. <https://search.informit.org/doi/10.3316/ielapa.981111430>
- Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: a meta-analysis. *European Journal of Psychology of Education*, 34(4), 755–782. <https://doi.org/10.1007/s10212-018-0406-9>
- Goldberg, J. S., & Carlson, M. J. (2014). Parents' relationship quality and children's behavior in stable married and cohabiting families. *Journal of Marriage and Family*, 76(4), 762-777. <https://doi.org/10.1111/jomf.12120>
- Goldfeld, S., O'Connor, M., Cloney, D., Gray, S., Redmond, G., Badland, H., . . . Kochanoff, A. T. (2018). Understanding child disadvantage from a social determinants perspective. *Journal of Epidemiology and Community Health*, 72(3), 223. doi:10.1136/jech-2017-209036
- Goldschmidt K. (2020). The COVID-19 Pandemic: Technology use to Support the Wellbeing of Children. *Journal of Pediatric Nursing*, 53, 88–90. <https://doi.org/10.1016/j.pedn.2020.04.013>
- González-Carrasco, M., Casas, F., Malo, S., Viñas, F., & Dinisman, T. (2017). Changes with age in subjective well-being through the adolescent years: Differences by gender. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 18(1), 63–88. <https://doi.org/10.1007/s10902-016-9717-1>
- González, M., Gras, M. E., Malo, S., Navarro, D., Casas, F., & Aligué, M. (2015). Adolescents' perspective on their participation in the family context and its relationship with their subjective well-being. *Child Indicators Research*, 8(1), 93-109. <https://doi.org/10.1007/s12187-014-9281-3>
- Gordon Rouse, K. A., Ingersoll, G. M., & Orr, D. P. (1998). Longitudinal health endangering behavior risk among resilient and nonresilient early adolescents. *The Journal of Adolescent Health : official publication of the Society for Adolescent Medicine*, 23(5), 297–302. [https://doi.org/10.1016/s1054-139x\(98\)00019-6](https://doi.org/10.1016/s1054-139x(98)00019-6)
- Gore S., & Colten M.E. (1991) Gender, Stress, and Distress. In: Eckenrode J. (eds) *The Social Context of Coping*. The Springer Series on Stress and Coping. Springer, Boston, MA. [https://doi.org/10.1007/978-1-4899-3740-7\\_7](https://doi.org/10.1007/978-1-4899-3740-7_7)
- Goswami, H. (2012). Social relationships and children's subjective well-being. *Social Indicators Research*, 107(3), 575-588. <https://doi.org/10.1007/s11205-011-9864-z>
- Goswami, H. (2014). Children's subjective well-being: Socio-demographic characteristics and personality. *Child Indicators Research*, 7(1), 119-140. <https://doi.org/10.1007/s12187-013-9205-7>
- Gottlieb, G., Wahlsten, D., & Lickliter, R. (2006). The Significance of Biology for Human Development: A Developmental Psychobiological Systems View. In R. M.

- Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (pp. 210–257). John Wiley & Sons Inc.
- Gould, D., Feltz, D., & Weiss, M. (1985). Motives for participating in competitive youth swimming.
- Govender, K., Reardon, C., Quinlan, T., & George, G. (2014). Children's psychosocial wellbeing in the context of HIV/AIDS and poverty: a comparative investigation of orphaned and non-orphaned children living in South Africa. *BMC Public Health*, 14(1), 1-13. <https://doi.org/10.1186/1471-2458-14-615>
- Government of Ireland (2019, October). Wellbeing Policy Statement and Framework for Practice. Department of Education and Skills. <https://assets.gov.ie/24725/07cc07626f6a426eb6eab4c523fb2ee2.pdf>
- Green, J., Howes, F., Waters, E., Maher, E. and Oberklaid, F. (2005) Promoting the social and emotional health of primary school aged children: reviewing the evidence base for school based interventions. *International Journal of Mental Health Promotion*, 7(3), 30–36. <https://doi.org/10.1080/14623730.2005.9721872>
- Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders in school-aged children: Current state of the field. *Prevention & Treatment*, 4(1), Article 1a. <https://doi.org/10.1037/1522-3736.4.1.41a>
- Greenberg, M. T., Siegel, J. M., & Leitch, C. J. (1983). The nature and importance of attachment relationships to parents and peers during adolescence. *Journal of Youth and Adolescence*, 12(5), 373–386. <https://doi.org/10.1007/BF02088721>
- Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *The American Psychologist*, 58(6-7), 466–474. <https://doi.org/10.1037/0003-066x.58.6-7.466>
- Gross-Manos, D. (2017). Material well-being and social exclusion association with children's subjective well-being: Cross-national analysis of 14 countries. *Children and Youth Services Review*, 80, 116–128. <https://doi.org/10.1016/j.childyouth.2017.06.048>
- Gutman, L; Brown, J; Akerman, R; Obolenskaya, P; (2010) Change in wellbeing from childhood to adolescence: Risk and resilience [Wider Benefits of Learning Research Report No. 34]. Centre for Research on the Wider Benefits of Learning, Institute of Education, University of London: London.
- Gutman, L. M., & Vorhaus, J. (2012). The impact of pupil behaviour and wellbeing on educational outcomes. Childhood Wellbeing Research Centre, Institute of Education, University of London.
- Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M., Johnson, R., Liberman, A., Moscicki, E., Price, L., Snyder, S., Tuma, F., Cory, S., Stone, G., Mukhopadhaya, K., Chattopadhyay, S., Dahlberg, L., & Task Force on Community Preventive Services (2007). Effectiveness of universal school-based programs to prevent violent and aggressive behavior: a systematic review. *American journal of preventive medicine*, 33(2 Suppl), S114–S129. <https://doi.org/10.1016/j.amepre.2007.04.012>
- Hairston, I. S., Conroy, D. A., Heitzeg, M. M., Akbar, N. Z., Brower, K. J., & Zucker, R. A. (2016). Sleep mediates the link between resiliency and behavioural problems in children at high and low risk for alcoholism. *Journal of Sleep Research*, 25(3), 341–349. <https://doi.org/10.1111/jsr.12382>
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43(6), 495–513. <https://doi.org/10.1016/j.jsp.2005.11.001>
- Hale, D. R., Patalay, N., Fitzgerald-Yau, N., Hargreaves, D. S., Bond, L., Görzig, A., Wolpert, M., Stansfeld, S. A. & Viner, R. M. (2014). School-Level Variation in Health Outcomes in Adolescence: Analysis of Three Longitudinal Studies in England. *Prevention Science*, 15(4), 600-610. <https://doi.org/10.1007/s11121-013-0414-6>
- Hallal, P. C., Victora, C. G., Azevedo, M. R., & Wells, J. C. (2006). Adolescent physical activity and health: a systematic review. *Sports medicine (Auckland, N.Z.)*, 36(12), 1019–1030. <https://doi.org/10.2165/00007256-200636120-00003>
- Halpern, D. F. (1997). Sex differences in intelligence: Implications for education. *American Psychologist*, 52(10), 1091–1102. <https://doi.org/10.1037/0003-066X.52.10.1091>
- Hanlon, E. C., Dumin, M., & Pannain, S. (2019). Chapter 13 - Sleep and Obesity in Children and Adolescents. In E. Bagchi (Ed.), *Global Perspectives on Childhood Obesity* (pp. 147–178). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-812840-4.00013-X>
- Harding, S., Morris, R., Gunnell, D., Ford, T., Hollingworth, W., Tilling, K., Evans, R., Bell, S., Grey, J., Brockman, R., Campbell, R., Araya, R., Murphy, S., & Kidger, J. (2019). Is teachers' mental health and wellbeing associated with students' mental health and wellbeing?. *Journal of Affective Disorders*, 242, 180–187. <https://doi.org/10.1016/j.jad.2018.08.080>
- Harel-Fisch, Y., Walsh, S. D., Fogel-Grinvald, H., Amitai, G., Pickett, W., Molcho, M., Due, P., de Matos, M. G., Craig, W., & Members of the HBSC Violence and Injury Prevention Focus Group (2011). Negative school

- perceptions and involvement in school bullying: a universal relationship across 40 countries. *Journal of Adolescence*, 34(4), 639–652. <https://doi.org/10.1016/j.adolescence.2010.09.008>
- Harel, Y. (1999). A cross-national study of youth violence in Europe. *International Journal of Adolescent Medicine and Health*, 11(3-4), 121-134. <https://doi.org/10.1515/IJAMH.1999.11.3-4.121>
- Harrison, J. R., Bunford, N., Evans, S. W., & Owens, J. S. (2013). Educational Accommodations for Students With Behavioral Challenges: A Systematic Review of the Literature. *Review of Educational Research*, 83(4), 551–597. <https://doi.org/10.3102/0034654313497517>
- Hascher, T. (2012). Well-Being and Learning. In N. M. Seel (Ed.), *Encyclopedia of the Sciences of Learning* (pp. 3453–3456). [https://doi.org/10.1007/978-1-4419-1428-6\\_1832](https://doi.org/10.1007/978-1-4419-1428-6_1832)
- Hawke, L. D., Monga, S., Korczak, D., Hayes, E., Relihan, J., Darnay, K., Cleverley, K., Lunskey, Y., Szatmari, P., & Henderson, J. (2020). Impacts of the COVID-19 pandemic on youth mental health among youth with physical health challenges. *Early Intervention in Psychiatry* 15(5), 1146-1153. <https://doi.org/10.1111/eip.13052>
- Hawkins, J. D., Kosterman, R., Catalano, R. F., Hill, K. G., & Abbott, R. D. (2005). Promoting positive adult functioning through social development intervention in childhood: long-term effects from the Seattle Social Development Project. *Archives of Pediatrics & Adolescent Medicine*, 159(1), 25–31. <https://doi.org/10.1001/archpedi.159.1.25>
- Haynes, N. M., Comer, J. P. (1990). The effects of a school development program on self-concept. *Yale Journal of Biology & Medicine*, 63(4), 275-283.
- Helliwell, J., Layard, R., and Sachs J., eds. (2012). *World Happiness Report 2012*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2013). *World Happiness Report 2013*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2015). *World Happiness Report 2015*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2016). *World Happiness Report 2016, Update (Vol. I)*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2017). *World Happiness Report 2017*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2018). *World Happiness Report 2018*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., and Sachs J., eds. (2019). *World Happiness Report 2019*. New York: Sustainable Development Solutions Network.
- Helliwell, J., Layard, R., Sachs J., and De Neve, J. eds. (2020). *World Happiness Report 2020*. New York: Sustainable Development Solutions Network.
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466(7302), 29. <https://doi.org/10.1038/466029a>
- Herd, T., & Kim-Spoon, J. (2021). A Systematic Review of Associations Between Adverse Peer Experiences and Emotion Regulation in Adolescence. *Clinical Child and Family Psychology Review*, 24(1), 141–163. <https://doi.org/10.1007/s10567-020-00337-x>
- Hobel, C. J., Dunkel-Schetter, C., Roesch, S. C., Castro, L. C., & Arora, C. P. (1999). Maternal plasma corticotropin-releasing hormone associated with stress at 20 weeks' gestation in pregnancies ending in preterm delivery. *American Journal of Obstetrics and Gynecology*, 180(1 Pt 3), S257–S263. [https://doi.org/10.1016/s0002-9378\(99\)70712-x](https://doi.org/10.1016/s0002-9378(99)70712-x)
- Hofman, R. H., Hofman, W. A., & Guldmond, H. (1999). Social and cognitive outcomes: A comparison of contexts of learning. *School Effectiveness and School Improvement*, 10(3), 352-366. <https://doi.org/10.1076/1076-1033.1999.10.3.352.3499>
- Hong, L., Yufeng, W., Agho, K., & Jacobs, J. (2011). Preventing behavior problems among elementary schoolchildren: impact of a universal school-based program in China. *Journal of School Health*, 81(5), 273–280. <https://doi.org/10.1111/j.1746-1561.2011.00592.x>
- Howes, C., & Hamilton, C. E. (1992). Children's relationships with caregivers: Mothers and child care teachers. *Child Development*, 63(4), 859-866. <https://doi.org/10.2307/1131238>
- Huebner, E. S. (1991). Initial development of the student's life satisfaction scale. *School Psychology International*, 12(3), 231-240. <https://doi.org/10.1177/0143034391123010>
- Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment*, 6(2), 149. <https://doi.org/10.1037/1040-3590.6.2.149>
- Huebner, E. S., & Gilman, R. (2002). An introduction to the multidimensional students' life satisfaction scale. *Social Indicators Research*, 60(1), 115-122. <https://doi.org/10.1023/A:1021252812882>
- Huebner, E. S., Drane, W., & Valois, R. F. (2000). Levels and Demographic Correlates of Adolescent Life Satisfaction Reports. *School Psychology*

- International, 21(3), 281–292. <https://doi.org/10.1177/0143034300213005>
- Huebner, E. S., Gilman, R., & Laughlin, J. E. (1999). A multimethod investigation of the multidimensionality of children's well-being reports: Discriminant validity of life satisfaction and self-esteem. *Social Indicators Research*, 46(1), 1–22. <https://doi.org/10.1023/A:1006821510832>
- Huebner, E. S., Laughlin, J. E., Ash, C., & Gilman, R. (1998). Further validation of the multidimensional students' life satisfaction scale. *Journal of Psychoeducational Assessment*, 16(2), 118–134. <https://doi.org/10.1177/073428299801600202>
- Huebner, E. S., Suldo, S. M., & Gilman, R. (2006). Life Satisfaction. In G. G. Bear & K. M. Minke (Eds.), *Children's Needs III: Development, Prevention, and Intervention* (pp. 357–368). National Association of School Psychologists.
- Huebner, E. S., Suldo, S. M., Smith, L. C., & McKnight, C. G. (2004). Life Satisfaction in Children and Youth: Empirical Foundations and Implications for School Psychologists. *Psychology in the Schools*, 41(1), 81–93. <https://doi.org/10.1002/pits.10140>
- Huebner, E. S., Suldo, S., Valois, R. F., Drane, J. W., & Zullig, K. (2004). Brief multidimensional students' life satisfaction scale: sex, race, and grade effects for a high school sample. *Psychological Reports*, 94(1), 351–356. <https://doi.org/10.2466/pr0.94.1.351-356>
- Hughes, B. (2013). *Evolutionary Playwork and Reflective Analytic Practice*. London: Routledge. <https://doi.org/10.4324/9780203478653>
- Hughes, J. N., & Im, M. H. (2016). Teacher–student relationship and peer disliking and liking across grades 1–4. *Child Development*, 87(2), 593–611. <https://doi.org/10.1111/cdev.12477>
- Hughes, J. N., Luo, W., Kwok, O. M., & Loyd, L. K. (2008). Teacher-Student Support, Effortful Engagement, and Achievement: A 3-Year Longitudinal Study. *Journal of educational psychology*, 100(1), 1–14. <https://doi.org/10.1037/0022-0663.100.1.1>
- Hummel, S., Naylor, P., Chilcott, J., Guillaume, L., Wilkinson, A., Blank, L., Baxter, S., & Goyder, L. (2009). Cost effectiveness of universal interventions which aim to promote emotional and social wellbeing in secondary schools. University of Sheffield. Sheffield, UK
- Humphrey, N., Hennessey, A., Ashworth, E., Wo, L., Frearson, K., Petersen, K., Panayiotou, M., Lendrum, A., Wigelsworth, M., Birchinnall, E., Squires, G., & Pampaka, M. (2018). Good Behaviour Game Evaluation report and executive summary. Education Endowment Foundation. [https://educationendowmentfoundation.org.uk/public/files/GBG\\_evaluation\\_report.pdf](https://educationendowmentfoundation.org.uk/public/files/GBG_evaluation_report.pdf)
- Humphrey, N., Hennessey, A., Lendrum, A., Wigelsworth, M., Turner, A., Panayiotou, M., Joyce, C., Pert, K., Stephens, E., Wo, L., Squires, G., Woods, K., Harrison, M. & Calam, R. (2018). The PATHS curriculum for promoting social and emotional well-being among children aged 7–9 years: a cluster RCT. *Public Health Research*, 6(10). [hhttps://www.ncbi.nlm.nih.gov/books/NBK519674/doi:10.3310/phr06100](https://www.ncbi.nlm.nih.gov/books/NBK519674/doi:10.3310/phr06100)
- Humphrey, N., Lendrum, A., & Wigelsworth, M. (2013). Making the most out of school-based prevention: Lessons from the social and emotional aspects of learning (SEAL) programme. *Emotional and Behavioural Difficulties*, 18(3), 248–260. <https://doi.org/10.1080/13632752.2013.819251>
- Huppert, F. A. (2005). Positive mental health in individuals and populations. In F. A. Huppert, N. Baylis, & B. Keverne, *The Science of Well-being* (pp. 307–340). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198567523.003.0012>
- Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-being*, 1(2), 137–164. <https://doi.org/10.1111/j.1758-0854.2009.01008.x>
- Hurry, J., Carroll, C., Bonell, C., Deighton, J. (2021), The role of schools in the mental health of children & young people. British Educational Research Association. <https://www.bera.ac.uk/publication/the-role-of-schools-in-the-mental-health-of-children-young-people>.
- Huttenlocher, J., Smiley, P., & Ratner, H. (1983). What do word meanings reveal about conceptual development?. In *Concept development and the development of word meaning* (pp. 210–233). Springer, Berlin, Heidelberg.
- Huttenlocher, P. R. (1979). Synaptic density in human frontal cortex-developmental changes and effects of aging. *Brain Res*, 163(2), 195–205.
- Iannotti, R. J., Kogan, M. D., Janssen, I., & Boyce, W. F. (2009). Patterns of adolescent physical activity, screen-based media use, and positive and negative health indicators in the U.S. and Canada. *The Journal of Adolescent Health*, 44(5), 493–499. <https://doi.org/10.1016/j.jadohealth.2008.10.142>
- Inchley, J., Currie, D., Budisavljevic, S., Torsheim, T., Jåstad, A., Cosma, A., Kelly, C., Arnarsson, A. M., Barnekow, V., & Weber, M. M. (eds.). (2020). Spotlight on adolescent health and well-being. Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) survey in Europe and Canada. International report. Volume 1. Key Findings. WHO Regional Office for Europe, (pp. ix – 58). <https://www.euro.who.int/en/publications/abstracts/spotlight-on-adolescent-health-and-well-being.-findings-from-the-20172018-health-behaviour-in-school-aged->

children-hbsc-survey-in-europe-and-canada.-international-report.-volume-1.-key-findings

Innocenti, G. M., & Price, D. J. (2005). Exuberance in the development of cortical networks. *Nature Reviews Neuroscience*, 6(12), 955-965.

