

A Systematic Scoping Review: Assessing ‘Wholebeing’ for a School Community

Kirsty Finter

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This is to certify that:

- (i) The thesis comprises only my original work,*
- (ii) due acknowledgement has been made in the text to all other material used,*
- (iii) the thesis is less than 8000 words in length, exclusive of tables, maps, bibliographies, appendices, and footnotes.*

K. Finter

Kirsty Finter

Student number: 755766

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A Statement of Declaration

This thesis contains no material that has been accepted for the award of any other degree or diploma in any university or other institution and, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due reference is made.

The ethical principles and procedures specified by The University of Melbourne's policy document on Human Research and Experimentation have been adhered to in the preparation of this report.



Signed: Kirsty Finter

Date: 29th October 2023

Abstract

The current state of mental health in schools is on the decline. Current models of wellbeing, such as positive education, are seemingly doing little to meet the needs of schools to improve their state of ill-mental health, or to protect against future shocks. The authors suggest a new model is required to understand the educational context more effectively. This paper introduces the 'wholebeing' framework that includes and relates three major psychological concepts: illbeing, wellbeing and resilience. It then focuses on how 'illbeing' may be measured within this new model across all members of the school community (students aged 5 – 18, teachers and parents). Using a systematic scoping review of the current literature, four overall 'illbeing' tools were identified and psychometrically evaluated: the Revised Children Anxiety and Depression Scale (RCADS), the Depression, Anxiety and Stress Scale (DASS), the Positive and Negative Affect Schedule (PANAS), and the Teacher Emotional Scale (TES). After the appraisal process, the DASS-Y and DASS-21 were recommended for use by Australian students and adults, respectively. No parent scales were identified and no teacher illbeing scales were endorsed. Future studies should examine possible measures for other components of the 'wholebeing' model, specifically wellbeing and resilience. The current study hopes this information can be used by schools and policy makers to develop and utilise a consistent approach to measuring illbeing in school communities.

Mental Health in School Communities

Currently, community and research reports of mental illness, especially post-covid, suggest a rapid decline. According to the World Health Organisation (WHO; 2022) 1 in 8 people live with a mental disorder. This is estimated to be close to a billion people, 14% of those being adolescents (WHO; 2022). The most common disorders are anxiety and depression, whilst suicide is accounted for in 1 in 100 deaths worldwide (WHO-PAHO, 2022). Due to the COVID-19 pandemic, it is estimated anxiety and depressive disorders rose by approximately 25% in the first year of the pandemic (WHO; 2022). This is corroborated by independent global (e.g., Samji et al., 2022) and Australian (e.g., Li et al., 2021) studies, particularly in relation to youth under 18. The American Psychiatry Association indicate that 50% of mental illnesses begins at age 14, and 75% begin by age 24 (Anthony, 2022). These reports highlight the severity of poor mental health in our community and the vulnerability of youth across the world.

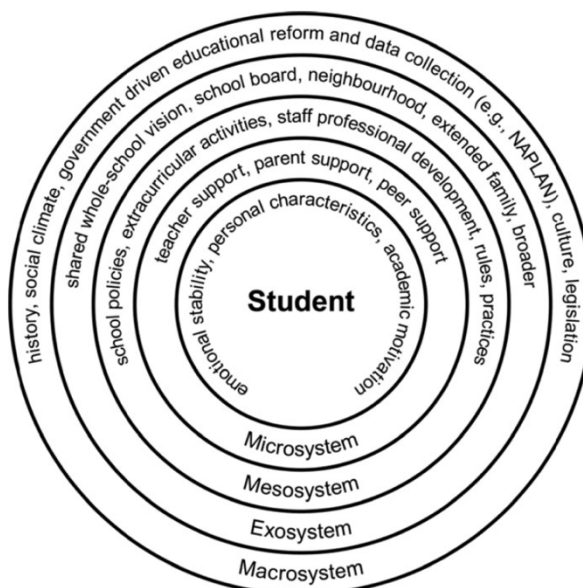
Adult's Mental Health in Schools

O'Connell et al., (2009) outlines that early detection of mental, emotional, and behavioural problems in young people is imperative and that schools are important primary care settings to facilitate this need. Therefore, it may also be beneficial to understand the current mental health of the wider school community. A young person experiences many spheres of interactions in their everyday lives (see Bronfenbrenner's ecological systems theory as in Figure 1). Teachers and parents form one such sphere, and are the cornerstone of support for young people, but unsurprisingly, their mental health is also at-risk.

Figure 1

An adapted version of Bronfenbrenner's Ecological Systems Theory to explain school belonging (Allen et al., 2016).

Kelly-Ann Allen, Dianne Vella-Brodrick and Lea Waters



Note: This model is known as the socio-ecological framework of school belonging

Prior to the COVID-19 pandemic, the state of teacher's mental health and attrition rates were already problematic. For instance, García-Carmona et al's., (2019) international systematic review found a high proportion of secondary school teachers presented with symptoms of burnout including a mean average of 21% high emotional exhaustion, 21% high depersonalisation and 47% low personal accomplishment. Carroll et al. (2022) corroborated this as they found that 55% of the 749 teachers surveyed found teaching 'very' or 'extremely' stressful. The COVID-19 pandemic put pressure on teachers due to the challenging work conditions, new responsibilities and embracing new ways of working (Beames et al., 2021). Ozamiz-Etxebarria et al., (2021) confirmed this concern in their worldwide systematic review where they found teachers reported an increase in stress from 13% to 30%, 15% to 17%

increase in anxiety, and 15% to 19% increase in depression when compared to in pre-pandemic data.

The poor mental health of teachers also has consequences for their students (Jennings & Greenberg, 2009). For instance, students are less likely to meet their academic goals, are frequently disruptive and have social and emotional difficulties when teachers have poor mental wellbeing (Jennings & Greenberg, 2009). Moreover, teachers who experience burnout may impact the school's functioning, as they may have increased absenteeism. This puts pressure on the daily organisation of schools to produce consistency in replacement teachers and effective delivery of teaching and learning for students (e.g., García-Carmona et al., 2019). These studies highlight the need to address teacher's poor mental health to improve the impact on the wider school community.

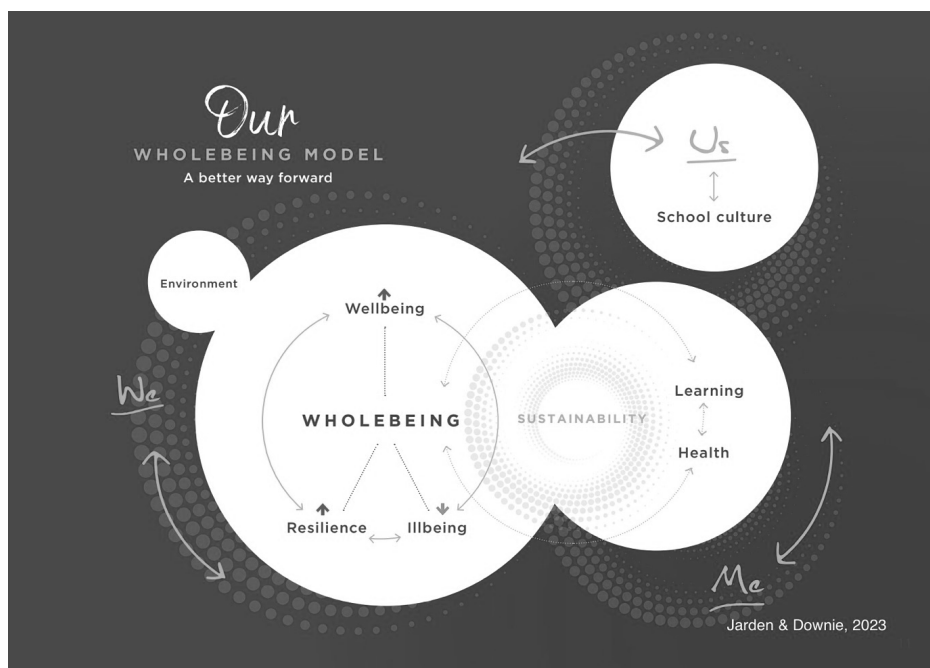
When examining parent mental health, Westrupp et al., (2023) examined parent, and family mental health and functioning in Australia during COVID-19 in comparison to pre-pandemic data. The results came from the recruitment of parents of 2365 children and adolescents during 8–28th April, 2020, during the 'level three' national lockdown. The results showed higher rates of parental stress (Mean pre-COVID. MpC = 3.99, Mean COVID. MC = 7.66, $p < 0.001$), anxiety (MpC = 1.74, MC = 2.86, $p < 0.001$), and depression (MpC = 2.57, MC = 4.82, $p < 0.001$), higher parenting irritability (MpC = 2.83, MC = 3.54, $p < 0.001$), lower family positive expressiveness (MpC = 7.44, MC = 7.16, $p < 0.001$), and higher alcohol consumption ($pC = 2.4\%$ every day, $C = 7.8\%$ every day). The study also indicated that parents with pre-existing health conditions or who experienced COVID-19 stressors were consistently positively associated with higher anxiety and depression in children, especially if the child has ADHD or ASD (positive associations between 0.2 and 0.3). These studies highlight the poor mental health of adults in school communities and their subsequent impact

on children and students. Therefore, attending to all members of the school community is imperative for the health of the system.