*International Journal of Sport Psychology*, 16(2), 126–140.

Jach, H. K., Sun, J., Loton, D., Chin, T. C., & Waters, L. E. (2018). Strengths and subjective wellbeing in adolescence: Strength-based parenting and the moderating effect of mindset. *Journal of Happiness Studies*, 19(2), 567-586. <https://doi.org/10.1007/s10902-016-9841-y>

Jackson, M. (2010). A Life Course Perspective on Child Health, Cognition and Occupational Skill Qualifications in Adulthood: Evidence from a British Cohort. *Social Forces*, 89(1), 89-116. <http://dx.doi.org/10.1353/sof.2010.0101>

Jackson, M. (2015). Cumulative Inequality in Child Health and Academic Achievement. *Journal of Health and Social Behavior*, 56(2), 262-80. <http://dx.doi.org/10.1177/0022146515581857>

Jacob, B. A., & Ryan, J. (2018). How life outside of a school affects student performance in school. *Economic Studies at Brookings*. <https://www.brookings.edu/research/how-life-outside-of-a-school-affects-student-performance-in-school/>

James, S., & Hale, L. (2017). Sleep duration and child well-being: A nonlinear association. *Journal of Clinical Child and Adolescent Psychology*, 46(2), 258–268. <https://doi.org/10.1080/15374416.2016.1204920>

Jeffery, M., Gilleard, A., Lereya, T., Edbrooke-Childs, J., Deighton, J., & Cortina, M. A. (2020). Emerging Evidence: Coronavirus and children and young people's mental health. <https://www.annafreud.org/media/12234/coronavirus-emerging-evidence-3-final.pdf>

Jelleyman, T., & Spencer, N. (2008). Residential mobility in childhood and health outcomes: a systematic review. *Journal of Epidemiology and Community Health*, 62(7), 584–592. <https://doi.org/10.1136/jech.2007.060103>

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79(1), 491–525. <https://doi.org/10.3102/0034654308325693>

Jerrim, J., Lopez-Agudo, L. A., Marcenaro-Gutierrez, O. D., & Shure, N. (2017). What happens when econometrics and psychometrics collide? An example using the PISA data. *Economics of Education Review*, Elsevier, 61, 51–58. <https://doi.org/10.1016/j.econedurev.2017.09.007>

Jia, Y., Way, N., Ling, G., Yoshikawa, H., Chen, X., Hughes, D., Ke, X., & Lu, Z. (2009). The influence of student perceptions of school climate on socioemotional and academic adjustment: A comparison of Chinese and American adolescents. *Child Development*, 80(5), 1514-1530. <https://doi.org/10.1111/j.1467-8624.2009.01348.x>

Johnson, S. M., Berg, J. H., Donaldson, M. L. (2005). Who stays in teaching and why: A review of the literature on teacher retention. Washington, DC: NRTA.

Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology*, 20(2), 178–187. <https://doi.org/10.1108/02683940510579803>

Johnson, S., Harrison J., Donaldson, M. (2005). Who Stays in Teaching and Why: A Review of the Literature on Teacher Retention. NRTA's Educator Support Network.

*Journal of Educational Psychology*, 108(8), 1193–1203. <https://doi.org/10.1037/edu0000125>

*Journal of School Psychology*, 44(5), 375–391. <https://doi.org/10.1016/j.jsp.2006.03.004>

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, 107(38), 16489-16493. <https://doi.org/10.1073/pnas.1011492107>

Kaiser, A. (2015). Emotional maltreatment as predictor of mental health problems among adolescents: Moderating role of optimism. *Journal of Behavioural Sciences*, 25(2), 129.

Kalak, N., Lemola, S., Brand, S., Holsboer-Trachsler, E., & Grob, A. (2014). Sleep duration and subjective psychological well-being in adolescence: a longitudinal study in Switzerland and Norway. *Neuropsychiatric disease and treatment*, 10, 1199–1207. <https://doi.org/10.2147/NDT.S62533>

Kaplan, J. L. F. (2020, July 11). A third of the global population is on coronavirus lockdown — here's our constantly updated list of countries. *Business Insider*. <https://www.businessinsider.in/international/news/a-third-of-the-global-population-is-on-coronavirus-lockdown-x2014-hereaposs-our-constantly-updated-list-of-countries-and-restrictions/slidelist/75208623.cms>

Karatzias, A., Power, K. G., & Swanson, V. (2001). Quality of school life: Development and preliminary standardisation of an instrument based on performance indicators in Scottish secondary schools.

Kaufman, A. R., & Augustson, E. M. (2008). Predictors of regular cigarette smoking among adolescent females: does body image matter?. *Nicotine & Tobacco Research*,

- 10(8), 1301–1309. <https://doi.org/10.1080/14622200802238985>
- Keresteš, G., Brković, I., & Jagodić, G. K. (2012). Predictors of psychological well-being of adolescents' parents. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 13(6), 1073–1089. <https://doi.org/10.1007/s10902-011-9307-1>
- Kessels, U., Heyder, A., Latsch, M., & Hannover, B. (2014). How gender differences in academic engagement relate to students' gender identity.
- Kessler, R. C., Angermeyer, M., Anthony, J. C., De Graaf, R. O. N., Demyttenaere, K., Gasquet, I., de Girolamo, G., Guzman, S., Gureje, O., Haro, J. M., Kawakami, N., Karam, A., Levinson, D., Mora, M. E., Browne, O., Posada-Villa, J., Stein, D., Tsang, C. H., Aguilar-Gaxiola, S.,... Uestuen, T. B. (2007). Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry*, 6(3), 168.
- Keyes, C. L. M. (2005). Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health. *Journal of Consulting and Clinical Psychology*, 73(3), 539–548. <https://doi.org/10.1037/0022-006X.73.3.539>
- Khawaja, N. G., Ibrahim, O., & Schweitzer, R. D. (2017). Mental wellbeing of students from refugee and migrant backgrounds: The mediating role of resilience.
- Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The effect of the school environment on the emotional health of adolescents: a systematic review. *Pediatrics*, 129(5), 925–949.
- Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., Rohde, L. A., Srinath, S., Ulkuer, N., & Rahman, A. (2011). Child and adolescent mental health worldwide: evidence for action. *Lancet (London, England)*, 378(9801), 1515–1525. [https://doi.org/10.1016/S0140-6736\(11\)60827-1](https://doi.org/10.1016/S0140-6736(11)60827-1)
- Kim, J., Gozal, D., Bhattacharjee, R., & Kheirandish-Gozal, L. (2013). TREM-1 and pentraxin-3 plasma levels and their association with obstructive sleep apnea, obesity, and endothelial function in children. *Sleep*, 36(6), 923–931. <https://doi.org/10.5665/sleep.2726>
- Kim, S., & Main, G. (2017). Comparing child subjective well-being in South Korea and the UK: Testing an ecological systems approach. *Child Indicators Research*, 10(1), 19–32. <https://doi.org/10.1007/s12187-016-9373-3>
- Kind, M., & Haisken-DeNew, J. P. (2012). Unexpected victims: How parents' unemployment affects their children's life satisfaction. Melbourne Institute of Applied Economic and Social Research, The University of Melbourne. <https://melbourneinstitute.unimelb.edu.au/publications/working-papers/search/result?paper=2156375>
- Kleszczewska, D., Dzielska, A., Salonna, F., & Mazur, J. (2018). The Association Between Physical Activity and General Life Satisfaction in Lower Secondary School Students: The Role of Individual and Family Factors. *Community mental health journal*, 54(8), 1245–1252. <https://doi.org/10.1007/s10597-018-0309-x>
- Klocke, A., Clair, A., and Bradshaw, J. (2014). International variation in child subjective well-being. *Child Indicat. Res.* 7, 1–20. <https://doi.org/10.1007/s12187-013-9213-7>
- Klusmann, Uta & Richter, Dirk & Lütke, Oliver. (2016). Teachers' Emotional Exhaustion Is Negatively Related to Students' Achievement: Evidence From a Large-Scale Assessment Study.
- Knies, G. (2012). Life satisfaction and material well-being of children in the UK (No. 2012-15). ISER Working Paper Series. <https://www.iser.essex.ac.uk/research/publications/working-papers/iser/2012-15/>
- Knight, F., & Dimitriou, D. (2019). Poor Sleep Has Negative Implications for Children With and Without ADHD, but in Different Ways. *Behavioral sleep medicine*, 17(4), 423–436. <https://doi.org/10.1080/15402002.2017.1395335>
- Kocayörük, E., Altıntaş, E., & İçbay, M. A. (2015). The perceived parental support, autonomous-self and well-being of adolescents: A cluster-analysis approach. *Journal of Child and Family Studies*, 24(6), 1819–1828. <https://doi.org/10.1007/s10826-014-9985-5>
- Komro, K. A., Perry, C. L., Veblen-Mortenson, S., Stigler, M. H., Bosma, L. M., Munson, K. A., & Farbaksh, K. (2004). Violence-related outcomes of the D.A.R.E. plus project. *Health education & behavior : the official publication of the Society for Public Health Education*, 31(3), 335–354. <https://doi.org/10.1177/1090198104263337>
- Konu, A. I., Lintonen, T. P., & Autio, V. J. (2002). Evaluation of well-being in schools--A multilevel analysis of general subjective well-being. *School Effectiveness and School Improvement*, 13(2), 187–200. <https://doi.org/10.1076/sesi.13.2.187.3432>
- Korpershoek, H., Canrinus, E. T., Fokkens-Bruinsma, M., & de Boer, H. (2020). The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: A meta-analytic review. *Research Papers in Education*, 35(6), 641–680. <https://doi.org/10.1080/02671522.2019.1615116>
- Kuosmanen, T., Clarke, A. M., & Barry, M. M. (2019). Promoting adolescents' mental health and wellbeing:

- evidence synthesis. *Journal of Public Mental Health*, 18(104). <https://doi.org/10.1108/JPMH-07-2018-0036>
- Kutsar, D., & Kasearu, K. (2017). Do children like school–Crowding in or out? International comparison of children's perspectives. *Children and Youth Services Review*, 80, 140-148. <https://doi.org/10.1016/j.childyouth.2017.06.052>
- Kutsyuruba, B., Klinger, D. A., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. *Review of Education*, 3(2), 103-135. <https://doi.org/10.1002/rev3.3043>
- Kuyken, W., Nuthall, E., Byford, S. et al. (2017). The effectiveness and cost-effectiveness of a mindfulness training programme in schools compared with normal school provision (MYRIAD): study protocol for a randomised controlled trial. *Trials*, 18, 194. <https://doi.org/10.1186/s13063-017-1917-4>
- Kvalem, I. L., von Soest, T., Træen, B., & Singsaas, K. (2011). Body evaluation and coital onset: A population-based longitudinal study. *Body Image*, 8(2), 110-118. doi:<https://doi.org/10.1016/j.bodyim.2011.02.001>
- Kyndt, E., Raes, E., Lismont, B., Timmers, F., Cascallar, E., & Dochy, F. (2013). A meta-analysis of the effects of face-to-face cooperative learning. Do recent studies falsify or verify earlier findings?. *Educational Research Review*, 10, 133-149. <https://doi.org/10.1016/j.edurev.2013.02.002>
- Kyriacou, C., Ellingsen, I. T., Stephens, P., & Sundaram, V. (2009). Social pedagogy and the teacher: England and Norway compared. *Pedagogy, Culture & Society*, 17(1), 75-87. doi:10.1080/14681360902742902
- Kyriacou, C., Kunc, R., Stephens, P., & Hultgern, A. G. (2003). Student teachers' expectations of teaching as a career in England and Norway. *Educational Review*, 55(3), 255-263. <https://doi.org/10.1080/0013191032000118910>
- La Marca-Ghaemmaghami, P., Dainese, S. M., Stalla, G., Haller, M., Zimmermann, R., & Ehlert, U. (2017). Second-trimester amniotic fluid corticotropin-releasing hormone and urocortin in relation to maternal stress and fetal growth in human pregnancy. *Stress (Amsterdam, Netherlands)*, 20(3), 231-240. <https://doi.org/10.1080/10253890.2017.1312336>
- Lacy, K. E., Allender, S. E., Kremer, P. J., de Silva-Sanigorski, A. M., Millar, L. M., Moodie, M. L., Mathews, L. B., Malakellis, M., & Swinburn, B. A. (2012). Screen time and physical activity behaviours are associated with health-related quality of life in Australian adolescents. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation*, 21(6), 1085-1099. <https://doi.org/10.1007/s11136-011-0014-5>
- Lai, J. C. (2009). Dispositional optimism buffers the impact of daily hassles on mental health in Chinese adolescents. *Personality and Individual Differences*, 47(4), 247-249. <https://doi.org/10.1016/J.PAID.2009.03.007>
- Lambert, L., Lomas, T., van de Weijer, M. P., Passmore, H. A., Joshanloo, M., Harter, J., Ishikawa, Y., Lai, A., Kitagawa, T., Chen, D., Kawakami, T., Miyata, H., & Diener, E. (2020). Towards a greater global understanding of wellbeing: A proposal for a more inclusive measure. *International Journal of Wellbeing*, 10(2), 1-18. doi:10.5502/ijw.v10i2.1037
- Land K.C., Lamb V.L. (2014). Child and Youth Well-Being Index (CWI). In: Michalos A.C. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Dordrecht. [https://doi.org/10.1007/978-94-007-0753-5\\_3316](https://doi.org/10.1007/978-94-007-0753-5_3316).
- Langer, D. A., Wood, J. J., Wood, P. A., Garland, A. F., Landsverk, J., & Hough, R. L. (2015). Mental Health Service Use in Schools and Non-School-Based Outpatient Settings: Comparing Predictors of Service Use. *School Mental Health*, 7(3), 161-173. <https://doi.org/10.1007/s12310-015-9146-z>
- Langford, R., Bonell, C. P., Jones, H. E., Poulou, T., Murphy, S. M., Waters, E., Komro, K. A., Gibbs, L. F., Magnus, D., & Campbell, R. (2014). The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *The Cochrane Database of Systematic Reviews*, (4), CD008958. <https://doi.org/10.1002/14651858.CD008958.pub2>
- Langford, R., Bonell, C., Jones, H., Poulou, T., Murphy, S., Waters, E., Komro, K., Gibbs, L., Magnus, D., & Campbell, R. (2015). The World Health Organization's Health Promoting Schools framework: a Cochrane systematic review and meta-analysis. *BMC public health*, 15, 130. <https://doi.org/10.1186/s12889-015-1360-y>
- Lansford, J. E. (2018). A lifespan perspective on subjective well-being. *Handbook of Well-Being*. Salt Lake City, UT: DEF Publishers.
- Lau, M., & Bradshaw, J. (2018). Material well-being, social relationships and children's overall life satisfaction in Hong Kong. *Child Indicators Research*, 11(1), 185-205. <https://doi.org/10.1007/s12187-016-9426-7>
- Lawler, J. M., Koss, K. J., Doyle, C. M., & Gunnar, M. R. (2016). The course of early disinhibited social engagement among post-institutionalized adopted children. *Journal of Child Psychology and Psychiatry*, 57(10), 1126-1134. <https://doi.org/10.1111/jcpp.12606>
- Lawler, M. J., Newland, L. A., Giger, J. T., Roh, S., & Brockevelt, B. (2016). Ecological, Relationship-Based Model of Children's Subjective Well-Being: Perspectives of 10-Year-Old Children in the United States and 10