The ‘Wholebeing’ Model

Figure 2

The ‘Wholebeing’ Model



The ‘wholebeing’ model, as outlined in Figure 2, encompasses a ‘systems thinking approach’ (Kern et al., 2020). Jarden and Downes (2023) proposed this model using the foundations of Positive Psychology (see Seligman, 2011 for review) and Positive Education (e.g., Duckworth et al., 2004) to construct the ‘wholebeing’ framework and its components. They extended current ideas by combining wellbeing and resilience and adding illbeing to acknowledge the interrelatedness of these three constructs. The individual fields of resilience (e.g., Connor & Davidson, 2003), wellbeing (e.g., Michaelson et al., 2012), and illbeing (e.g., Ryff et al., 2006) are expansive. Despite this and the clear connection between wellbeing, illbeing, and resilience, few studies have examined their relationship, especially in

school communities. Some studies (e.g., Dunn et al., 2008; Loh et al., 2014) suggest that resilience can promote wellbeing and minimize illbeing. However, these studies were completed outside of school communities. The current state of schools, the lack of research examining the relationship between illbeing, wellbeing and resilience beckons the need for a systems approach to help address the poor mental health of schools (Kern et al., 2020).

Me, We, Us

The 'wholebeing' model takes a systems perspective (Kern et al., 2020). It encourages thinking of how the schooling system promotes personal growth and performance. The wholebeing model emphasises that to have a sense of wholebeing a student requires to have a high level of wellbeing, low level of illbeing all in the presence of resilience. This will consequently influence a person's health and conditions for learning. However, the wholebeing model showcases to school leaders how complex and interconnected we all are. The wholebeing model doesn't isolate the problem just to the individual, it acknowledges that it sits within the me, we, and us framework (Jarden & Jarden, 2016) i.e., the school environment. Emphasising the health of a person, is influenced by the health of school system.

To understand the relationships between the core constructs of 'wholebeing', each construct also requires accurate definitions and measurement. At face value, these constructs are broad and are referred to in the literature in various ways (Jarden et al., 2023). However, for the purpose of this study and to allow consistent measurement in schools, Jarden et al., (2023) stated a specific definition of the three constructs, which are as follows:

Wellbeing. The widely cited definition of wellbeing from Michaelson et al., (2012, p. 6) will be utilised, "*Wellbeing can be understood as how people feel and how they function both on a personal and social level, and how they evaluate their lives as a whole.*"

Michaelson et al. (2012) defines well-being as a state of overall well-being, good functioning,

and satisfaction of needs, and considers external conditions and personal resources. Broadly speaking, it is about what is going right for a person.

Resilience. For this study, the American Psychological Association's (2022) definition will be employed where resilience is, "*the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioural flexibility and adjustment to external and internal demands*". There are many factors that can influence a person's resilience, but researchers have evidenced that resilience can be cultivated and practiced (e.g., Shochet et al., 2001). Therefore, a person who has greater resilience may more readily be able to draw upon adaptive coping strategies.

Illbeing. Due to the myriad of ways to refer to illbeing, such as negative emotions, mental ill health or poor mental health, the dictionary definition of illbeing will be utilised. That is illbeing is "a condition of being deficient in health, happiness, or prosperity" (Merriam-Webster, 2023). Illbeing is like mental ill-health, in that poor mental health is the opposite of good mental health. In other words, illbeing, where an individual struggles to cope with the stresses of daily life, is not realising their potential, is not productive, and is not contributing to community. Thus, an individual high in illbeing may have many aspects that are going wrong than going right, such as high stress, anxiety, depressed mood, and poor relationships, absenteeism etc.

To read more about 'wholebeing' see Jarden et al.,'s (2023 in press) soon to be published manuscript.

Reviewing and Measuring Mental Health in Schools

There is currently no consistent or agreed upon approach to reviewing the mental health of schools in Australia or globally (Burns & Rapee, 2022; O'Connell et al., 2009). Universal screening of illbeing and related constructs have been widely supported for use in school communities (e.g., Glover & Albers, 2007) but remain relatively uncommon (Burns &

Rapee, 2022). Universal screening can help to provide a prevention model enabling schools to directly target and address those at risk. O'Connell et al., (2009) addresses the need for a consensus on using instruments in schools as they are an important primary care setting able to facilitate early detection of mental, emotional, and behavioural problems in young people. As described previously, it is also beneficial to monitor all school community members, not just students.

Assessment Tools for Students

A variety of tools can be used to assess student mental health. Levitt et al., (2007) outline broad, specialised, and targeted tools available for schools in America. For the broad or universal tools, they outline the use of the Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997), Pediatric Symptom Checklist (PSC-35; Jellinek et al., 1986) and Pediatric Symptom Checklist (PSC-17; Gardner et al., 1999), with a range of informants such as parents, teachers, and youth self-report. However, this was done with the American student population in mind, not the entire school community. Nevertheless, this review still highlights the importance of early detection and assessment for preventing the deteriorating mental health in youth as well as offering targeted intervention.

In Australia, the use of universal screening tools is highly dependent on the setting, especially in the independent school sector where school autonomy is highest. The Positive Education Schools Association (Holland, 2023), who have a range of members across Australia and the world, indicate that it is crucial to measure wellbeing in the school setting to help track intervention progress and monitor the health of the system. However, they do not advocate for a consistent tool but offer a variety of options such as the authentic happiness questionnaire (Sheppard et al., 2015), SDQ, (Goodman, 1997), PERMA profiler (Bulter & Kern, 2016), The Warwick-Edinburgh Mental Wellbeing Scale (Warwick Medical

School, 2007) etc (Wellbeing in Your School: A Guide to Understanding and Implementing Positive Education and Wellbeing Science, 2022).

Within states in Australia, government school functioning may be measured using a variety of sources. In Victoria, Australia, for instance, students take the 'Attitudes to School Survey' (Victorian State Government: Education and Training, 2022). The domains measure student learning, school engagement, and student health and wellbeing. The objectives of the survey and how schools use the data is relatively unclear to the public. However, schools are encouraged to use the data for future planning. In New South Wales, Australia, students take the 'Tell Them From Me' survey that measures student engagement, wellbeing, and effective teaching practices at their school (NSW Government: Education, 2023). These assessment tools do have variations for students, teachers, and parents.

Assessment Tools for Teachers and Parents

In addition to the government school tools stated above, several other measures are available for use in adults of school communities. A UK study (Blanden et al., 2021) examined parents mental health in relation to school closures by using the General Health Questionnaire (GHQ; Goldberg & Williams, 1988) that asks people to rate how recently they have experienced a particular symptom or behaviour. Hou et al., (2021) devised the Wellbeing literacy 6-item (Well-Lit 6) scale to measure wellbeing literacy in the Australian education context. This can be administered for students, school staff and parents. Further, the Australian Institute of Teacher and School Leadership (AITSL, 2022) outline the wellbeing surveys available for teachers in Australia such as the Teacher Subjective Wellbeing Questionnaire (Renshaw et al., 2015), and organisations that measure wellbeing. These tools show a variety of constructs measured and tools available for use in school communities.

In summary, there is a need to evaluate the mental health of all members of the school community and track intervention outcomes effectively and consistently. However, at present there are a myriad of tools available and differing approaches to measuring the mental health of school communities, often measuring a variety of illbeing, resilience or wellbeing. For the purposes of the current study, it will be focusing solely on measurement of the 'illbeing' component of the 'wholebeing' model. Separate reviews will be conducted for the other aspects of this model. This will help schools to employ select assessments from an available battery to review the mental health of their school.

The Current Research

The purpose of this study is to develop recommendations for assessment tools that assess and evaluate 'illbeing' within a school community. The study will focus on illbeing partly due to the urgency and rise of poor mental health in schools. The study aims to identify an assessment tool to evaluate illbeing across all age groups, including the adults, that make up the school community (e.g., students, teachers, staff, parents etc.).

To summarise, there are two key aims for the current research:

1. Identify currently available assessment tools in the research literature that measure illbeing across the school community, including students aged 5-18 and adults (parents and teachers).
2. Evaluate the psychometric properties of the identified assessment tools to recommend the most optimal tool across the ages of 5-18 and adults in Australia.