- Other Countries. *Child Indicators Research*, 10, 1-18. <https://doi.org/10.1007/s12187-016-9376-0>
- Lawton, E., Brymer, E., Clough, P., & Denovan, A. (2017). The Relationship between the Physical Activity Environment, Nature Relatedness, Anxiety, and the Psychological Well-being Benefits of Regular Exercisers. *Frontiers in Psychology*, 8, 1058. <https://doi.org/10.3389/fpsyg.2017.01058>
- Lee J. (2020). Mental health effects of school closures during COVID-19. *The Lancet. Child & Adolescent Health*, 4(6), 421. [https://doi.org/10.1016/S2352-4642\(20\)30109-7](https://doi.org/10.1016/S2352-4642(20)30109-7)
- Lee, B. J., & Yoo, M. S. (2015). Family, school, and community correlates of children's subjective well-being: An international comparative study. *Child Indicators Research*, 8(1), 151-175. <https://doi.org/10.1007/s12187-014-9285-z>
- Lee, J., & Shute, V. J. (2010). Personal and social-contextual factors in K-12 academic performance: An integrative perspective on student learning. *Educational Psychologist*, 45(3), 185–202. <https://doi.org/10.1080/00461520.2010.493471>
- Lee, Y (2009). Child rights and child well-being. The 3rd OECD World Forum on "Statistics, Knowledge and Policy" Charting Progress, Building Visions, Improving Life. Busan: Korea. <https://www.oecd.org/site/progresskorea/43785465.pdf>
- Lee, Y. (2009). Child Rights and Child Well-being, In The 3rd OECD World Forum on Statistics, Knowledge and Policy. OECD. <http://www.oecd.org/site/progresskorea/44137252.pdf>.
- Lehtinen, V., Ozamiz, A., Underwood, L., & Weiss, M. (2005). The intrinsic value of mental health. *Promoting Mental Health: Concept, Emerging Evidence, Practice*. The World Health Organization. [https://www.who.int/mental\\_health/evidence/en/promoting\\_mhh.pdf](https://www.who.int/mental_health/evidence/en/promoting_mhh.pdf)
- Lemola, S., Rääkkönen, K., Scheier, M. F., Matthews, K. A., Pesonen, A. K., Heinonen, K., Lahti, J., Komsij, N., Paavonen, J. E., & Kajantie, E. (2011). Sleep quantity, quality and optimism in children. *Journal of sleep research*, 20(1 Pt 1), 12–20. <https://doi.org/10.1111/j.1365-2869.2010.00856.x>
- Lester, L., & Cross, D. (2015). The Relationship Between School Climate and Mental and Emotional Wellbeing Over the Transition from Primary to Secondary School. *Psychology of well-being*, 5(1), 9. <https://doi.org/10.1186/s13612-015-0037-8>
- Levin, K. A., Dallago, L., & Currie, C. (2012). The association between adolescent life satisfaction, family structure, family affluence and gender differences in parent-child communication.
- LeVine, R. A. & New, R. S. (Eds.). (2008). *Anthropology and Child Development: A Cross-Cultural Reader*. Wiley-Blackwell Publishing.
- Levita, L., Miller, J. G., Hartman, T. K., Murphy, J., Shevlin, M., McBride, O., Bental, R et al., (2020). Impact of Covid-19 on young people aged 13-24 in the UK - Preliminary Findings. Report 1 (Version 2). <https://doi.org/10.31234/osf.io/uq4rn>
- Levy, S. R., & Dweck, C. S. (1999). The impact of children's static versus dynamic conceptions of people on stereotype formation. *Child Development*, 70(5), 1163–1180. <https://doi.org/10.1111/1467-8624.00085>
- Lindorff, A. (2020). Impact study: The impact of promoting student wellbeing on student academic and non-academic outcomes: An analysis of the evidence <https://oxfordimpact.oup.com/home/wellbeing-impact-study/>
- Linton, M-J., Dieppe, P., Medina-Lara, A. (2015). Review of 99 self-report measures for assessing well-being in adults: exploring dimensions of well-being and developments over time. *BMJ Open*. doi:10.1136/bmjopen-2015-010641.
- Lippman, L. H., Moore, K. A., & McIntosh, H. (2011). Positive indicators of child well-being: A conceptual framework, measures, and methodological issues. *Applied Research in Quality of Life*, 6(4), 425–449. <https://doi.org/10.1007/s11482-011-9138-6>
- Liu, W., Mei, J., Tian, L., & Huebner, E. S. (2016). Age and gender differences in the relation between school-related social support and subjective well-being in school among students. *Social Indicators Research*, 125(3), 1065–1083. <https://doi.org/10.1007/s11205-015-0873-1>
- Lordan, G. & McGuire, A. (2019). *Healthy Minds: the positive impact of a new school curriculum*. LSE Centre for Economic Performance. [https://cep.lse.ac.uk/\\_new/publications/abstract.asp?index=6296](https://cep.lse.ac.uk/_new/publications/abstract.asp?index=6296)
- Loukas, A. (2007). What is school climate. *Leadership Compass*, 5(1), 1-3. [http://www.naesp.org/sites/default/files/resources/2/Leadership\\_Compas/2007/LC2007v5n1a4.pdf](http://www.naesp.org/sites/default/files/resources/2/Leadership_Compas/2007/LC2007v5n1a4.pdf)
- Loukas, A., Suzuki, R., & Horton, K. D. (2006). Examining school connectedness as a mediator of school climate effects. *Journal of Research on Adolescence*, 16(3), 491-502. <https://doi.org/10.1111/j.1532-7795.2006.00504.x>
- Lu, L., & Gilmour, R. (2004). Culture and conceptions of happiness: Individual oriented and social oriented SWB. *Journal of happiness studies*, 5(3), 269-291.
- Lubans, D. R., Smith, J. J., Morgan, P. J., Beauchamp, M. R., Miller, A., Lonsdale, C., Parker, P., & Dally, K. (2016). Mediators of Psychological Well-being in Adolescent Boys. *The Journal of Adolescent Health: official*

- publication of the Society for Adolescent Medicine, 58(2), 230–236.  
<https://doi.org/10.1016/j.jadohealth.2015.10.010>
- Lyon, A. R., Cook, C. R., Locke, J., Davis, C., Powell, B. J., & Waltz, T. J. (2019). Importance and feasibility of an adapted set of implementation strategies in schools. *Journal of School Psychology, 76*, 66–77.  
<https://doi.org/10.1016/j.jsp.2019.07.014>
- MacDonell, K. W., & Prinz, R. J. (2017). A review of technology-based youth and family-focused interventions. *Clinical child and family psychology review, 20*(2), 185–200.
- Mackenzie, K., & Williams, C. (2018). Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. *BMJ open, 8*(9), e022560.
- Mackenzie, K., & Williams, C. (2018). Universal, school-based interventions to promote mental and emotional well-being: what is being done in the UK and does it work? A systematic review. *BMJ Open, 8*(9), e022560.  
<https://doi.org/10.1136/bmjopen-2018-022560>
- Madrid, L. D., Canas, M., & Ortega-Medina, M. (2007). Effects of team competition versus team cooperation in classwide peer tutoring. *The Journal of Educational Research, 100*(3), 155–160.  
<https://doi.org/10.3200/JOER.100.3.155-160>
- Magson, N. R., Freeman, J., Rapee, R. M., Richardson, C. E., Oar, E. L., & Fardouly, J. (2021). Risk and Protective Factors for Prospective Changes in Adolescent Mental Health during the COVID-19 Pandemic. *Journal of Youth and Adolescence, 50*(1), 44–57.  
<https://doi.org/10.1007/s10964-020-01332-9>
- Mahdavi, J., & Smith, P. K. (2002). The operation of a bully court and perceptions of its success: A case study. *School Psychology International, 23*(3), 327–341.  
<https://doi.org/10.1177/0143034302023003235>
- Mahoney, J. L., Cairns, B. D., & Farmer, T. W. (2003). Promoting interpersonal competence and educational success through extracurricular activity participation. *Journal of Educational Psychology, 95*(2), 409–418.  
<https://doi.org/10.1037/0022-0663.95.2.409>
- Main, G. (2014). Child poverty and children's subjective well-being. *Child Indicators Research, 7*(3), 451–472.  
<https://doi.org/10.1007/s12187-014-9237-7>
- Main, G. (2019). Money matters: A nuanced approach to understanding the relationship between household income and child subjective well-being. *Child Indicators Research, 12*(4), 1125–1145.  
<https://doi.org/10.1007/s12187-018-9574-z>
- Main, G., & Bradshaw, J. (2012). A child material deprivation index. *Child Indicators Research, 5*(3), 503–521.  
<https://doi.org/10.1007/s12187-012-9145-7>
- Malecki, C. K., & Demaray, M. K. (2003). What Type of Support Do They Need? Investigating Student Adjustment as Related to Emotional, Informational, Appraisal, and Instrumental Support. *School Psychology Quarterly, 18*(3), 231–252.  
<https://doi.org/10.1521/scpq.18.3.231.22576>
- Malina, R. M. (1991). Timing and sequence of changes in growth, maturation, and performance during adolescence. In Malina, R. M., Bouchard, C., & Bar-Or, O., (Eds.). *Growth, maturation, and physical activity*. Human Kinetics Academic.
- Mallo, M., & Wolfe, B. (2020). The Influence of Early Life Health Conditions on Life Course Health. National Bureau of Economic Research.  
<http://dx.doi.org/10.3386/w27174>.
- Mandalia, D., Ford, T., Hill, S., Sadler, K., Vizard, T., Goodman, A., Goodman, R., & McManus, S. (2017). *Mental Health of Children and Young People in England, 2017: professional services, informal support, and education*. NHS Digital.  
<https://dera.ioe.ac.uk/32622/8/MHCYP%202017%20Service%20Use.pdf>
- Mann, M. M., Hosman, C. M., Schaalma, H. P., & De Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research, 19*(4), 357–372.  
<https://doi.org/10.1093/her/cyg041>
- Mansfield, L., Kay, T., Meads, C., Grigsby-Duffy, L., Lane, J., John, A., Daykin, N., Dolan, P., Testoni, S., Julier, G., Payne, A., Tomlinson, A., & Victor, C. (2018). Sport and dance interventions for healthy young people (15–24 years) to promote subjective well-being: a systematic review. *BMJ Open, 8*(7), e020959.  
<https://doi.org/10.1136/bmjopen-2017-020959>
- Marcotte, D., Fortin, L., Potvin, P., & Papillon, M. (2002). Gender differences in depressive symptoms during adolescence: Role of gender-typed characteristics, self-esteem, body image, stressful life events, and pubertal status. *Journal of Emotional and Behavioral Disorders, 10*(1), 29–42.  
<https://doi.org/10.1177/106342660201000104>
- Marks, N., & Shah, H. (2004). A well-being manifesto for a flourishing society. *Journal of Public Mental Health, 3*(4), 9–15.  
<https://doi.org/10.1108/17465729200400023>
- Marques de Miranda, D., da Silva Athanasio, B., Sena Oliveira, A. C., & Simoes-E-Silva, A. C. (2020). How is COVID-19 pandemic impacting mental health of children and adolescents?. *International journal of disaster risk reduction : IJDRR, 51*, 101845.  
<https://doi.org/10.1016/j.ijdr.2020.101845>

- Marques, A., Branquinho, C., & Matos, M. G. (2017). The taller the better? Psychobiological influences on bullying behaviour among Portuguese adolescents. *Int J Ped & Neo Heal*, 1, 3-65. <https://doi.org/10.25141/2572-4355-2017-3.0065>
- Marques, A., Corrales, F. R. G., Martins, J., Catunda, R., & Sarmento, H. (2017). Association between physical education, school-based physical activity, and academic performance: a systematic review. *Retos: nuevas tendencias en educación física, deporte y recreación*, 31, 316-320.
- Marquez, J. (2020, October 24). The role of school in shaping gender differences in adolescent life satisfaction: a cross-national study. <https://doi.org/10.31235/osf.io/uvahw>
- Marquez, J., & Long, E. (2020). A Global Decline in Adolescents' Subjective Well-Being: a Comparative Study Exploring Patterns of Change in the Life Satisfaction of 15-year-old students in 46 Countries. *Child Indicators Research*, 14, 1251-1292. <https://doi.org/10.1007/s12187-020-09788-8>
- Marquez, J., & Main, G. (2020). Can schools and education policy make children happier? A comparative study in 33 countries. *Child Indicators Research*, 14, 283-339. <https://doi.org/10.1007/s12187-020-09758-0>
- Martínez-Gómez D, Ruiz JR, Gómez-Martínez S, et al. Active Commuting to School and Cognitive Performance in Adolescents: The AVENA Study. *Arch Pediatr Adolesc Med*. 2011;165(4):300-305. doi:10.1001/archpediatrics.2010.244
- Martínez-Gómez, D., Veiga, O. L., Gómez-Martínez, S., Zapatera, B., Martínez-Hernández, D., Calle, M. E., Marcos, A., & AFINOS Study Group (2012). Gender-specific influence of health behaviors on academic performance in Spanish adolescents: the AFINOS study. *Nutricion Hospitalaria*, 27(3), 724-730. <https://doi.org/10.3305/nh.2012.27.3.5633>
- Martinez, R. O., & Dukes, R. L. (1997). The effects of ethnic identity, ethnicity, and gender on adolescent well-being. *Journal of Youth and Adolescence*, 26(5), 503-516. <https://doi.org/10.1023/A:1024525821078>
- Martino, W. (1999). 'Cool boys', 'party animals', 'squids' and 'poofters': interrogating the dynamics and politics of adolescent masculinities in school. *British Journal of Sociology of Education*, 20(2), 239-263. <https://doi.org/10.1080/01425699995434>
- Marx, R., Tanner-Smith, E. E., Davison, C. M., Ufholz, L. A., Freeman, J., Shankar, R., Newton, L., Brown, R. S., Parpia, A. S., Cozma, I., & Hendriks, S. (2017). Later school start times for supporting the education, health, and well-being of high school students. *The Cochrane database of systematic reviews*, 7(7), CD009467. <https://doi.org/10.1002/14651858.CD009467.pub2>
- Masten, A. S., & Tellegen, A. (2012). Resilience in developmental psychopathology: contributions of the Project Competence Longitudinal Study. *Development and psychopathology*, 24(2), 345-361. <https://doi.org/10.1017/S095457941200003X>
- Mathers, M., Canterford, L., Olds, T., Hesketh, K., Ridley, K., & Wake, M. (2009). Electronic media use and adolescent health and well-being: cross-sectional community study. *Academic pediatrics*, 9(5), 307-314. <https://doi.org/10.1016/j.acap.2009.04.003>
- Mazereel, V., Vansteelandt, K., Menne-Lothmann, C., Decoster, J., Derom, C., Thiery, E., Rutten, B. P. F., Jacobs, N., van Os, J., Wichers, M., De Hert, M., Vancampfort, D., & van Winkel, R. (2021). The complex and dynamic interplay between self-esteem, belongingness and physical activity in daily life: An experience sampling study in adolescence and young adulthood. *Mental Health and Physical Activity*, 21, 100413. <https://doi.org/https://doi.org/10.1016/j.mhpa.2021.100413>
- McClelland, M. M., Acock, A. C., Piccinin, A., Rhea, S. A., & Stallings, M. C. (2013). Relations between preschool attention span-persistence and age 25 educational outcomes. *Early Childhood Research Quarterly*, 28(2), 314-324. <https://doi.org/10.1016/j.ecresq.2012.07.008>
- McCormick R. (2017). Does Access to Green Space Impact the Mental Well-being of Children: A Systematic Review. *Journal of pediatric nursing*, 37, 3-7. <https://doi.org/10.1016/j.pedn.2017.08.027>
- McCullough, M. E., Emmons, R. A., & Tsang, J.-A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112-127. <https://doi.org/10.1037/0022-3514.82.1.112>
- McDool, E., Powell, P., Roberts, J., & Taylor, K. (2020). The internet and children's psychological wellbeing. *Journal of Health Economics*, 69, 102274. <https://doi.org/10.1016/j.jhealeco.2019.102274>
- McGill, R. K., Way, N., & Hughes, D. (2012). Intra- and interracial best friendships during middle school: Links to social and emotional well-being. *Journal of Research on Adolescence*, 22(4), 722-738. <https://doi.org/10.1111/j.1532-7795.2012.00826.x>
- McLean, J., Campbell, P., Macintyre, A., Williams, J., Torrens, C., Maxwell, M., Biggs, H., Pollock, A., & Woodhouse, A. (2017). Health, Happiness and Wellbeing in the Transition from Adolescence to Adulthood. A Systematic Overview of Population Level Interventions. Mental Health Foundation. <https://www.mentalhealth.org.uk/publications/health-happiness-and-wellbeing-transition-adolescence-adulthood>
- McMurray, R. G., Bangdiwala, S. I., Harrell, J. S., & Amorim, L. D. (2008). Adolescents with metabolic

- syndrome have a history of low aerobic fitness and physical activity levels. *Dynamic Medicine*, 7, 5. <https://doi.org/10.1186/1476-5918-7-5>
- Meggiolaro, S., & Ongaro, F. (2014). Family contexts and adolescents' emotional status. *Journal of Youth Studies*, 17(10), 1306–1329. <https://doi.org/10.1080/13676261.2014.918246>
- Meherali, S., Punjani, N., Louie-Poon, S., Abdul Rahim, K., Das, J. K., Salam, R. A., & Lassi, Z. S. (2021). Mental Health of Children and Adolescents Amidst COVID-19 and Past Pandemics: A Rapid Systematic Review. *International Journal of Environmental Research and Public Health*, 18(7), 3432. <https://doi.org/10.3390/ijerph18073432>
- Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., Frank, J., Burke, C., Pinger, L., Soloway, G., Isberg, R., Sibinga, E., Grossman, L., & Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, 3(4), 291–307. <https://doi.org/10.1007/s12671-012-0094-5>
- Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in clinical neuroscience*, 11(1), 7–20. <https://doi.org/10.31887/DCNS.2009.11.1/krmerikangas>
- Merry, S. N., Hetrick, S. E., Cox, G. R., Brudevold-Iversen, T., Bir, J. J., & McDowell, H. (2011). Psychological and educational interventions for preventing depression in children and adolescents. *The Cochrane database of systematic reviews*, (12), CD003380. <https://doi.org/10.1002/14651858.CD003380.pub3>
- Michalos, A.C. (2007). Education, Happiness and Wellbeing. *Social Indices Research*, 87, 347–366. <https://doi.org/10.1007/s11205-007-9144-0>
- Milatz, A., Lüftenegger, M., & Schober, B. (2015). Teachers' Relationship Closeness with Students as a Resource for Teacher Wellbeing: A Response Surface Analytical Approach. *Frontiers in Psychology*, 6, 1949. <https://doi.org/10.3389/fpsyg.2015.01949>
- Millard, E. (1997). Differently literate: Gender identity and the construction of the developing reader. *Gender and Education*, 9(1), 31-48. <https://doi.org/10.1080/09540259721439>
- 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. <https://doi.org/10.1016/J.IJER.2013.05.004>
- Millings, A., Buck, R., Montgomery, A., Spears, M., & Stallard, P. (2012). School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. *Journal of Adolescence*, 35(4), 1061–1067. <https://doi.org/10.1016/j.adolescence.2012.02.015>
- Minh, A., Muhajarine, N., Janus, M., Brownell, M., & Guhn, M. (2017). A review of neighborhood effects and early child development: How, where, and for whom, do neighborhoods matter?. *Health & Place*, 46, 155–174. <https://doi.org/10.1016/j.healthplace.2017.04.012>
- Mistry, R. S., Vandewater, E. A., Huston, A. C., & McLoyd, V. C. (2002). Economic well-being and children's social adjustment: the role of family process in an ethnically diverse low-income sample. *Child Development*, 73(3), 935–951. <https://doi.org/10.1111/1467-8624.00448>
- Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., ... & Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the national Academy of Sciences*, 108(7), 2693-2698. <https://doi.org/10.1073/pnas.1010076108>
- Molcho, M., Harel, Y., & Dina, L. O. (2004). Substance use and youth violence. A study among 6th to 10th grade Israeli school children. *International journal of adolescent medicine and health*, 16(3), 239–251. <https://doi.org/10.1515/ijamh.2004.16.3.239>
- Moltrecht, B., Deighton, J., Patalay, P., & Edbrooke-Childs, J. (2021). Effectiveness of current psychological interventions to improve emotion regulation in youth: a meta-analysis. *European Child & Adolescent Psychiatry*, 30(6), 829-848. <https://doi.org/10.1007/s00787-020-01498-4>
- Monks, C. P., Robinson, S., & Worlidge, P. (2012). The emergence of cyberbullying: A survey of primary school pupils' perceptions and experiences. *School Psychology International*, 33(5), 477–491. <https://doi.org/10.1177/0143034312445242>
- Moolenaar, N. M. (2010). Ties with potential: Nature, antecedents, and consequences of social networks in school teams. *Universiteit van Amsterdam*. <https://dare.uva.nl/search?identifier=1c454637-e3be-4e64-b6bf-69192dc210ad>
- Moon, B., & Alarid, L. F. (2015). School bullying, low self-control, and opportunity. *Journal of Interpersonal Violence*, 30(5), 839–856. <https://doi.org/10.1177/0886260514536281>
- Moore, G. F., Cox, R., Evans, R. E., Hallingberg, B., Hawkins, J., Littlecott, H. J., Long, S. J., & Murphy, S. (2018). School, Peer and Family Relationships and Adolescent Substance Use, Subjective Wellbeing and Mental Health Symptoms in Wales: a Cross Sectional Study. *Child indicators research*, 11(6), 1951–1965. <https://doi.org/10.1007/s12187-017-9524-1>
- Moore, S., & Diener, E. (2019). Types of subjective well-being and their associations with relationship outcomes. *Journal of Positive School Psychology*, 3(2), 112-118.