Methodology

To complete this review, a two-pronged approach was utilised. This was to enable a review of the existing literature on one major dimension of wholebeing, specifically illbeing, relevant to an entire school community. First, a systematic scoping review was conducted for illbeing. A previous approach developed by Linden et al., (2022), who completed a similar study of resilience scales in post-secondary students, helped inform the current study design. The Preferred Reporting Items for Systematic Reviews and Meta-analysis Protocols Extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018) was devised by a research team (AJ, KF) and applied. The final protocol was registered prospectively with the Open Science Framework on 18 August 2023 (<https://osf.io/x7nsu>). The second part of the study required an appraisal process of the instruments identified and their psychometrics. Glover and Albers (2007), Linden et al., (2022) and Pallant (2020) helped inform the appraisal of the selected instrument’s psychometric properties as well as additional considerations to help evaluate universal screening assessments for school-based prevention strategies. The selected scales are intended for use in the population groups: 5 –18-year-old, teachers, parents, and other school staff.

Table 1

EBSCO-Host key word search strategy

Wholebeing Construct	Keywords
Illbeing	TI ((rating OR scale OR index OR questionnaire* OR tool* OR inventor* OR measure OR item* OR instrument) AND (illbeing OR ill-being OR “ill being” OR “poor mental health” OR “mental ill-health” OR “mental ill health” OR anxi* OR stress) AND (illbeing OR ill-being OR “ill being” OR “poor mental health” OR “mental ill-health” OR “mental ill health” OR depress* OR anxi* OR stress) AND (student* OR pupil* OR learner* OR teacher* OR educat* OR school OR adolescent* OR child* OR parent OR “school community” OR youth))

Eligibility Criteria

The current study aimed to develop eligibility criteria that encapsulates the target population and intended construct. Key terms were based on the illbeing construct (e.g., poor mental health, mental ill-health, anxiety, depression, stress; Jarden et al., 2023; Ryff et al., 2006), instruments (e.g., scales, measures) and school population (e.g., students, parents, teachers, schools etc). See Table 1 for the search strategy. Peer reviewed articles published from 2013 to 2023 were only included if they were used in an educational or school community setting to ensure relevancy to the target population. Articles were excluded if the study was written or administered in another language other than English, focused on a specifically unique situations (e.g., children with cancer, traumatic events, other critical life events), the study did not relate to use in the education or school community, or the study only focused on one construct of illbeing (e.g., only depression). Prior to search, the inclusion and exclusion criteria were decided on by the authors. The authors were focused on the day-to-day life of students, teachers, staff, and parents in school communities, which led to the exclusion criteria of studies that focused on unique contexts. The review also focused on self-report tools excluding additional informant reporting tools such as parent reports. Further, as illbeing has been defined as representing a “range” of mental health difficulties, it was necessary to ensure study tools also measured more than one construct. Due to the focus on English speaking countries, studies were included if they were conducted in Canada, the UK, Australia, or the United States of America, to ensure the validity of the scales were representative of target population. This was important as scales translated into another language other than English can include culture effects and impact the validity and reliability of the scale (Oei et al., 2013).

Information Sources

To identify relevant information sources, five large databases were explored: EBSCOhost, Health and Psychosocial Instruments (HaPi), Medical Literature Analysis and Retrieval System Online (Medline), PsycInfo and Cumulative Index of Nursing and Allied Health (CINAHL). The report's search strategy development including key terms and databases were done in consultation with an experienced university research librarian (FN), and further refined through team discussions. Searches were completed in August, 2023.

Search and Selection of Sources of Evidence

The final search completed for EBSCOhost can be seen in Table 1. This is reported as an example of the search strategy used. In other databases, the strategy differed slightly in format, but not in key terms. The final search results were then screened by title for inclusion website ("*Covidence*", 2014). Duplicates were removed by the system. Using Covidence, a second review was conducted which aimed to examine the studies' title and abstract for inclusion criteria. If the studies met the inclusion criteria, a full text review was completed. In total, 7 articles and 10 instruments were included in the review.

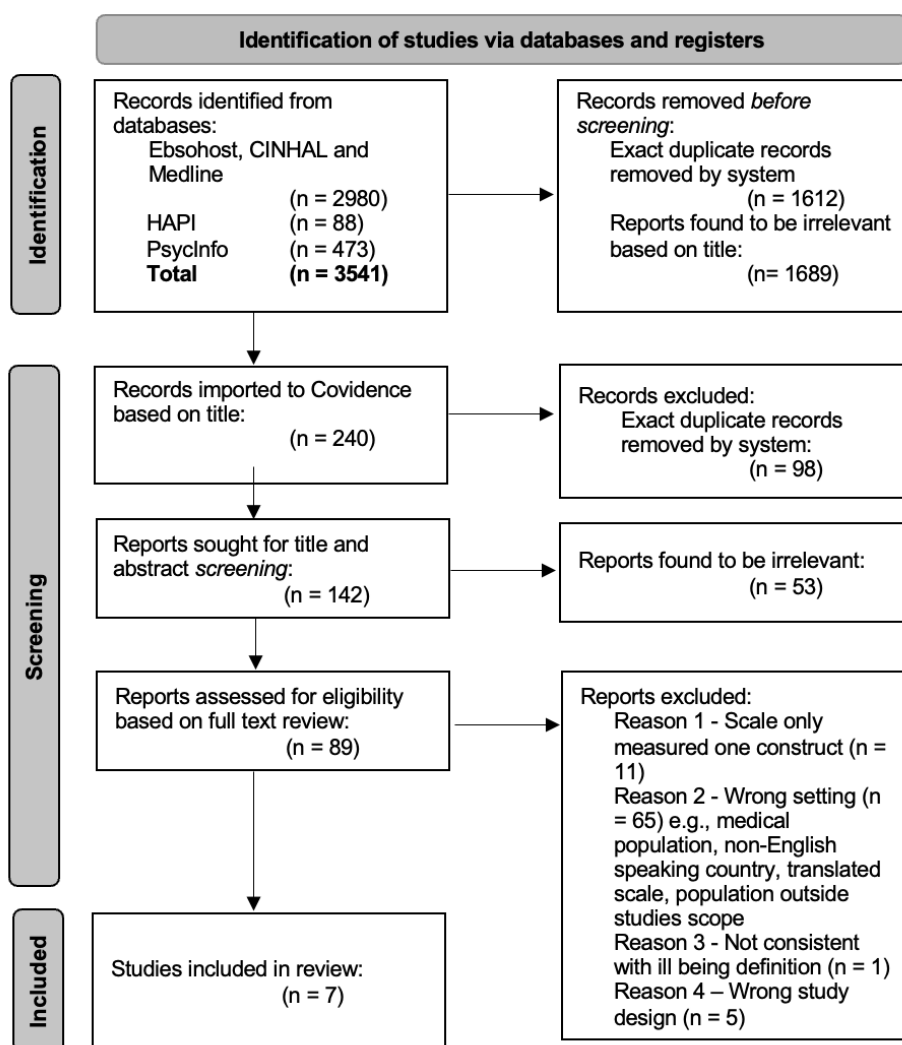
Data Charting Process

Records were added to a tracking document if studies met the inclusion criteria. The charting form was agreed prior to the search by the authors. The first reviewer independently charted the data up until the extraction process, who then did a final review of irrelevant articles to ensure all met the exclusion criteria. To improve the reliability of the selected studies (Pallant, 2020), a second assessor independently used the inclusion criteria to compare against a sample of the selected studies at each stage of the screening process, once imported into Covidence. The second reviewer examined 14 study's titles and abstracts; 8 study's full text review; and confirmed 2 study's that were extracted. The first and second reviewer were in agreement of the articles that were included and excluded. If there was

confusion, the reviewers discussed and agreed upon the inclusion/exclusion of the article together. Prior to extraction, the authors discussed the articles to ensure all met the inclusion criteria. Figure 3 outlines a flow diagram of the study selection and screening process according to PRISMA (2023).

Figure 3

PRISMA (2023) flow chart of identification, screening and included article process.



Data Extraction

Studies that met the inclusion criteria were then reviewed to extract information relevant to achieve the goals of the scoping review. Measure used, authors, number of items, Likert scale range, subscales measured, and population were extracted and formed Table 3. This table showed the identified measures and their qualities, from the scoping review.

The table was then used to create Table 4, which showcased the psychometric properties of the identified measures. The study identified, scale used, population type (sample, setting, age group measured, and geographical location), psychometric properties (reliability and validity) and the study's reported intended use for the tools was also extracted. This information was extracted to help assess the quality and appropriateness of the scales identified. To recommend a measure of 'illbeing' for universal screening across a school community, several aspects were considered (Glover & Albers, 2007; Linden et al., 2022; Pallant, 2020).

Recommendations by Glover and Albers (2007), Linden et al., (2022) and Pallant (2020) were utilised to inform the quality of the assessment tools. As shown in Table 2, the identified measures from the scoping review were evaluated against the criteria to ensure that the measure has technical adequacy (had sound psychometric properties), usability (was a good population fit and included the illbeing definition) and suitability (for use in a school environment). Given some studies did not report some of the information required for this evaluation, some additional investigation of the tool was required. Within the results section, a * will represent this additional exploration.

Table 2

Criteria keys to grading the technical adequacy, usability and suitability of tools.