- Moore, T. G., McHugh-Dillon, H., Bull, K., Fry, R., Laidlaw, B., & West, S. (2014). The evidence: What we know about place-based approaches to support children's wellbeing. Centre for Community Child Health, Australian Government Department of Education. [https://www.rch.org.au/uploadedFiles/Main/Content/ccch/CCCH\\_Collaborate\\_for\\_Children\\_Report\\_The\\_Evidence\\_Nov2014.pdf](https://www.rch.org.au/uploadedFiles/Main/Content/ccch/CCCH_Collaborate_for_Children_Report_The_Evidence_Nov2014.pdf)
- Moreno, A. J., Shwayder, I., & Friedman, I. D. (2017). The function of executive function: Everyday manifestations of regulated thinking in preschool settings. *Early Childhood Education Journal*, 45(2), 143–153. <https://doi.org/10.1007/s10643-016-0777-y>
- Morgan, A., & Jorm, A. (2007). Awareness of beyondblue: the national depression initiative in Australian young people. *Australasian psychiatry : bulletin of Royal Australian and New Zealand College of Psychiatrists*, 15(4), 329–333. <https://doi.org/10.1080/10398560701323976>
- Morschheuser, B., Hamari, J., & Maedche, A. (2019). Cooperation or competition – when do people contribute more? A field experiment on gamification of crowdsourcing. *International Journal of Human-Computer Studies*, 127, 7–24. <https://doi.org/10.1016/j.ijhcs.2018.10.001>
- Mullinax, M., Mathur, S., & Santelli, J. (2017). Adolescent sexual health and sexuality education. In Cherry, A., Baltag, V., & Dillon, M. E. (Eds.), *International Handbook on Adolescent Health and Development*, (pp. 143-167). Springer, Cham. [https://doi.org/10.1007/978-3-319-40743-2\\_8](https://doi.org/10.1007/978-3-319-40743-2_8)
- Mulloy, M. A., & Weist, M. D. (2013). Implementing a public mental health framework within schools. In Knifton, L., & Quinn, N., *Public Mental Health: Global Perspectives*, (pp. 127). Open University Press.
- Murray, C. J., Vos, T., Lozano, R., Naghavi, M., Flaxman, A. D., Michaud, C., Ezzati, M., Shibuya, K., Salomon, J. A., Abdalla, S., Aboyans, V., Abraham, J., Ackerman, I., Aggarwal, R., Ahn, S. Y., Ali, M. K., Alvarado, M., Anderson, H. R., Anderson, L. M., Andrews, K. G., ... Memish, Z. A. (2012). Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet (London, England)*, 380(9859), 2197–2223. [https://doi.org/10.1016/S0140-6736\(12\)61689-4](https://doi.org/10.1016/S0140-6736(12)61689-4)
- Mytton, J. A., DiGiuseppe, C., Gough, D. A., Taylor, R. S., & Logan, S. (2002). School-based violence prevention programs: systematic review of secondary prevention trials. *Archives of pediatrics & adolescent medicine*, 156(8), 752-762. <https://doi.org/10.1001/archpedi.156.8.752>
- Naghieh, A., Montgomery, P., Bonell, C. P., Thompson, M., & Aber, J. L. (2015). Organisational interventions for improving wellbeing and reducing work-related stress in teachers. *The Cochrane Database of Systematic Reviews*, (4), CD010306. <https://doi.org/10.1002/14651858.CD010306.pub2>
- Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: prevalence and association with psychosocial adjustment. *JAMA*, 285(16), 2094–2100. <https://doi.org/10.1001/jama.285.16.2094>
- Nathan, K., Robertson, O., Atatoa Carr, P., Howden-Chapman, P., & Pierse, N. (2019). Residential mobility and socioemotional and behavioural difficulties in a preschool population cohort of New Zealand children. *Journal of epidemiology and community health*, 73(10), 947–953. <https://doi.org/10.1136/jech-2019-212436>
- Natsuaki, M. N., Biehl, M. C., & Ge, X. (2009). Trajectories of depressed mood from early adolescence to young adulthood: The effects of pubertal timing and adolescent dating. *Journal of Research on Adolescence*, 19(1), 47-74. <https://doi.org/10.1111/j.1532-7795.2009.00581.x>
- Navarro, D., Montserrat, C., Malo, S., González, M., Casas, F., & Crous, G. (2015). Subjective Well-being: What do adolescents say? *Child and Family Social Work*, 22(1), 175-184. <https://doi.org/10.1111/cfs.12215>
- Navarro, R., Ruiz-Oliva, R., Larrañaga, E., & Yubero, S. (2015). The impact of cyberbullying and social bullying on optimism, global and school-related happiness and life satisfaction among 10-12-year-old schoolchildren. *Applied Research in Quality of Life*, 10(1), 15-36. <https://doi.org/10.1007/s11482-013-9292-0>
- Navarro, R., Yubero, S., & Larrañaga, E. (2015). Psychosocial risk factors for involvement in bullying behaviors: Empirical comparison between cyberbullying and social bullying victims and bullies. *School Mental Health: A Multidisciplinary Research and Practice Journal*, 7(4), 235–248. <https://doi.org/10.1007/s12310-015-9157-9>
- Nelson, E. E., Jarcho, J. M., & Guyer, A. E. (2016). Social re-orientation and brain development: An expanded and updated view. *Developmental cognitive neuroscience*, 17, 118–127. <https://doi.org/10.1016/j.dcn.2015.12.008>
- Nes, R. B., & Røysamb, E. (2015). The heritability of subjective well-being: Review and meta-analysis. In Pluess, M., *The genetics of psychological wellbeing: The role of heritability and genetics in positive psychology*, (pp. 75-96). <https://doi.org/10.1093/acprof:oso/9780199686674.003.0005>
- New South Wales Government (2015). *The Wellbeing Framework for Schools in New South Wales*. <https://education.nsw.gov.au/content/dam/main->

education/student-wellbeing/whole-school-approach/Wellbeing\_Framework\_for\_Schools.pdf

New South Wales Government (2021). Factors Influencing Wellbeing. NSW.

<https://education.nsw.gov.au/student-wellbeing/attendance-behaviour-and-engagement/behaviour-support-toolkit/support-for-teachers/understanding-behaviour/factors-that-influence-student-behaviour>

New Zealand Government Department of the Prime Minister and Cabinet (2019). Child and Youth Wellbeing Strategy. Child and Youth Wellbeing.

<https://childyouthwellbeing.govt.nz/resources/child-and-youth-wellbeing-strategy.html>

New Zealand Government Department of the Prime Minister and Cabinet (2019). Community, Hapori. Child and Youth Wellbeing.

<https://childyouthwellbeing.govt.nz/community>

Newland, L. A. (2014). Supportive family contexts: Promoting child well-being and resilience. *Early Child Development and Care*, 184(9-10), 1336–1346. <https://doi.org/10.1080/03004430.2013.875543>

Newland, L. A., DeCino, D. A., Mourlam, D. J., & Strouse, G. A. (2019). School climate, emotions, and relationships: children's experiences of well-being in the Midwestern US. *International Journal of Emotional Education*, 11(1), 67-83. <https://eric.ed.gov/?id=EJ1213737>

Newland, L. A., Giger, J. T., Lawler, M. J., Carr, E. R., Dykstra, E. A., & Roh, S. (2014). Subjective well-being for children in a rural community. *Journal of Social Service Research*, 40(5), 642–661. <https://doi.org/10.1080/01488376.2014.917450>

Newland, L. A., Lawler, M. J., Giger, J. T., Roh, S., & Carr, E. R. (2015). Predictors of children's subjective well-being in rural communities of the United States. *Child Indicators Research*, 8(1), 177-198. <https://doi.org/10.1007/s12187-014-9287-x>

Newland, L. A., Mourlam, D., & Strouse, G. (2018). A phenomenological exploration of the role of digital technology and media in children's subjective well-being. *Child Indicators Research*, 11(5), 1563-1583. <https://doi.org/10.1007/s12187-017-9498-z>

Nicklett, E. J., & Perron, B. E. (2010). Laws and policies to support the wellbeing of children: an international comparative analysis. *International journal of social welfare*, 19(1), 3–7. <https://doi.org/10.1111/j.1468-2397.2009.00699.x>

Nijs, N. M., Bun, C. J. E., Tempelaar, W. M., de Wit, N. J., Burger, H., Plevier, C. M., & Boks, M. P. M. (2014). Perceived school safety is strongly associated with adolescent mental health problems. *Community Mental Health Journal*, 50, 127–134. <https://doi.org/10.1007/s10597-013-9599-1>

Noble, R., Sornberger, M., Toste, J., Heath, N., & McLouth, R. (2011). Safety first: The role of trust and school safety in non-suicidal self-injury. *McGill Journal of Education/Revue des sciences de l'éducation de McGill*, 46(3), 423-441. <https://doi.org/10.7202/1009175ar>

Noble, T., McGrath, H., Wyatt, T., Carbines, R., & Robb, L. (2008). Scoping study into approaches to student wellbeing: Final Report. <https://www.dese.gov.au/student-resilience-and-wellbeing/resources/scoping-study-approaches-student-wellbeing-final-report>

Nordström, M. (2010). Children's views on child-friendly environments in different geographical, cultural and social neighbourhoods. *Urban studies*, 47(3), 514-528. <https://doi.org/10.1177/0042098009349771>

O'Brennan, L. M., Bradshaw, C. P., & Sawyer, A. L. (2009). Examining development differences in the social-emotional problems among frequent bullies, victims, and bully/victims. *Psychology in the Schools*, 46(2), 100–115. <https://doi.org/10.1002/pits.20357>

O'Connor, C. A., Dyson, J., Cowdell, F., & Watson, R. (2017). Do universal school-based mental health promotion programmes improve the mental health and emotional wellbeing of young people? A literature review. *Journal of Clinical Nursing*, 27(3-4), e412–e426. <https://doi.org/10.1111/jocn.14078>

O'Connor, C. A., Dyson, J., Cowdell, F., & Watson, R. (2018). Do universal school-based mental health promotion programmes improve the mental health and emotional wellbeing of young people? A literature review. *Journal of clinical nursing*, 27(3-4), e412-e426.

O'Donnell, L., Stueve, A., San Doval, A., Duran, R., Atnafou, R., Haber, D., Johnson, N., Murray, H., Grant, U., Juhn, G., Tang, J., Bass, J., & Piessens, P. (1999). Violence prevention and young adolescents' participation in community youth service. *The Journal of Adolescent Health: official publication of the Society for Adolescent Medicine*, 24(1), 28–37. [https://doi.org/10.1016/s1054-139x\(98\)00069-x](https://doi.org/10.1016/s1054-139x(98)00069-x)

O'Reilly, M., Svirydenka, N., Adams, S., & Dogra, N. (2018). Review of mental health promotion interventions in schools. *Social Psychiatry and Psychiatric Epidemiology*, 53(7), 647–662. <https://doi.org/10.1007/s00127-018-1530-1>

O'Connor, K. E. (2008). "You choose to care": Teachers, emotions and professional identity. *Teaching and teacher education*, 24(1), 117-126.

Oakley, A., Fullerton, D., Holland, J., Arnold, S., France-Dawson, M., Kelley, P. & McGrellis, S. (1995). Sexual health education interventions for young people: A

- methodological review. *BMJ.*, 310(6973), 158-62. <https://doi.org/10.1136/bmj.310.6973.158>
- Oberle, E., Schonert-Reichl, K. A., & Zumbo, B. D. (2011). Life satisfaction in early adolescence: personal, neighborhood, school, family, and peer influences. *Journal of youth and adolescence*, 40(7), 889–901. <https://doi.org/10.1007/s10964-010-9599-1>
- OECD. (2009, September 1). Doing Better for Children. OECD Better Policies for Better Lives. <https://www.oecd.org/social/family/doingbetterforchildren.htm>
- OECD. (2009). PISA Data Analysis Manual: SPSS, 2nd edition. OECD Publishing, Paris. <https://doi.org/10.1787/9789264056275-en>
- OECD. (2013). OECD Guidelines on Measuring Subjective Well-being. OECD Publishing, Paris. <https://doi.org/10.1787/9789264191655-en>
- OECD. (2013). OECD How's Life 2013; Measuring Well-being. OECD Publishing, Paris. <https://www.oecd.org/sdd/3013071e.pdf>
- OECD. (2017). Students' well-being: What it is and how it can be measured. In PISA 2015 Results (Volume III): Students' Well-Being. OECD Publishing, Paris. <https://doi.org/10.1787/9789264273856-6-en>
- OECD. (2018). The Resilience of Students with an Immigrant Background: Factors that Shape Well-being, In OECD Reviews of Migrant Education. OECD Publishing, Paris. <https://doi.org/10.1787/9789264292093-en>
- OECD. (2018). Education at a Glance 2018: OECD Indicators. OECD Publishing, Paris. <http://dx.doi.org/10.1787/eag-2018-en>
- OECD. (2018b). PISA 2018 Technical Report. OECD Publishing, Paris. <https://www.oecd.org/pisa/data/pisa2018technicalreport/>
- OECD. (2019). Changing the Odds for Vulnerable Children: Building Opportunities and Resilience. OECD Publishing, Paris. <https://doi.org/10.1787/a2e8796c-en>
- OECD. (2020). Early Learning and Child Well-being: A Study of Five-year-Olds in England, Estonia, and the United States, OECD Publishing, Paris. <https://doi.org/10.1787/3990407f-en>
- OECD. (2021). Measuring What Matters for Child Well-being and Policies. OECD Publishing, Paris. <https://doi.org/10.1787/e82fded1-en>
- Office for National Statistics. (2018). Children's well-being and social relationships, UK: 2018. ONS, UK. <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeing/march2018>
- Office for National Statistics. (2020). Children's views on well-being and what makes a happy life, UK: 2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/childrensviewsonwellbeingandwhatmakesahappylifeuk2020/2020-10-02>
- Office for National Statistics. (2020). Children's well-being indicator review, UK: 2020. ONS, UK. <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/childrenswellbeingindicatorreviewuk2020/2020-09-02>
- Offord D. R. (2000). Selection of levels of prevention. *Addictive Behaviors*, 25(6), 833–842. [https://doi.org/10.1016/s0306-4603\(00\)00132-5](https://doi.org/10.1016/s0306-4603(00)00132-5)
- Ofsted. (2009). The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2009/10. <http://www.ofsted.gov.uk/resources/annualreport1011>
- Ogelman, H. G., & Önder, A. (2019). Emotional regulation strategies of 5–6-year-old children and their levels of resiliency. *Early Child Development and Care*, 191(2), 221-229. <https://doi.org/10.1080/03004430.2019.1613650>
- Okun, M. A., & George, L. K. (1984). Physician- and self-ratings of health, neuroticism and subjective well-being among men and women. *Personality and Individual Differences*, 5(5), 533–539. [https://doi.org/10.1016/0191-8869\(84\)90027-8](https://doi.org/10.1016/0191-8869(84)90027-8)
- Oldfield, J., & Jackson, T. (2019). Childhood abuse or trauma: A racial perspective. *Children Australia*, 44(1), 42-48. <https://doi.org/10.1017/cha.2018.48>
- Olsson, C. A., McGee, R., Nada-Raja, S., & Williams, S. M. (2013). A 32-year longitudinal study of child and adolescent pathways to well-being in adulthood. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 14(3), 1069–1083. <https://doi.org/10.1007/s10902-012-9369-8>
- Olweus D. (1994) Bullying at School. In L.R. Huesmann (Eds.), *Aggressive Behavior*, The Plenum Series in Social/Clinical Psychology, (pp. 97-130). Springer, Boston, MA. [https://doi.org/10.1007/978-1-4757-9116-7\\_5](https://doi.org/10.1007/978-1-4757-9116-7_5)
- Olweus D. (2011). Bullying at school and later criminality: findings from three Swedish community samples of males. *Criminal behaviour and mental health* : *CBMH*, 21(2), 151–156. <https://doi.org/10.1002/cbm.806>
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. *The Development and Treatment of Childhood Aggression*, 17(17), 411-448. <https://doi.org/10.1007/BF03172807>
- Olweus, D. (2013). School bullying: Development and some important challenges. *Annual Review of Clinical*