Evaluation Criteria	Good (✓)	Adequate (∩)	Not adequate (✗)	
Technical Adequacy	Reliability	Internal consistency is measured by Cronbach Alpha is >.7 and another measure of reliability has been reported.	Internal consistency is measured using another statistic that is >.7 or Cronbach Alpha is between 0.5 and 0.7	Reliability scores are not reported, or Cronbach Alpha is below 0.5.
	Validity	Strong evidence of validity with exploration of criterion, construct, and content validity. Confirmatory Factor Analysis statistics were reported that shows convergent and divergent validity that indicate a goodness of fit.	Some evidence of validity with exploration of criterion, construct and/or content validity.	Little evidence of validity or just stated as 'valid result'.
	Norms	There are normative statistics available from a sample that is representative, recent, and sufficiently large.	The normative sample may be representative, but no normative statistics are available.	The normative sample nor research conducted is not in a representative sample.
Suitability	Population fit Ages 5 – 18	Tool created relevant for ages approximately 5 -18 year old in school communities.	Tool created for general use among a variety of populations including children, youth, and adolescents.	Tool intended for specific population other than children or for a clinical population.
	Teachers	Tool created relevant for teachers in school communities.	Tool created for general use among a variety of populations but have noted it's suitability for teachers.	Tool created for general use among a variety of populations but not specified for use in teachers.
	Adults (18 years +)	Tool created closely for adults in school communities.	Tool created for general use among a variety of populations including adults.	Tool intended for specific population other than adults or for a clinical population.
	Scope for illbeing	Tool's creator's definition and items align well the current study's definition of illbeing to identify an individual's risk status in school communities.	Items and definition cover most of the scope of illbeing and identifies individuals at risk.	Items and definition are narrow and does not cover the scope of illbeing or does not identify individuals at risk.
Usability	Time to administer. Ages 5- 18	15 minutes	<20 minutes	>20 minutes
	Adults	30 minutes	<40 minutes	>40 minutes
	Feasibility of Administration	Level A: any teacher	Level B: masters level training	Level C: allied health professional or others trained in psychometrics
	Cost	The tool is freely available.	There is some cost associated with the tool, but it is reasonable.	The cost is substantial for most schools or cost is unknown.

Results

The initial aim of the study was to identify currently available assessment tools that measure illbeing across the school community (students aged 5-18 and adults, parents, and teachers). Using a systematic scoping review, twelve overall scales from seven different studies were identified that met the inclusion criteria. The twelve scales originated from four separate instruments: the Revised Child Anxiety and Depression Scale (RCADS; Chorpita et al., 2000); the Depression, Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995); the Positive and Negative Affect Schedule for Children (PANAS- 10 C; Ebesutani et al., 2012) and PANAS adults (Watson et al., 1988); and The Teacher Emotions Scale (TES; Frenzel et al., 2016).

Five out of the seven articles identified used the RCADS, one out of seven reported using the DASS-21 (Donnelly et al., 2019), Szabo and Lovibond (2022) reported using the DASS- Y and PANAS-10C, and Frenzel et al., (2016) reported using the TES and the PANAS – adult. This current study found limited scales for adults in the school communities. Only one adult self-report illbeing scale measured teachers (TES; Frenzel et al., 2016), the same study used the PANAS-adult to cross-validate in teachers, not other adults within school communities. Further, Donnelly et al., (2019) used the DASS-21 in an adolescent population despite its original use for adults. Lastly, no self-report scales were identified that were specific to the general parent population. Scale details can be seen in Table 3.

The second part of the current study was to evaluate the identified assessment tools' psychometric properties to recommend the most optimal tool across the ages of 5-18 and adults in Australia. The psychometric properties and study details have been collated and compared in Table 4. This information has then been used to appraise each scale, which has been visually represented in Table 5, using the criteria outlined in Table 2.

Table 3*Identified Measures of Illbeing for a School Community and Scale Details.*