- Psychology, 9, 751-780.  
<https://doi.org/10.1146/annurev-clinpsy-050212-185516>
- Orkibi, H., Hamama, L., Gavriel-Fried, B., & Ronen, T. (2018). Pathways to adolescents' flourishing: Linking self-control skills and positivity ratio through social support. *Youth & Society, 50*(1), 3–25. <https://doi.org/10.1177/0044118X15581171>
- Orkibi, H., Ronen, T., & Assoulin, N. (2014). The subjective well-being of Israeli adolescents attending specialized school classes. *Journal of Educational Psychology, 106*(2), 515–526. <https://doi.org/10.1037/a0035428>
- Ormerod, A. J., Collinsworth, L. L., & Perry, L. A. (2008). Critical climate: relations among sexual harassment, climate, and outcomes for high school girls and boys. *Psychology of Women Quarterly, 32*(2), 113–125. <https://doi.org/10.1111/j.1471-6402.2008.00417.x>
- Orpinas, P., Parcel, G. S., McAlister, A., & Frankowski, R. (1995). Violence prevention in middle schools: A pilot evaluation. *Journal of Adolescent Health, 17*(6), 360–371. [https://doi.org/10.1016/1054-139X\(95\)00194-W](https://doi.org/10.1016/1054-139X(95)00194-W)
- Pagán-Castaño, E., Sánchez-García, J., Garrigos-Simon, F. J., & Guijarro-García, M. (2021). The Influence of Management on Teacher Well-Being and the Development of Sustainable Schools. *Sustainability, 13*(5), 2909. <http://dx.doi.org/10.3390/su13052909>
- Palloni, A., Milesi, C., White, R. G., & Turner, Al. (2009). Early childhood health, reproduction of economic inequalities and the persistence of health and mortality differentials. *Social Science and Medicine, 68*(9), 1574–1582.  
<http://dx.doi.org/10.1016/j.socscimed.2009.02.009>
- Patalay, P., & Fitzsimons, E. (2016). Correlates of Mental Illness and Wellbeing in Children: Are They the Same? Results From the UK Millennium Cohort Study. *Journal of the American Academy of Child and Adolescent Psychiatry, 55*(9), 771–783.  
<https://doi.org/10.1016/j.jaac.2016.05.019>
- Patalay, P., & Fitzsimons, E. (2018). Development and predictors of mental ill-health and wellbeing from childhood to adolescence. *Social Psychiatry and Psychiatric Epidemiology, 53*(12), 1311–1323.  
<https://doi.org/10.1007/s00127-018-1604-0>
- Patalay, P., O'Neill, E., Deighton, J., & Fink, E. (2020). School characteristics and children's mental health: A linked survey-administrative data study. *Preventive Medicine, 141*, 106292.  
<https://doi.org/10.1016/j.ypmed.2020.106292>
- Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., Arora, M., Azzopardi, P., Baldwin, W., Bonell, C., Kakuma, R., Kennedy, E., Mahon, J., McGovern, T., Mokdad, A. H., Patel, V., Petroni, S., Reavley, N., Taiwo, K., Waldfogel, J., ... Viner, R. M. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *Lancet (London, England), 387*(10036), 2423–2478.  
[https://doi.org/10.1016/S0140-6736\(16\)00579-1](https://doi.org/10.1016/S0140-6736(16)00579-1)
- Pedersen, S., Vitaro, F., Barker, E. D., & Borge, A. I. (2007). The timing of middle-childhood peer rejection and friendship: linking early behavior to early-adolescent adjustment. *Child Development, 78*(4), 1037–1051.  
<https://doi.org/10.1111/j.1467-8624.2007.01051.x>
- Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Current opinion in psychiatry, 18*(2), 189–193.  
<https://doi.org/10.1097/00001504-200503000-00013>
- Pesonen, A. K., Rääkkönen, K., Paavonen, E. J., Heinonen, K., Komsu, N., Lahti, J., Kajantie, E., Järvenpää, A. L., & Strandberg, T. (2010). Sleep duration and regularity are associated with behavioral problems in 8-year-old children. *International Journal of Behavioral Medicine, 17*(4), 298–305.  
<https://doi.org/10.1007/s12529-009-9065-1>
- Phillippo, K., Conner, J., Davidson, S., & Pope, D. (2017). A systematic review of student self-report instruments that assess student-teacher relationships. *Teachers College Record, 119*(8), 1-42. <https://eric.ed.gov/?id=EJ1143657>
- Pianta, R. C. (2001). STRS: Student-teacher Relationship Scale: professional manual. Lutz, FL Psychological Assessment Resources.
- Pianta, R. C., Hamre, B., & Stuhlman, M. (2003). Relationships between teachers and children. In W. M. Reynolds & G. E. Miller (Eds.), *Handbook of psychology: Educational psychology, Vol. 7*, pp. 199–234. John Wiley & Sons Inc.
- Pickett, K., & Wilkinson, R. (2010). Inequality: An underacknowledged source of mental illness and distress. *British Journal of Psychiatry, 197*(6), 426-428.  
<https://doi.org/10.1192/bjp.bp.109.072066>
- Pisani, A. R., Schmeelk-Cone, K., Gunzler, D., Petrova, M., Goldston, D. B., Tu, X., & Wyman, P. A. (2012). Associations between suicidal high school students' help-seeking and their attitudes and perceptions of social environment. *Journal of Youth and Adolescence, 41*(10), 1312–1324. <https://doi.org/10.1007/s10964-012-9766-7>
- Pittman, L. D., & Richmond, A. (2007). Academic and psychological functioning in late adolescence: The importance of school belonging. *Journal of Experimental Education, 75*(4), 270–290. <https://doi.org/10.3200/JEXE.75.4.270-292>
- Plenty, S., Bejerot, S., & Eriksson, K. (2014). Humor style and motor skills: Understanding vulnerability to bullying. *Europe's Journal of Psychology, 10*(3), 480-491.  
<https://doi.org/10.5964/ejop.v10i3.749>

- Plenty, S., Östberg, V., Almquist, Y. B., Augustine, L., & Modin, B. (2014). Psychosocial working conditions: An analysis of emotional symptoms and conduct problems amongst adolescent students. *Journal of Adolescence*, 37(4), 407–417. <https://doi.org/10.1016/j.adolescence.2014.03.008>
- Poitras, V. J., Gray, C. E., Borghese, M. M., Carson, V., Chaput, J. P., Janssen, I., Katzmarzyk, P. T., Pate, R. R., Connor Gorber, S., Kho, M. E., Sampson, M., & Tremblay, M. S. (2016). Systematic review of the relationships between objectively measured physical activity and health indicators in school-aged children and youth. *Applied physiology, nutrition, and metabolism = Physiologie appliquee, nutrition et metabolisme*, 41(6 Suppl 3), S197–S239. <https://doi.org/10.1139/apnm-2015-0663>
- Pössel, P., Smith, E., & Alexander, O. (2018). LARS&LISA: A universal school-based cognitive-behavioral program to prevent adolescent depression. *Psicologia: Reflexão e Crítica*, 31, Article 23. <https://doi.org/10.1186/s41155-018-0104-1>
- Pössel, P., Smith, E., & Alexander, O. (2018). LARS&LISA: a universal school-based cognitive-behavioral program to prevent adolescent depression. *Psicologia: Reflexão e Crítica*, 31(1), 23. doi:10.1186/s41155-018-0104-1
- Poulton, R., Caspi, A., Milne, B. J., Thomson, W. M., Taylor, A., Sears, M. R., & Moffitt, T. E. (2002). Association between children's experience of socioeconomic disadvantage and adult health: A life-course study. *The Lancet*, 360(9346), 1640–1645. [https://doi.org/10.1016/S0140-6736\(02\)11602-3](https://doi.org/10.1016/S0140-6736(02)11602-3)
- Poulton, R., Moffitt, T. E., & Silva, P. A. (2015). The Dunedin Multidisciplinary Health and Development Study: Overview of the first 40 years, with an eye to the future. *Social Psychiatry and Psychiatric Epidemiology: The International Journal for Research in Social and Genetic Epidemiology and Mental Health Services*, 50(5), 679–693. <https://doi.org/10.1007/s00127-015-1048-8>
- Powdthavee, N., & Vernoit, J. (2012). The transferable scars: a longitudinal evidence of psychological impact of past parental unemployment on adolescents in the United Kingdom. CEP Discussion Papers, dp1165. Centre for Economic Performance, LSE.
- Priest, N., Paradies, Y., Trenerry, B., Truong, M., Karlsen, S., & Kelly, Y. (2013). A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Social science & medicine* (1982), 95, 115–127. <https://doi.org/10.1016/j.socscimed.2012.11.031>
- Proctor, C., Alex Linley, P., & Maltby, J. (2009). Youth life satisfaction measures: a review. *The Journal of Positive Psychology*, 4(2), 128–144. doi:10.1080/17439760802650816
- Proctor, C., Tsukayama, E., Wood, A. M., Maltby, J., Eades, J. F., & Linley, P. A. (2011). Strengths Gym: The impact of a character strengths-based intervention on the life satisfaction and well-being of adolescents. *The Journal of Positive Psychology*, 6(5), 377–388. doi:10.1080/17439760.2011.594079
- Psychological Science, 29(4), 549–571. <https://doi.org/10.1177/0956797617739704>
- Public Health England (2016). Measuring and monitoring children and young people's mental wellbeing: A toolkit for schools and colleges. Public Health England: England. <https://www.annafreud.org/media/4612/mwb-toolkit-final-draft-4.pdf>
- Public Health England (PHE; 2021). Promoting children and young people's emotional health and wellbeing: A whole school and college approach. HM Government with Children & Young People's Mental Health Coalition.
- Putnick, D. L., Bornstein, M. H., Lansford, J. E., Malone, P. S., Pastorelli, C., Skinner, A. T., Sorbring, E., Tapanya, S., Tirado, L. M. U., Zelli, A., Alampay, L. P., Al-Hassan, S. M., Bacchini, D., Bombi, A. S., Chang, L., Deater-Deckard, K., Di Giunta, L., Dodge, K. A., & Oburu, P. (2015). Perceived mother and father acceptance-rejection predict four unique aspects of child adjustment across nine countries. *Journal of Child Psychology and Psychiatry*, 56(8), 923–932. <https://doi.org/10.1111/jcpp.12366>
- Quayle, D., et al. (2001). The effects of an Optimism and Lifeskills program on depressive symptoms in preadolescence.
- Racine, N., Cooke, J. E., Eirich, R., Korczak, D. J., McArthur, B., & Madigan, S. (2020). Child and adolescent mental illness during COVID-19: A rapid review. *Psychiatry Research*, 292, 113307. <https://doi.org/10.1016/j.psychres.2020.113307>
- Raghavan, R., & Alexandrova, A. (2015). Toward a theory of child well-being. *Social Indicators Research*, 121(3), 887–902. <https://doi.org/10.1007/s11205-014-0665-z>
- Ranum, B. M., Wichstrøm, L., Pallesen, S., Falch-Madsen, J., Halse, M., & Steinsbekk, S. (2019). Association Between Objectively Measured Sleep Duration and Symptoms of Psychiatric Disorders in Middle Childhood. *JAMA Network Open*, 2(12), e1918281. <https://doi.org/10.1001/jamanetworkopen.2019.18281>
- Rathmann, K., Herke, M. G., Hurrelmann, K., & Richter, M. (2018). Perceived class climate and school-aged children's life satisfaction: The role of the learning environment in classrooms. *PLoS One*, 13(2), e0189335. <https://doi.org/10.1371/journal.pone.0189335>
- Ratnayake, P., & Hyde, C. (2019). Mental health literacy, help-seeking behaviour and wellbeing in young people: Implications for practice.

- Ravens-Sieberer, U., Gosch, A., Rajmil, L., Erhart, M., Bruil, J., Power, M., . . . Kilroe, J. (2008). The KIDSCREEN-52 Quality of Life Measure for Children and Adolescents: Psychometric Results from a Cross-Cultural Survey in 13 European Countries. *Value in Health*, 11(4), 645-658. doi:<https://doi.org/10.1111/j.1524-4733.2007.00291.x>
- Ravens-Sieberer, U., Kökönyei, G., & Thomas, C. (2004). School and Health. In Currie, C., Roberts, C., Morgan, A., Smith, R., & Settertobulte, W., & Samdal, O. (Eds.), *Young people's health in context. Health Behavior in School-aged Children (HBSC). Health Policy for Children and Adolescents*, 4, 184-195. <https://apps.who.int/iris/handle/10665/107560>
- Reddy, R., Rhodes, J. E., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology*, 15(1), 119-138. <https://doi.org/10.1017/S0954579403000075>
- Rees P. (2013). The mental health, emotional literacy, cognitive ability, literacy attainment and 'resilience' of 'looked after children': a multidimensional, multiple-rater population based study. *The British Journal of Clinical Psychology*, 52(2), 183-198. <https://doi.org/10.1111/bjc.12008>
- Rees, G. (2017). *Children's Views on Their Lives and Well-being*. New York: Springer.
- Rees, G. & Main, G. (eds). (2015). *Children's views on their lives and well-being in 15 countries: An initial report on the Children's Worlds survey, 2013-14*. York, UK: Children's Worlds Project (ISCWeB). <https://www.york.ac.uk/inst/spru/research/pdf/ChildrensWorlds.pdf>
- Rees, G., Goswami, H., & Bradshaw, J. (2010). Developing an index of children's subjective well-being in England. *The Children's Society*. <https://www.york.ac.uk/inst/spru/pubs/pdf/childswb.pdf>
- Rees, G., Goswami, H., Pople, L., Bradshaw, J., Keung, A., & Main, G. (2012). *The Good Childhood Report 2012: A review of our children's well-being*. The Children's Society. [https://www.pkavs.org.uk/uploads/good\\_childhood\\_report\\_2012\\_final.pdf](https://www.pkavs.org.uk/uploads/good_childhood_report_2012_final.pdf)
- Rees, G., Goswami, H., Pople, L., Bradshaw, J., Keung, A., & Main, G. (2013). *The Good Childhood Report 2013*. The Children's Society. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.394.7901&rep=rep1&type=pdf>
- Rees, G., Savahl, S., Lee, B. J., & Casas, F. (eds.), (2020). *Children's views on their lives and well-being in 35 countries: A report on the Children's Worlds project, 2016-19*. Jerusalem, Israel: Children's Worlds Project (ISCWeB). <https://iscweb.org/wp-content/uploads/2020/07/Childrens-Worlds-Comparative-Report-2020.pdf>
- Renshaw, T. L., Long, A. C. J., & Cook, C. R. (2015). Assessing adolescents' positive psychological functioning at school: Development and validation of the Student Subjective Wellbeing Questionnaire. *School Psychology Quarterly*, 30(4), 534-552. <https://doi.org/10.1037/spq0000088>
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., Tabor, J., Beuhring, T., Sieving, R. E., Shew, M., Ireland, M., Bearinger, L. H., & Udry, J. R. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *JAMA: Journal of the American Medical Association*, 278(10), 823-832. <https://doi.org/10.1001/jama.278.10.823>
- Ribar, D. C. (2015). Why marriage matters for child wellbeing. *The Future of Children*, 11-27. <https://files.eric.ed.gov/fulltext/EJ1079374.pdf>
- Rich, M. (2019), OECD-University of Zurich Expert Consultation "Protection of Children in a Connected World", [https://one.oecd.org/document/DSTI/CDEP/SPDE\(2019\)3/en/pdf](https://one.oecd.org/document/DSTI/CDEP/SPDE(2019)3/en/pdf).
- Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management*, 5, 173-183. <https://doi.org/10.2147/PRBM.S38707>
- Ridge, T. (2002). *Childhood poverty and social exclusion: From a child's perspective*. Policy Press. <https://doi.org/10.1332/policypress/9781861343628.001.0001>
- Riekie, H., Aldridge, J. M., & Afari, E. (2017). The role of the school climate in high school students' mental health and identity formation: A South Australian study. *British Educational Research Journal*, 43(1), 95-123. <https://doi.org/10.1002/berj.3254>
- Riley, A. W. (2004). Evidence That School-Age Children Can Self-Report on Their Health. *Ambulatory Pediatrics*, 4(4), 371-376. <https://doi.org/https://doi.org/10.1367/A03-178R.1>
- Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality traits from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin*, 126(1), 3-25. <https://doi.org/10.1037/0033-2909.126.1.3>
- Robinson, E. (2006). *Young people and their parents: Supporting families through changes that occur in adolescence*. Melbourne, Australia: Australian Institute of Family Studies. <https://aifs.gov.au/cfca/publications/young-people-and-their-parents-supporting-families-through>

- Robson, C. (2019). Universal approaches to improving children and young people's mental health and wellbeing: Findings from the synthesis of systematic reviews. *Public Health England (PHE)*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/842176/SIG\\_report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/842176/SIG_report.pdf)
- Robson, D. A., Allen, M. S., & Howard, S. J. (2020). Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychological Bulletin*, 146(4), 324–354. <https://doi.org/10.1037/bul0000227>
- Roeger, L., Allison, S., Martin, G., Dadds, V. & Keeves, J. (2001). Adolescent depressive symptomatology: Improve schools or help students? *Australian Journal of Psychology*, 53(3), 134-139. <https://doi.org/10.1080/00049530108255135>
- Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Boston: Houghton Mifflin.
- Ronen, T., Hamama, L., Rosenbaum, M., & Mishely-Yarlap, A. (2016). Subjective well-being in adolescence: The role of self-control, social support, age, gender, and familial crisis. *Journal of Happiness Studies*, 17(1), 81-104. <https://doi.org/10.1007/s10902-014-9585-5>
- Rones, M., & Hoagwood, K. (2000). School-based mental health services: a research review. *Clinical child and family psychology review*, 3(4), 223–241. <https://doi.org/10.1023/a:1026425104386>
- Roseth, C. J., Johnson, D. W., & Johnson, R. T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures. *Psychological Bulletin*, 134(2), 223–246. <https://doi.org/10.1037/0033-2909.134.2.223>
- Ross, D. A., Hinton, R., Melles-Brewer, M., Engel, D., Zeck, W., Fagan, L., Herat, J., Phaladi, G., Imbago-Jácome, D., Anyona, P., Sanchez, A., Damji, N., Terki, F., Baltag, V., Patton, G., Silverman, A., Fogstad, H., Banerjee, A., & Mohan, A. (2020). Adolescent Well-Being: A Definition and Conceptual Framework. *The Journal of Adolescent Health : official publication of the Society for Adolescent Medicine*, 67(4), 472–476. <https://doi.org/10.1016/j.jadohealth.2020.06.042>
- Ross, M. R., Powell, S. R., & Elias, M. J. (2002). New Roles for School Psychologists: Addressing the Social and Emotional Learning Needs of Students. *School Psychology Review*, 31(1), 43-52. [doi:10.1080/02796015.2002.12086141](https://doi.org/10.1080/02796015.2002.12086141)
- Ross, M. R., Powell, S. R., & Elias, M. J. (2002). New roles for school psychologists: Addressing the social and emotional learning needs of students. *School Psychology Review*, 31(1), 43-52. <https://doi.org/10.1080/02796015.2002.12086141>
- Roth, G., Assor, A., Kanat-Maymon, Y., & Kaplan, H. (2007). Autonomous motivation for teaching: How self-determined teaching may lead to self-determined learning. *Journal of Educational Psychology*, 99(4), 761–774. <https://doi.org/10.1037/0022-0663.99.4.761>
- Rothbart, M. K., & Bates, J. E. (2006). Temperament. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of Child Psychology: Social, Emotional, and Personality Development* (pp. 99–166). John Wiley & Sons, Inc.
- Røysamb, E., & Nes, R. B. (2018). The genetics of wellbeing. *Handbook of well-being*. Salt Lake City, UT: DEF Publishers. <https://nobascholar.com/chapters/72/download.pdf>
- Rucinski, C. L., Brown, J. L., & Downer, J. T. (2018). Teacher–child relationships, classroom climate, and children's social-emotional and academic development. *Journal of Educational Psychology*, 110(7), 992–1004. <https://doi.org/10.1037/edu0000240>
- Rudolph, K. D., Caldwell, M. S., & Conley, C. S. (2005). Need for Approval and Children's Well-Being. *Child Development*, 76(2), 309–323. [https://doi.org/10.1111/j.1467-8624.2005.00847\\_a.x](https://doi.org/10.1111/j.1467-8624.2005.00847_a.x)
- Rumbaut, R. G., & Portes, A. (Eds.). (2001). *Ethnicities: Children of immigrants in America*. Univ of California Press.
- Runarsdottir, E. M., & Vilhjalmsson, R. (2019). Ethnicity and adolescent well-being in the context of families, friends, and neighborhoods. *Journal of Youth Studies*, 22(10), 1345-1360. <https://doi.org/10.1080/13676261.2019.1578873>
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>
- Ryff, C. D. (2017). Eudaimonic well-being, inequality, and health: Recent findings and future directions. *International review of economics*, 64(2), 159-178. <https://doi.org/10.1007/s12232-017-0277-4>
- Sabol, T. J., & Pianta, R. C. (2012). Recent trends in research on teacher–child relationships. *Attachment & Human Development*, 14(3), 213–231. <https://doi.org/10.1080/14616734.2012.672262>
- Sadler, K., Vizard, T., Ford, T., Goodman, A., Goodman, R. and McManus, S. (2018). *Mental Health of Children and Young People in England, 2017: Trends and characteristics*. Leeds, UK: NHS Digital. <https://openaccess.city.ac.uk/id/eprint/23650>
- Sakellari, E., Notara, V., Lagiou, A., Fatkulina, N., Ivanova, S., Korhonen, J., Kregar Velikonja, N., Lalova, V., Laaksonen, C., Petrova, G., & Lahti, M. (2021). Mental

- Health and Wellbeing at Schools: Health Promotion in Primary Schools with the Use of Digital Methods. *Children* (Basel, Switzerland), 8(5), 345. <https://doi.org/10.3390/children8050345>
- Salmela-Aro, K., & Tuominen-Soini, H. (2010). Adolescents' life satisfaction during the transition to post-comprehensive education: Antecedents and consequences. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 11(6), 683–701. <https://doi.org/10.1007/s10902-009-9156-3>
- Salmivalli, C. (2007). Peer led intervention campaign against school bullying: who considered it useful, who benefited? *Educational Research*, 43(3), 263–278. <https://doi.org/10.1080/00131880110081035>
- Samdal, O., Wold, B., & Bronis, M. (1999). Relationship between students' perceptions of school environment, their satisfaction with school and perceived academic achievement: An international study. *School Effectiveness and School Improvement*, 10(3), 296–320. <https://eric.ed.gov/?id=EJ594855>
- Sandford, A. (2020, April 3). Coronavirus: Half of humanity now on lockdown as 90 countries call for confinement. *Euronews*. <https://www.euronews.com/2020/04/02/coronavirus-in-europe-spain-s-death-toll-hits-10-000-after-record-950-new-deaths-in-24-hour>
- Sarkova, M., Bacikova-Sleskova, M., Madarasova Geckova, A., Katreniakova, Z., van den Heuvel, W., & van Dijk, J. P. (2014). Adolescents' psychological well-being and self-esteem in the context of relationships at school. *Educational Research*, 56(4), 367–378. <https://doi.org/10.1080/00131881.2014.965556>
- Sarriera, J. C., Casas, F., dos Santos, B. R., Bedin, L. M., & Gonzàlez, M. (2018). Subjective well-being and personal relationships in childhood: Comparison of Brazilian and Spanish children. *Interpersona: An International Journal on Personal Relationships*, 12(1), 91–106. <https://doi.org/10.5964/ijpr.v12i1.284>
- Satici, S. A. (2020). Hope and loneliness mediate the association between stress and subjective vitality. *Journal of College Student Development*, 61(2), 225–239. <https://doi.org/10.1353/csd.2020.0019>
- Savoie, I., Moreau, N., Brault, M. C., Levêque, A., & Godin, I. (2015). Well-being, gender, and psychological health in school-aged children. *Archives of Public Health*, 73(1), 1–8. <https://doi.org/10.1186/s13690-015-0104-x>
- Sawyer, S. M., Azzopardi, P. S., Wickremarathne, D., & Patton, G. C. (2018). The age of adolescence. *The Lancet. Child & Adolescent Health*, 2(3), 223–228. [https://doi.org/10.1016/S2352-4642\(18\)30022-1](https://doi.org/10.1016/S2352-4642(18)30022-1)
- Schaarschmidt, P. D. U., and Kieschke, P. D. U. (2013). "Beanspruchungsmuster im lehrerberuf ergebnisse und schlussfolgerungen aus der potsdamer lehrerstudie [Patterns of strain within the teaching profession: results and conclusions from the potsdam teacher study]," in *Belastung und Beanspruchung im Lehrerberuf [Stress and Strain in the Teaching Profession]*, ed. M. Rothland (Wiesbaden: Springer Fachmedien), 81–97.
- Schaefer, J. D., Caspi, A., Belsky, D. W., Harrington, H., Houts, R., Horwood, L. J., Hussong, A., Ramrakha, S., Poulton, R., & Moffitt, T. E. (2017). Enduring mental health: Prevalence and prediction. *Journal of abnormal psychology*, 126(2), 212–224. <https://doi.org/10.1037/abn0000232>
- Schaufeli, W. B., and Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, 293–315. <https://doi.org/10.1002/job.248>
- Scheckner, S. & Rollin, Stephen & Kaiser-Ulrey, Cheryl & Wagner, R. (2002). School Violence in Children and Adolescents: A Meta-Analysis of the Effectiveness of Current Interventions. *Journal of School Violence*, 1(2), 5–32. [https://doi.org/10.1300/J202v01n02\\_02](https://doi.org/10.1300/J202v01n02_02)
- Schiaffino, K. M. (2003). Other measures of psychological well-being: The Affect Balance Scale (ABS), General Health Questionnaire (GHQ-12), Life Satisfaction Index-A (LSI-A), Rosenberg Self-Esteem Scale, Satisfaction with Life Scale (SWLS), and State-Trait Anxiety Index (STAI). *Arthritis Care & Research: Official Journal of the American College of Rheumatology*, 49(S5), S165–S174.
- Schleicher, A. (2019). PISA 2018: Insights and Interpretations. OECD Publishing, Paris. <https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf>
- Schleider, J. L., Abel, M. R., & Weisz, J. R. (2015). Implicit theories and youth mental health problems: A random-effects meta-analysis. *Clinical Psychology Review*, 35, 1–9. <https://doi.org/https://doi.org/10.1016/j.cpr.2014.11.001>
- School Effectiveness and School Improvement, 12(3), 265–284. <https://doi.org/10.1076/sesi.12.3.265.3449>
- School Mental Health: A Multidisciplinary Research and Practice Journal, 9(3), 284–293. <https://doi.org/10.1007/s12310-017-9215-6>
- Schwartz, K. D., Exner-Cortens, D., McMorris, C. A., Makarenko, E., Arnold, P., Van Bavel, M., Williams, S., & Canfield, R. (2021). COVID-19 and Student Well-Being: Stress and Mental Health during Return-to-School. *Canadian Journal of School Psychology*, 36(2), 166–185. <https://doi.org/10.1177/08295735211001653>
- Schweig, J., Hamilton, L. S., & Baker, G. (2019). School and Classroom Climate Measures: Considerations for Use by State and Local Education Leaders. Santa Monica, CA: RAND Corporation.

- Secretary of State for Health and Secretary of State for Education. (2017). Transforming Children and Young People's Mental Health Provision: a Green Paper. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/664855/Transforming\\_children\\_and\\_young\\_people\\_s\\_mental\\_health\\_provision.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664855/Transforming_children_and_young_people_s_mental_health_provision.pdf)
- Sektnan, M., McClelland, M. M., Acock, A., & Morrison, F. J. (2010). Relations between early family risk, children's behavioral regulation, and academic achievement. *Early childhood research quarterly*, 25(4), 464-479. <https://doi.org/10.1016/j.ecresq.2010.02.005>
- Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology*, 13(4), 333-335. <https://doi.org/10.1080/17439760.2018.1437466>
- Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3-9). Oxford University Press.
- Seligman, M. E., 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. <https://doi.org/10.1080/03054980902934563>
- Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). *Social Indicators Research*, 61(2), 121-145. <https://doi.org/10.1023/A:1021326822957>
- Settersten, R. A., McClelland, M. M., & Miao, A. (2014). Child wellbeing and the lifecourse. In Ben-Arieh, A., Casas, F., Frønes, I., Korbin, J. (Eds.) *Handbook of child wellbeing: Theories, methods and policies in global perspective*. Springer: Dordrecht, Heidelberg, New York and London, 1679-1711.
- Shek, D. T., & Lin, L. (2014). Personal well-being and family quality of life of early adolescents in Hong Kong: Do economic disadvantage and time matter?. *Social Indicators Research*, 117(3), 795-809. <https://doi.org/10.1007/s11205-013-0399-3>
- Shin, D.C. and Johnson, D.M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research* 5, 475-492. <https://doi.org/10.1007/BF00352944>
- Shmotkin, D. (1990). Subjective well-being as a function of age and gender: A multivariate look for differentiated trends. *Social Indicators Research*, 23(3), 201-230. <https://doi.org/10.1007/BF00293643>
- Shochat, T., Cohen-Zion, M., & Tzischinsky, O. (2014). Functional consequences of inadequate sleep in adolescents: a systematic review. *Sleep Medicine Reviews*, 18(1), 75-87. <https://doi.org/10.1016/j.smr.2013.03.005>
- Shochet, I. M., Dadds, M. R., Ham, D., & Montague, R. (2006). School Connectedness Is an Underemphasized Parameter in Adolescent Mental Health: Results of a Community Prediction Study. *Journal of Clinical Child and Adolescent Psychology*, 35(2), 170-179. [https://doi.org/10.1207/s15374424jccp3502\\_1](https://doi.org/10.1207/s15374424jccp3502_1)
- Shochet, I. M., Dadds, M. R., Holland, D., Whitefield, K., Harnett, P. H., & Osgarby, S. M. (2001). The efficacy of a universal school-based program to prevent adolescent depression. *Journal of Clinical Child Psychology*, 30(3), 303-315. [https://doi.org/10.1207/S15374424JCCP3003\\_3](https://doi.org/10.1207/S15374424JCCP3003_3)
- Shoshani, A., Steinmetz, S., & Kanat-Maymon, Y. (2016). Effects of the Maytiv positive psychology school program on early adolescents' well-being, engagement, and achievement. *Journal of school psychology*, 57, 73-92. <https://doi.org/10.1016/j.jsp.2016.05.003>
- Shucksmith, J., Summerbell, C., Jones, S., & Whittaker, V. (2007). Mental wellbeing of children in primary education (targeted/indicated activities). In Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews. Centre for Reviews and Dissemination (UK). <https://www.ncbi.nlm.nih.gov/books/NBK73846/>
- Sibley, B. A., & Etnier, J. L. (2003). The relationship between physical activity and cognition in children: a meta-analysis. *Pediatric Exercise Science*, 15(3), 243-256. <https://doi.org/10.1123/pes.15.3.243>
- Silvers, J. A., Callaghan, B. L., VanTieghem, M., Choy, T., O'Sullivan, K., & Tottenham, N. (2021). An exploration of amygdala-prefrontal mechanisms in the intergenerational transmission of learned fear. *Developmental Science*, 24(3), e13056. <https://doi.org/10.1111/desc.13056>
- Simetin, I. P., Kuzman, M., Frelanic, I. P., Pristas, I., Benjak, T., & Dezeljin, J. D. (2011). Inequalities in Croatian pupils' unhealthy behaviours and health outcomes: role of school, peers and family affluence. *European Journal of Public Health*, 21(1), 122-128. <https://doi.org/10.1093/eurpub/ckq002>
- Singh, K., Ruch, W., & Junnarkar, M. (2015). Effect of the demographic variables and psychometric properties of the personal well-being index for school children in India. *Child Indicators Research*, 8(3), 571-585. <https://doi.org/10.1007/S12187-014-9264-4>
- Singletary, J. H., Bartle, C. L., Svirydenka, N., Suter-Giorgini, N. M., Cashmore, A. M., & Dogra, N. (2015). Young people's perceptions of mental and physical health in the context of general wellbeing. *Health Education Journal*, 74(3), 257-269. <https://doi.org/10.1177/0017896914533219>

- Sisk, V. F., Burgoyne, A. P., Sun, J., Butler, J. L., & Macnamara, B. N. (2018). To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses.
- Sklad, M., Diekstra, R., Ritter, M. D., Ben, J., & Gravesteyn, C. (2012). Effectiveness of school-based universal social, emotional, and behavioral programs: Do they enhance students' development in the area of skill, behavior, and adjustment?. *Psychology in the Schools*, 49(9), 892-909. <https://doi.org/10.1002/pits.21641>
- Slemp, G. R., Kern, M. L., Patrick, K. J., & Ryan, R. M. (2018). Leader autonomy support in the workplace: A meta-analytic review. *Motivation and Emotion*, 42(5), 706–724. <https://doi.org/10.1007/s11031-018-9698-y>
- Smedegaard, S., Christiansen, L. B., Lund-Cramer, P., Bredahl, T., & Skovgaard, T. (2016). Improving the well-being of children and youths: a randomized multicomponent, school-based, physical activity intervention. *BMC Public Health*, 16(1), 1-11. <https://doi.org/10.1186/s12889-016-3794-2>
- Smith, A. L. (2003). Peer relationships in physical activity contexts: A road less traveled in youth sport and exercise psychology research. *Psychology of Sport and Exercise*, 4(1), 25–39. [https://doi.org/10.1016/S1469-0292\(02\)00015-8](https://doi.org/10.1016/S1469-0292(02)00015-8)
- Smith, J. D., Schneider, B. H., Smith, P. K., & Ananiadou, K. (2004). The Effectiveness of Whole-School Antibullying Programs: A Synthesis of Evaluation Research. *School Psychology Review*, 33(4), 547–560. <https://njbullying.org/documents/smith04B.pdf>
- Smith, S. W., Daunic, A. P., Miller, M. D., & Robinson, T. R. (2002). Conflict resolution and peer mediation in middle schools: extending the process and outcome knowledge base. *The Journal of Social Psychology*, 142(5), 567–586. <https://doi.org/10.1080/00224540209603919>
- Social Indicators Research, 106(2), 287–305. <https://doi.org/10.1007/s11205-011-9804-y>
- Soutter, A. (2011). What Can We Learn about Wellbeing in School?. *The Journal of Student Wellbeing* 5(1). <https://doi.org/10.21913/JSW.v5i1.729>.
- Spence, S. H., & Shortt, A. L. (2007). Research Review: Can we justify the widespread dissemination of universal, school-based interventions for the prevention of depression among children and adolescents?. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 48(6), 526–542. <https://doi.org/10.1111/j.1469-7610.2007.01738.x>
- Spilt, J. L., Koomen, H. M., & Thijs, J. T. (2011). Teacher wellbeing: The importance of teacher–student relationships. *Educational psychology review*, 23(4), 457-477. <https://doi.org/10.1007/s10648-011-9170-y>
- Stanescu, D. F., & Romer, G. (2011). Family functioning and adolescents' psychological well-being in families with a TBI parent. *Psychology*, 2(7), 681–686. <https://doi.org/10.4236/psych.2011.27104>
- Statham, J., & Chase, E. (2010). Childhood Wellbeing: A Brief Overview. Child Wellbeing Research Centre. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/183197/Child-Wellbeing-Brief.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/183197/Child-Wellbeing-Brief.pdf)
- Steinmayr, R., Wirthwein, L., Modler, L., & Barry, M. M. (2019). Development of subjective well-being in adolescence. *International Journal of Environmental Research and Public Health*, 16(19), 3690. <https://doi.org/10.3390/ijerph16193690>
- Stevahn, L. et al (1996). The Impact of a Cooperative or Individualistic Context on the Effectiveness of Conflict Resolution Training. *American Educational Research Journal*, 33(4), 801-823. <https://doi.org/10.2307/1163416>
- Stevahn, L. et al (2002). Effects of conflict resolution training integrated into a high school social studies curriculum. *Journal of Social Psychology*, 142(3), 305-331. <https://doi.org/10.1080/00224540209603902>
- Stiglic, N., & Viner, R. M. (2019). Effects of screentime on the health and well-being of children and adolescents: a systematic review of reviews. *BMJ Open*, 9(1), e023191. <https://doi.org/10.1136/bmjopen-2018-023191>
- Stoel, C. F., & Thant, T. (2002). Teachers' professional lives: A view from nine industrialized countries. Washington, DC: Council for Basic Education & The Milken Family Foundation.
- Strong, W. B., Malina, R. M., Blimkie, C. J., Daniels, S. R., Dishman, R. K., Gutin, B., Hergenroeder, A. C., Must, A., Nixon, P. A., Pivarnik, J. M., Rowland, T., Trost, S., & Trudeau, F. (2005). Evidence based physical activity for school-age youth. *The Journal of Pediatrics*, 146(6), 732–737. <https://doi.org/10.1016/j.jpeds.2005.01.055>
- Strózik, D., Strózik, T. & Szwarc, K. (2016). The Subjective Well-Being of School Children. The First Findings from the Children's Worlds Study in Poland. *Child Indicators Research*, 9, 39–50. <https://doi.org/10.1007/s12187-015-9312-8>
- Suldo, S. M., & Huebner, E. S. (2004). Does life satisfaction moderate the effects of stressful life events on psychopathological behavior during adolescence? *School Psychology Quarterly*, 19(2), 93–105. <https://doi.org/10.1521/scpq.19.2.93.33313>
- Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research*, 78(2), 179–203. <https://doi.org/10.1007/s11205-005-8208-2>

- Suldo, S. M., & Shaunessy-Dedrick, E. (2013). The psychosocial functioning of high school students in academically rigorous programs. *Psychology in the Schools, 50*(8), 823-843. <https://doi.org/10.1002/pits.21708>
- Suldo, S. M., Friedrich, A. A., White, T., Farmer, J., Minch, D., & Michalowski, J. (2009). Teacher support and adolescents' subjective well-being: A mixed-methods investigation. *School Psychology Review, 38*(1), 67-85.
- Suldo, S. M., McMahan, M. M., Chappel, A. M., & Loker, T. (2012). Relationships between perceived school climate and adolescent mental health across genders. *School Mental Health: A Multidisciplinary Research and Practice Journal, 4*(2), 69–80. <https://doi.org/10.1007/s12310-012-9073-1>
- Suldo, S. M., Riley, K. N., & Shaffer, E. J. (2006). Academic Correlates of Children and Adolescents' Life Satisfaction. *School Psychology International, 27*(5), 567–582. <https://doi.org/10.1177/0143034306073411>
- Suldo, S. M., Shaffer, E. J., & Riley, K. N. (2008). A social-cognitive-behavioral model of academic predictors of adolescents' life satisfaction. *School Psychology Quarterly, 23*(1), 56–69. <https://doi.org/10.1037/1045-3830.23.1.56>
- Tamnes, C. K., Herting, M. M., Goddings, A. L., Meuwese, R., Blakemore, S. J., Dahl, R. E., ... & Mills, K. L. (2017). Development of the cerebral cortex across adolescence: a multisample study of inter-related longitudinal changes in cortical volume, surface area, and thickness. *Journal of Neuroscience, 37*(12), 3402-3412.
- Tebben, E., Lang, S. N., Sproat, E., Tyree Owens, J., & Helms, S. (2021). Identifying primary and secondary stressors, buffers, and supports that impact ECE teacher wellbeing: implications for teacher education. *Journal of Early Childhood Teacher Education, 42*(2), 143-161. <https://doi.org/10.1080/10901027.2021.1918294>
- Tennant, J. E., Demaray, M. K., Malecki, C. K., Terry, M. N., Clary, M., & Elzinga, N. (2015). Students' ratings of teacher support and academic and social-emotional well-being. *School Psychology Quarterly, 30*(4), 494–512. <https://doi.org/10.1037/spq0000106>
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*, Article 63. <https://doi.org/10.1186/1477-7525-5-63>
- Thacher, P. V., & Onyper, S. V. (2016). Longitudinal outcomes of start time delay on sleep, behavior, and achievement in high school. *Sleep: Journal of Sleep and Sleep Disorders Research, 39*(2), 271–281. <https://doi.org/10.5665/sleep.5426>
- Thapa, A. (2013). School Climate Research. *Review of Educational Research, 83*(3), 357-385. <https://doi.org/10.3102/0034654313483907>
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research, 83*(3), 357–385. <https://doi.org/10.3102/0034654313483907>
- Thapar, A., Stewart-Brown, S., & Harold, G. T. (2021). What has happened to children's wellbeing in the UK?. *The lancet. Psychiatry, 8*(1), 5–6. [https://doi.org/10.1016/S2215-0366\(20\)30481-8](https://doi.org/10.1016/S2215-0366(20)30481-8)
- The Children's Society. (2015). The Good Child Report 2015. <https://www.york.ac.uk/inst/spru/research/pdf/GCReport2015.pdf>
- The Children's Society. (2017). The Good Childhood Report 2017. [https://www.york.ac.uk/media/spru/PCR136a\\_Good%20Childhood%202017\\_V4\\_LOW%20RES.PDF](https://www.york.ac.uk/media/spru/PCR136a_Good%20Childhood%202017_V4_LOW%20RES.PDF)
- The Educational and Developmental Psychologist, 36(1), 16-21. <https://doi.org/10.1017/edp.2019.1>
- The United Nations. (1989). Convention on the Rights of the Child. Treaty Series, 1577, 3. [https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch\\_IV\\_11p.pdf](https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf)
- Tian, L., Wang, D., & Huebner, E. S. (2015). Development and validation of the Brief Adolescents' Subjective Well-Being in School Scale (BASWBSS). *Social Indicators Research, 120*(2), 615–634. <https://doi.org/10.1007/s11205-014-0603-0>
- Tiliouine, H. (2015). School bullying victimisation and subjective well-being in Algeria. *Child Indicators Research, 8*(1), 133-150. <https://doi.org/10.1007/s12187-014-9286-y>
- Tillmann, S., Tobin, D., Avison, W., & Gilliland, J. (2018). Mental health benefits of interactions with nature in children and teenagers: a systematic review. *Journal of Epidemiology and Community Health, 72*(10), 958. doi:10.1136/jech-2018-210436
- Timmons, B. W., Leblanc, A. G., Carson, V., Connor Gorber, S., Dillman, C., Janssen, I., Kho, M. E., Spence, J. C., Stearns, J. A., & Tremblay, M. S. (2012). Systematic review of physical activity and health in the early years (aged 0-4 years). *Applied physiology, nutrition, and metabolism = Physiologie appliquee, nutrition et metabolisme, 37*(4), 773–792. <https://doi.org/10.1139/h2012-070>
- Tobia, V., Greco, A., Steca, P., & Marzocchi, G. (2019). Children's Wellbeing at School: A Multi-dimensional and Multi-informant Approach. *Journal of Happiness Studies, 20*(5). <https://doi.org/10.1007/s10902-018-9974-2>

- Tomyn, A. J., & Cummins, R. A. (2011). The subjective wellbeing of high-school students: Validating the Personal Wellbeing Index—School Children. *Social Indicators Research*, 101(3), 405–418. <https://doi.org/10.1007/s11205-010-9668-6>
- Tonelli, S., Drobnič, S., & Huinink, J. (2021). Child-related family policies in East and Southeast Asia: An intra-regional comparison. *International Journal of Social Welfare*, 30(4), 385–395. <https://onlinelibrary.wiley.com/doi/full/10.1111/ijsw.12485>
- Topp C.W., Østergaard S.D., Søndergaard S., & Bech P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics*, 84, 167–176. <https://doi.org/10.1159/000376585>.
- Torsheim, T., & Wold, B. (2001). School-related stress, support, and subjective health complaints among early adolescents: a multilevel approach. *Journal of Adolescence*, 24(6), 701–713. <https://doi.org/10.1006/jado.2001.0440>
- Tran, Q.D., & Richey, C.A. (1997). Family Functioning and Psychological Well-Being in Vietnamese Adolescents. *Journal of Sociology and Social Welfare*, 24(1) 4. <https://scholarworks.wmich.edu/jssw/vol24/iss1/4>
- Tromans, S., Chester, V., Harrison, H., Pankhania, P., Booth, H., & Chakraborty, N. (2020). Patterns of use of secondary mental health services before and during COVID-19 lockdown: observational study. *BJPsych Open*, 6(6), e117. <https://doi.org/10.1192/bjo.2020.104>
- Tso, W. W., Wong, R. S., Tung, K. T., Rao, N., Fu, K. W., Yam, J. C., Wong, I. C et al., (2020). Vulnerability and resilience in children during the COVID-19 pandemic. *European Child & Adolescent Psychiatry*, 1-16. <https://doi.org/10.1007/s00787-020-01680-8>
- Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology*, 7(1), 27–56. <https://doi.org/10.1007/s11292-010-9109-1>
- Ttofi, M. M., Farrington, D. P., Lösel, F., & Loeber, R. (2011). Do the victims of school bullies tend to become depressed later in life? A systematic review and meta-analysis of longitudinal studies. *Journal of Aggression, Conflict and Peace Research*, 3(2), 63–73. <https://doi.org/10.1108/17596591111132873>
- Twenge, J. M. (2015). The age in which we live and its impact on the person. In K. J. Reynolds & N. R. Branscombe (Eds.), *Psychology of change: Life contexts, experiences, and identities* (pp. 44–58). Psychology Press.
- Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science*, 6(1), 3–17. <https://doi.org/10.1177/2167702617723376>
- Twenge, J. M., Spitzberg, B. H., & Campbell, W. K. (2019). Less in-person social interaction with peers among US adolescents in the 21st century and links to loneliness. *Journal of Social and Personal Relationships*, 36(6), 1892–1913. <https://doi.org/10.1177/0265407519836170>
- UNESCO. (2016). Education 2030 Incheon Declaration and Framework for Action. Towards inclusive and equitable quality education and lifelong learning for all. <http://unesdoc.unesco.org/images/0024/002456/245656e.pdf>
- UNESCO. (2016). UNESCO Strategy on Education for Health and Well-Being: Contributing to the Sustainable Development Goals. <https://unesdoc.unesco.org/ark:/48223/pf0000246453>
- UNICEF (2019). The State of the World's Children 2019. Children, Food and Nutrition: Growing well in a changing world. UNICEF, New York. <https://www.unicef.org/reports/state-of-worlds-children-2019>
- UNICEF (2020). One in five children globally does not have enough water to meet their everyday needs. <https://www.unicef.org/press-releases/one-five-children-globally-does-not-have-enough-water-meet-their-everyday-needs>
- UNICEF (2020). Worlds of Influence: Understanding what shapes child well-being in rich countries. Innocenti Report Card 16, UNICEF Office of Research – Innocenti, Florence. <https://www.unicef-irc.org/child-well-being-report-card-16>
- UNICEF (2021, March 17). One in five children globally does not have enough water to meet their everyday needs – UNICEF: UNICEF launches new initiative, Water Security for All, to mobilize global support and resources to reach children in water vulnerable hotspots. UNICEF.
- UNICEF Innocenti (2020). 'Worlds of Influence: Understanding what shapes child well-being in rich countries', Innocenti Report Card 16, UNICEF Office of Research – Innocenti, Florence.
- UNICEF Office of Research (2013). 'Child Well-being in Rich Countries: A comparative overview', Innocenti Report Card 11, UNICEF Office of Research, Florence.
- UNICEF. (2017). Building the future: Children and the sustainable development goals in rich countries.
- Unterbrink, T., Hack, A., Pfeifer, R., Buhl-Grießhaber, V., Müller, U., Wesche, H., ... & Bauer, J. (2007). Burnout and

- effort–reward-imbalance in a sample of 949 German teachers. *International Archives of Occupational and Environmental Health*, 80(5), 433–441. <https://doi.org/10.1007/s00420-007-0169-0>
- Ussher, M. H., Owen, C. G., Cook, D. G., & Whincup, P. H. (2007). The relationship between physical activity, sedentary behaviour and psychological wellbeing among adolescents. *Social Psychiatry and Psychiatric Epidemiology*, 42(10), 851–856. <https://doi.org/10.1007/s00127-007-0232-x>
- van Bon-Martens, M., Vonk, R., & Stevens, G. (2020). Trends over time in adolescent emotional wellbeing in the Netherlands, 2005–2017: links with perceived schoolwork pressure, parent-adolescent communication and bullying victimization. *Journal of Youth and Adolescence*, 49(10), 2124–2135. <https://doi.org/10.1007/s10964-020-01280-4>
- Van Schoiack-Edstrom, L., et al (2002). Changing Adolescents' Attitudes about Relational and Physical Aggression: An Early Evaluation of a School-Based Intervention. *School Psychology Review*, 31(2), 201–16. <https://doi.org/10.1080/02796015.2002.12086151>
- Veenhoven R. (2005) Is Happiness a Trait?. In: Michalos A.C. (eds) *Citation Classics from Social Indicators Research*. Social Indicators Research Series, vol 26. Springer, Dordrecht. [https://doi.org/10.1007/1-4020-3742-2\\_17](https://doi.org/10.1007/1-4020-3742-2_17)
- Verkuyten, M., & Thijs, J. (2002). School satisfaction of elementary school children: The role of performance, peer relations, ethnicity and gender. *Social Indicators Research*, 59(2), 203–228. <https://doi.org/10.1023/A:1016279602893>
- Verplanken, B., & Velsvik, R. (2008). Habitual negative body image thinking as psychological risk factor in adolescents. *Body Image*, 5(2), 133–140. <https://doi.org/10.1016/j.bodyim.2007.11.001>
- Viejo, C., Gómez-López, M., & Ortega-Ruiz, R. (2018). Adolescents' Psychological Well-Being: A Multidimensional Measure. *International Journal of Environmental Research and Public Health*, 15(10), 2325. <https://doi.org/10.3390/ijerph15102325>
- Vieno, A., Santinello, M., Pastore, M., & Perkins, D. D. (2007). Social support, sense of community in school, and self-efficacy as resources during early adolescence: an integrative model. *American Journal of Community Psychology*, 39(1–2), 177–190. <https://doi.org/10.1007/s10464-007-9095-2>
- Vijayakumar, N., Allen, N. B., Youssef, G., Dennison, M., Yücel, M., Simmons, J. G., & Whittle, S. (2016). Brain development during adolescence: A mixed-longitudinal investigation of cortical thickness, surface area, and volume. *Human brain mapping*, 37(6), 2027–2038.
- Viner, R. M., Russell, S., Saulle, R., Croker, H., Stansfield, C., Packer, J., ... & Minozzi, S. (2021). Impacts of school closures on physical and mental health of children and young people: a systematic review. *MedRxiv*.
- Vreeman, R. C., & Carroll, A. E. (2007). A systematic review of school-based interventions to prevent bullying. *Archives of Pediatrics & Adolescent Medicine*, 161(1), 78–88. <https://doi.org/10.1001/archpedi.161.1.78>
- Vukasović, T., & Bratko, D. (2015). Heritability of personality: A meta-analysis of behavior genetic studies. *Psychological Bulletin*, 141(4), 769–785. <https://doi.org/10.1037/bul0000017>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* Cambridge, Mass: Harvard University Press.
- Waddell, C., Hua, J.M., Garland, O.M., Peters, R. D., & McEwan, K. (2007). Preventing mental disorders in children: A systematic review to inform policy-making. *Canadian Journal of Public Health*, 98, 166–173. <https://doi.org/10.1007/BF03403706>
- Wagmiller, R. L., & Adelman, R. M. (2009). Childhood and intergenerational poverty: The long-term consequences of growing up poor. *Columbia Academic Commons*. <https://doi.org/10.7916/D8MP5C0Z>
- Wahyuningsih, H., Kusumaningrum, F. A., & Novitasari, R. (2020). Parental marital quality and adolescent psychological well-being: A meta-analysis. *Cogent Psychology*, 7(1), Article 1819005. <https://doi.org/10.1080/23311908.2020.1819005>
- Waite, P., Dr, Pearcey, S., Shum, A., Raw, J., Patalay, P., & Creswell, C. (2020). How did the mental health of children and adolescents change during early lockdown during the COVID-19 pandemic in the UK?. *PsyArXiv*. <https://doi.org/10.31234/osf.io/t8rfx>
- Wakefield, W. D., & Hudley, C. (2007). Ethnic and racial identity and adolescent well-being. *Theory into practice*, 46(2), 147–154. <https://www.jstor.org/stable/40071481>
- Waldon, J., Vriend, J., Davidson, F., & Corkum, P. (2018). Sleep and Attention in Children With ADHD and Typically Developing Peers. *Journal of attention disorders*, 22(10), 933–941. <https://doi.org/10.1177/1087054715575064>
- Walsh, S. D., Harel-Fisch, Y., & Fogel-Grinvald, H. (2010). Parents, teachers and peer relations as predictors of risk behaviors and mental well-being among immigrant and Israeli born adolescents. *Social Science & Medicine* (1982), 70(7), 976–984. <https://doi.org/10.1016/j.socscimed.2009.12.010>
- Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on

- student outcomes. *Educational Psychology Review*, 28(2), 315-352. <https://doi.org/10.1007/s10648-015-9319-1>
- Wang, M. T., Selman, R. L., Dishion, T. J., & Stormshak, E. A. (2010). A Tobit Regression Analysis of the Covariation between Middle School Students' Perceived School Climate and Behavioral Problems. *Journal of Research on Adolescence: the official journal of the Society for Research on Adolescence*, 20(2), 274-286. <https://doi.org/10.1111/j.1532-7795.2010.00648.x>
- Wang, M.-T., L. Degol, J., Amemiya, J., Parr, A., & Guo, J. (2020). Classroom climate and children's academic and psychological wellbeing: A systematic review and meta-analysis. *Developmental Review*, 57, 100912. doi:<https://doi.org/10.1016/j.dr.2020.100912>
- Wang, Y., Xu, B., Zhao, G., Cao, R., He, X., & Fu, S. (2011). Is quarantine related to immediate negative psychological consequences during the 2009 H1N1 epidemic?. *General Hospital Psychiatry*, 33(1), 75-77. <https://doi.org/10.1016/j.genhosppsych.2010.11.001>
- Warren, J. S. et al (2006). School-Wide Positive Behavior Support: Addressing Behavior Problems that Impede Student Learning. *Educational Psychology Review*; 18(2) 187-198. <https://doi.org/10.1007/s10648-006-9008-1>
- Washbrook, E., Gregg, P., & Propper, C. (2014). A decomposition analysis of the relationship between parental income and multiple child outcomes. *Journal of the Royal Statistical Society*, 177(4), 757-782. <https://doi.org/10.1111/rssa.12074>
- Wassef, A., Collins, M. L., Ingham, D., & Mason, G. (1995). In search of effective programs to address students' emotional distress and behavioral problems. Part II: Critique of school- and community-based programs. *Adolescence*, 30(120), 757-777.
- Watkins, P. C., Woodward, K., Stone, T., & Kolts, R. L. (2003). Gratitude and happiness: Development of a measure of gratitude, and relationships with subjective well-being. *Social Behavior and Personality: an International Journal*, 31(5), 431-451. <https://doi.org/10.2224/sbp.2003.31.5.431>
- Watson, R. E., DeSesso, J. M., Hurtt, M. E., & Cappon, G. D. (2006). Postnatal growth and morphological development of the brain: a species comparison. *Birth Defects Research Part B: Developmental and Reproductive Toxicology*, 77(5), 471-484.
- Weare, K. (2015). What works in promoting social and emotional well-being and responding to mental health problems in schools? Advice for Schools and Framework Document. London: National Children's Bureau. <https://www.walworth.durham.sch.uk/wp-content/uploads/sites/59/2017/09/Promoting-Social-Emotional-Well-being-etc-NCB.pdf>
- Weare, K., & Nind, M. (2011). Mental health promotion and problem prevention in schools: what does the evidence say?. *Health Promotion International*, 26(1), i29-i69. <https://doi.org/10.1093/heapro/dar075>
- Webster, D., Dunne, L., & Hunter, R. (2021). Association between social networks and subjective well-being in adolescents: a systematic review. *Youth & Society*, 53(2), 175-210. <https://doi.org/10.1177/0044118X20919589>
- Weiss, B., Harris, V., Catron, T., & Han, S. S. (2003). Efficacy of the RECAP intervention program for children with concurrent internalizing and externalizing problems. *Journal of Consulting and Clinical Psychology*, 71(2), 364-374. <https://doi.org/10.1037/0022-006X.71.2.364>
- Weissberg, R. P., & Greenberg, M. T. (1998). School and Community Competence-Enhancement and Prevention Programs. In W. Damon, I. E. Sigel, & K. A. Renninger (Eds.), *Handbook of child psychology: Child psychology in practice* (pp. 877-954). John Wiley & Sons Inc.
- Wells, J., Barlow, J., & Stewart-Brown, S. (2003). A systematic review of universal approaches to mental health promotion in schools. *Health Education*, 103(4), 197-220. <https://doi.org/10.1108/09654280310485546>
- Welsh Assembly Government (2010). Thinking positively: Emotional health and wellbeing in schools and Early Years settings. Cymry Ifanc Young Wales. <https://gov.wales/sites/default/files/publications/2018-12/thinking-positively-emotional-health-and-well-being-in-schools-and-early-years-settings.pdf>
- Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Cornell University Press.
- Western Australian (2021). Australian Student Wellbeing Framework. <https://studentwellbeinghub.edu.au/educators/frameworkrk/>
- WHO (2020). Adolescent Mental Health. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>
- WHO (2020). WHO report on health behaviours of 11-15-year-olds in Europe reveals more adolescents are reporting mental health concerns. WHO Regional Office for Europe. <https://www.euro.who.int/en/media-centre/sections/press-releases/2020/who-report-on-health-behaviours-of-11-15-year-olds-in-europe-reveals-more-adolescents-are-reporting-mental-health-concerns>
- WHO. (1948). Constitution of the World Health Organization. [http://www.who.int/governance/eb/who\\_constitution\\_en.pdf](http://www.who.int/governance/eb/who_constitution_en.pdf)
- WHO. (2001). *Basic documents*, 43rd Edition. Geneva, World Health Organization.

- Williamson, A. A., Mindell, J. A., Hiscock, H., & Quach, J. (2020). Longitudinal sleep problem trajectories are associated with multiple impairments in child well-being. *Journal of Child Psychology and Psychiatry*, 61(10), 1092-1103. <https://doi.org/10.1111/jcpp.13303>
- Wilson, S. J., & Lipsey, M. W. (2006). The effects of school-based social information processing interventions on aggressive behavior, Part I: Universal programs. *Campbell Systematic Reviews*, 2(1), 1-42. <https://doi.org/10.4073/csr.2006.5>
- Wilson, S., & Lipsey, M. W. (2007). School-based Interventions for Aggressive and Disruptive Behaviour. Update of a Meta-Analysis. *American Journal of Preventive Medicine*, 33(2), 130-43.
- Wilson, S., Lipsey, M., Derzon, J. (2003). The Effects of School-Based Intervention Programs on Aggressive Behavior: A Meta-Analysis. *Journal of Consulting and Clinical Psychology*, 71, 136-49. <https://doi.org/10.1037//0022-006X.71.1.136>.
- Wolpert, M., Dalzell, K., Ullman, R., Garland, L., Cortina, M., Hayes, D., Patalay, P., & Law, D. (2019). Strategies not accompanied by a mental health professional to address anxiety and depression in children and young people: a scoping review of range and a systematic review of effectiveness. *The Lancet. Psychiatry*, 6(1), 46-60. [https://doi.org/10.1016/S2215-0366\(18\)30465-6](https://doi.org/10.1016/S2215-0366(18)30465-6)
- 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 and Behavioural Difficulties*, 18(3), 270-283.
- World Health Organization. (2019). International statistical classification of diseases and related health problems (11th ed.). <https://icd.who.int/>
- Wright K. (2014). From Targeted Interventions to Universal Approaches: Historicizing Wellbeing. In Wright K., McLeod J. (Eds.), *Rethinking Youth Wellbeing*. Springer, Singapore. [https://doi.org/10.1007/978-981-287-188-6\\_12](https://doi.org/10.1007/978-981-287-188-6_12)
- Wright, A., Harris, M. G., Wiggers, J. H., Jorm, A. F., Cotton, S. M., Harrigan, S. M., Hurworth, R. E., & McGorry, P. D. (2005). Recognition of depression and psychosis by young Australians and their beliefs about treatment. *The Medical Journal of Australia*, 183(1), 18-23. <https://doi.org/10.5694/j.1326-5377.2005.tb06881.x>
- Wu, X. Y., Zhuang, L. H., Li, W., Guo, H. W., Zhang, J. H., Zhao, Y. K., Hu, J. W., Gao, Q. Q., Luo, S., Ohinmaa, A., & Veugelers, P. J. (2019). The influence of diet quality and dietary behavior on health-related quality of life in the general population of children and adolescents: a systematic review and meta-analysis. *Quality of Life Research : an International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, 28(8), 1989-2015. <https://doi.org/10.1007/s11136-019-02162-4>
- Yakovlev, P. I., Lecours, A. R., Minkowski, A., & Davis, F. A. (1967). Regional development of the brain in early life.
- Yeung, W. J., Linver, M. R., & Brooks-Gunn, J. (2002). How money matters for young children's development: parental investment and family processes. *Child Development*, 73(6), 1861-1879. <https://doi.org/10.1111/1467-8624.t01-1-00511>
- You, S., Lim, S. A., & Kim, E. K. (2018). Relationships between social support, internal assets, and life satisfaction in Korean adolescents. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 19(3), 897-915. <https://doi.org/10.1007/s10902-017-9844-3>
- Young Minds. (2021). Supporting your pupils through the COVID-19 pandemic. Young Minds Org. <https://youngminds.org.uk/resources/school-resources/supporting-your-pupils-through-the-covid-19-pandemic/>
- Zaborskis, A., Grincaite, M., Lenzi, M., Tesler, R., Moreno-Maldonado, C., & Mazur, J. (2019). Social inequality in adolescent life satisfaction: Comparison of measure approaches and correlation with macro-level indices in 41 countries. *Social Indicators Research*, 141(3), 1055-1079. <https://doi.org/10.1007/s11205-018-1860-0>
- Zacher, H., & Rudolph, C. W. (2021). Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic. *American Psychologist*, 76(1), 50-62. <https://doi.org/10.1037/amp0000702>
- Zambon, A., Lemma, P., Borraccino, A., Dalmaso, P., & Cavallo, F. (2006). Socio-economic position and adolescents' health in Italy: the role of the quality of social relations. *The European Journal of Public Health*, 16(6), 627-632. <https://doi.org/10.1093/eurpub/ckl051>
- Zappulla, C., Pace, U., Lo Cascio, V., Guzzo, G., & Huebner, E. S. (2014). Factor Structure and Convergent Validity of the Long and Abbreviated Versions of the Multidimensional Students' Life Satisfaction Scale in an Italian Sample. *Social Indicators Research*, 118(1), 57-69. doi:10.1007/s11205-013-0418-4
- Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools-a systematic review and meta-analysis. *Frontiers in Psychology*, 5, 603. <https://doi.org/10.3389/fpsyg.2014.00603>
- Zhao, N., & Zhou, G. (2020). Social Media Use and Mental Health during the COVID-19 Pandemic: Moderator Role of Disaster Stressor and Mediator Role of Negative Affect. *Applied psychology. Health and Well-being*, 12(4), 1019-1038. <https://doi.org/10.1111/aphw.12226>

Zhu, S., Wu, Y., Zhu, C. Y., Hong, W. C., Yu, Z. X., Chen, Z. K., Chen, Z. L., Jiang, D. G., & Wang, Y. G. (2020). The immediate mental health impacts of the COVID-19 pandemic among people with or without quarantine managements. *Brain, Behavior, and Immunity*, 87, 56–58. <https://doi.org/10.1016/j.bbi.2020.04.045>

Zullig, K. J., Huebner, E. S., & Patton, J. M. (2011). Relationships among school climate domains and school satisfaction. *Psychology in the Schools*, 48(2), 133–145. <https://doi.org/10.1002/pits.20532>





SUPPLEMENTARY  
MATERIALS

## 4.2.1 Literature Review

### 4.2.1.1 Approach for Literature Review

For this report we conducted a non-systematic review of reviews on the wellbeing of children and adolescents in educational settings. This review was intended to be a scoping activity to inform the report, rather than be the focus of it. We searched the leading databases for psychological and educational research: Web of science; Scopus; PubMed; ProQuest; The British Educational Index; Cochrane Central. An example of our final search strategy is given below (using the search terms and Boolean operators from Scopus).

( TITLE-ABS-KEY ( *elementary* OR *primary* OR *secondary* OR *middle* OR *high* OR *combined* OR *private* OR *boarding* OR *comprehensive* OR *nursery* OR *junior* OR *religious* ) AND TITLE ( *student\** OR *child\** OR *teen\** OR *adolescent\** OR *youth* OR "*young people*" OR *pupil\** OR *girl\** OR *boy\** OR *preadolescent\** OR *minor\** ) AND TITLE-ABS-KEY ( *school\** OR *education\** ) AND TITLE-ABS-KEY ( *wellbeing* OR *well-being* OR "*Life satisfaction*" OR "*quality of life*" OR *happy* OR *happiness* OR *affect\** OR "*social and emotional learning*" OR "*SEL*" ) AND TITLE-ABS-KEY ( *impact* OR *evaluation* OR *report* OR *bibliography* OR *review* OR "*trend analysis*" OR *rct* OR "*literature AND review*" OR "*Randomized control study*" OR *meta-analysis* ) AND NOT TITLE-ABS-KEY ( *universit\** OR "*Higher Education*" ) ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( DOCTYPE , "re" ) ) AND ( LIMIT-TO ( SUBJAREA , "PSYC" ) OR LIMIT-TO ( SUBJAREA , "SOC1" ) OR LIMIT-TO ( SUBJAREA , "NEUR" ) OR EXCLUDE ( SUBJAREA , "MEDI" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )

### 4.2.1.2 Identification and Sample Selection

- 744 articles were identified
- 316 articles remained after duplicates were removed from across databases.
- 2 reviewers (and an additional reviewer to settle discrepancies) identified 64 articles for a full text review.
- The full text review identified 25 review articles related to wellbeing in schools (covering: theory, measurements, and interventions).

### 4.2.1.3 Final Sample

## 25 Reviews focused on wellbeing in educational settings

Adams-Ojugbele, R. O., & Mashiya, N. (2020). Interventions supporting the integration of refugee children in the primary school life: Roles of the child's contexts of development. *The Journal for Transdisciplinary Research in Southern Africa*, 16(1). <https://doi.org/http://dx.doi.org/10.4102/td.v16i1.769>

Belfi, B., Goos, M., De Fraine, B., & Van Damme, J. (2012). The effect of class composition by gender and ability on secondary school students' school well-being and academic self-concept: A literature review. *Educational Research Review*, 7(1), 62–74. <https://doi.org/10.1016/j.edurev.2011.09.002>

Bennouna, C., Khauli, N., Basir, M., Allaf, C., Wessells, M., & Stark, L. (2019). School-based programs for Supporting the mental health and psychosocial wellbeing of adolescent forced migrants in high-income countries: A scoping review. *Social Science and Medicine*, 239. <https://doi.org/10.1016/j.socscimed.2019.112558>

Bowers, J. M., & Moyer, A. (2017). Effects of school start time on students' sleep duration, daytime sleepiness, and attendance: a meta-analysis. *Sleep Health*, 3(6), 423–431. <https://doi.org/10.1016/j.sleh.2017.08.004>

Cataudella, S., Carta, S., Mascia, M. L., Masala, C., Petretto, D. R., & Penna, M. P. (2021). Psychological Aspects of Students With Learning Disabilities in E-Environments: A Mini Review and Future Research Directions. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.611818>

Cunsolo, S. (2017). Subjective wellbeing during adolescence: a literature review on key factors relating to adolescent's subjective wellbeing and education outcomes. *Studi Sulla Formazione*, 20(1), 81–94. [https://doi.org/http://dx.doi.org/10.13128/Studl\\_Formaz-20941](https://doi.org/http://dx.doi.org/10.13128/Studl_Formaz-20941)

- Feldman, A. F., & Matjasko, J. L. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research, 75*(2), 159–210. <https://doi.org/10.3102/00346543075002159>
- García-Carrion, R., Villarejo, B. C., & Villardón-Gallego, L. (2019). Children and adolescents mental health: A systematic review of interaction-based interventions in schools and communities. *Frontiers in Psychology, 10*(APR). <https://doi.org/10.3389/fpsyg.2019.00918>
- Gill, A., Trask-Kerr, K., & Vella-Brodrick, D. (2021). Systematic Review of Adolescent Conceptions of Success: Implications for Wellbeing and Positive Education. *Educational Psychology Review*. <https://doi.org/10.1007/s10648-021-09605-w>
- Heyeres, M., McCalman, J., Bainbridge, R., & Redman-MacLaren, M. (2017). Staff Capacity Development Initiatives That Support the Well-being of Indigenous Children in Their Transitions to Boarding Schools: A Systematic Scoping Review. *Frontiers in Education, 2*. <https://doi.org/10.3389/educ.2017.00001>
- Kristjansson, E. A., Robinson, V., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G., MacGowan, J., Farmer, A., Shea, B. J., Mayhew, A., & Tugwell, P. (2007). School feeding for improving the physical and psychosocial health of disadvantaged elementary school children. *The Cochrane Database of Systematic Reviews, 1*(1), CD004676. <https://doi.org/10.1002/14651858.CD004676.pub2>
- Langford, R., Bonell, C. P., Jones, H. E., Poulou, T., Murphy, S. M., Waters, E., Komro, K. A., Gibbs, L. F., Magnus, D., & Campbell, R. (2014). The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *The Cochrane Database of Systematic Reviews, 4*(4), CD008958. <https://doi.org/10.1002/14651858.CD008958.pub2>
- Marques de Miranda, D., da Silva Athanasio, B., Sena Oliveira, A. C., & Simoes-e-Silva, A. C. (2020). How is COVID-19 pandemic impacting mental health of children and adolescents? *International Journal of Disaster Risk Reduction, 51*. <https://doi.org/10.1016/j.ijdrr.2020.101845>
- Marx, R., Tanner-Smith, E. E., Davison, C. M., Ufholz, L. A., Freeman, J., Shankar, R., Newton, L., Brown, R. S., Parpia, A. S., Cozma, I., & Hendriks, S. (2017). Later school start times for supporting the education, health, and well-being of high school students. *The Cochrane Database of Systematic Reviews, 7*(7), CD009467. <https://doi.org/10.1002/14651858.CD009467.pub2>
- Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., Frank, J., Burke, C., Pinger, L., Soloway, G., Isberg, R., Sibinga, E., Grossman, L., & Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness, 3*(4), 291–307. <https://doi.org/10.1007/s12671-012-0094-5>
- Miller, P. M. (2011). A critical analysis of the research on student homelessness. *Review of Educational Research, 81*(3), 308–337. <https://doi.org/10.3102/0034654311415120>
- Oldfield, J., & Jackson, T. (2019). Childhood abuse or trauma: A racial perspective. *Children Australia, 44*(1), 42–48. <https://doi.org/10.1017/cha.2018.48>
- Pillipppo, K. L., Conner, J., Davidson, S., & Pope, D. (2017). A systematic review of student self-report instruments that assess student-teacher relationships. *Teachers College Record, 119*(8). <https://doi.org/10.1177/016146811711900801>
- Ross, M. R., Powell, S. R., & Elias, M. J. (2002). New roles for school psychologists: Addressing the social and emotional learning needs of students. *School Psychology Review, 31*(1), 43–52. <https://doi.org/10.1080/02796015.2002.12086141>
- Tsang, K. L. V., Wong, P. Y. H., & Lo, S. K. (2012). Assessing psychosocial well-being of adolescents: a systematic review of measuring instruments. *Child Care, Health and Development, 38*(5), 629. <https://doi.org/http://dx.doi.org/10.1111/j.1365-2214.2011.01355.x>
- Wassef, A., Ingham, D., Collins, M. L., & Mason, G. (1995). In search of effective programs to address students' emotional distress and behavioral problems. Part I: Defining the problem. *Adolescence, 30*(119), 523–538.
- Webster, D., Dunne, L., & Hunter, R. (2021). Association Between Social Networks and Subjective Well-Being in Adolescents: A Systematic Review. *Youth and Society, 53*(2), 175–210. <https://doi.org/10.1177/0044118X20919589>
- Weissberg, R. P., & Utne O'Brien, M. (2004). What Works in School-Based Social and Emotional Learning Programs for Positive Youth Development. *Annals of the American Academy of Political and Social Science, 591*, 86–97. <https://doi.org/10.1177/0002716203260093>
- Yasutake, D., & Bryan, T. (1995). The influence of affect on the achievement and behavior of students with learning disabilities. *Journal of Learning Disabilities, 28*(6), 329–334. <https://doi.org/10.1177/002221949502800603>
- Ziporyn, T. D., Malow, B. A., Oakes, K., & Wahlstrom, K. L. (2017). Self-report surveys of student sleep and well-being: a review of use in the context of school start times. *Sleep Health, 3*(6), 498–507. <https://doi.org/10.1016/j.sleh.2017.09.0>



Wellbeing Research Centre  
The University of Oxford

@OxWellResearch  
wellbeing@hmc.ox.ac.uk