Measure	Article Author/s	Items	Likert Scale Range/s	Composite/Subscales	Population
RCADS	Donnelly et al., (2019) Radez et al., (2021) Piqueras et al., (2017) Trent et al., (2013)	47 Items	4-point likert scale - 0–3 (never – almost always)	Generalised Anxiety Disorder (GAD), separation anxiety disorder (SAD), Social Phobia (SP), Panic Disorder (PD), obsessive-compulsive disorder (OCD) and major depressive disorder (MDD). Total anxiety score and total internalising score.	6 - 18 year olds
RCADS - 38	Piqueras et al., (2017)	38 items	4 point Likert scale - 0–3 (never – almost always)	Total internalising score (38 items)	6 - 18 year olds
RCADS -30	Piqueras et al., (2017)	30 items	4 point Likert scale - 0–3 (never – almost always)	GAD, SAD, SP, PD, OCD and MDD. Total anxiety score and total internalising score.	6 - 18 year olds
RCADS - 25	Radez et al., (2021) Piqueras et al., (2017) Krause et al. (2021)	25 items	4 point Likert scale - 0–3 (never – almost always)	GAD, SAD, SP, PD, and MDD. Total anxiety score and total internalising score	6 - 18 year olds
RCADS - short version	Piqueras et al., (2017)	25 items	4 point likert scale - 0–3 (never – almost always)	Total anxiety score (15 items), total depression score (10 items), and total internalising score (25 items).	6 - 18 year olds
RCADS – 19	Piqueras et al., (2017)	19 items	4 point likert scale - 0–3 (never – almost always)	Total internalising score (19 items)	6 - 18 year olds
RCADS – brief version	Radez et al., (2021)	11 items	4 point likert scale - 0–3 (never – almost always)	Total anxiety score (6 items), total depression score (5 items), and total internalising score (11 items).	11 - 18 year olds
DASS-21	Donnelly et al., (2019)	21 items	4 point likert scale - 0–3 (never – almost always)	Anxiety scale, depression scale and stress scale	Adults, but Donnelly et al., (2019) found DASS-21 reliable in 12 - 18 year olds
DASS-Youth (DASS-Y)	Szabo and Lovibond (2022)	21 items	4-point Likert-type scale ranging from 0 = “not true” to 3 = “very true.”	Anxiety scale, depression scale and stress scale	7 - 18 year olds
PANAS-10 - Children	Szabo and Lovibond (2022)	10 items	5-point Likert-type scale (from 1 = very slightly or not at all to 5 = extremely)	Positive affect and negative affect	Children (non-specific ages)
PANAS-20 - Adults	Frenzel et al., (2016)	20 items	5-point scale (from 1 = very slightly or not at all to 5 = extremely).	Each item relates to joyful, cheerful, happy, lively, proud to form the positive affect scale and miserable, mad, afraid, scared, sad to form the negative affect scale.	Adults (18 years +)
TES	Frenzel et al., (2016)	12 items	4-point Likert Scale labelled with strongly disagree, disagree, agree, strongly agree.	Enjoyment, anger, and anxiety scales	Teachers (non-specific age)

Table 4*Measures of Illbeing for a School Community and Study Details Including Reported Reliability and Validity*

Study	Measure	Sample (N)	Setting	Internal Consistency	Other	Validity reported	Group Measured	Country	Stated Use
Donnelly et al., (2019)	Revised Child Anxiety and Depression Scale (RCADS) - 47 items	350	4 schools (one urban mixed sex, one urban single-sex and two rural mixed sex)	Cronbach's Alpha between 0.6 - 0.96	Item-total correlation $n > 0.3$	Convergent validity (established), Divergent validity for MDD and PD subscales (established)	12 - 18 years old	Ireland, United Kingdom	In English speaking European adolescents
Trent et al., (2013)	Revised Child Anxiety and Depression Scale (RCADS) - 47 items	12,802	Public schools across the state of Mississippi	Each factor had a Cronbach's Alpha between 0.76 - 0.83		Not specifically, but lots of statistical analysis discussing multigroup confirmatory factor analysis to examine construct validity.	Grades 2 - 12 (approximately 7 - 18 years old)	Mississippi, USA	In school settings consisting of Caucasian and African American Youth from Southern States in America
Radez et al., (2021)	Revised Child Anxiety and Depression Scale (RCADS) - 47 items	460	Community sample (214 students from 2 government schools - mixed sex) and Clinical sample (246 young people diagnosed with anxiety and/or depression from the Anxiety and Depression in Young People (AnDY) Research Clinic, based at the University of Reading.	McDonalds Omega Coefficient 0.97	Reported item-total correlations.	Criterion validity, convergent validity, and divergent validity	11-18 years old	Berkshire, United Kingdom	In school settings

Table 4 Continued

Piqueras et al., (2017)	RCADS - 47 items	146 studies	Meta-analysis. Included in the study were 88,648 children and adolescents (51.40% of female) with a mean age of 11.66 years (SD =1.41; range: 6–18). There was an ethnic majority of Caucasian participants (k=88), with a varied and representative socioeconomic status. Mainly, studies were conducted with general samples (k=125; n =79,747; 89.96%). Studies were conducted predominantly in the United States (k=96), followed by the Netherlands (k=41) and Spain (k=18).	Mean cronbach alpha 0.93	Reported reliability coefficients for scales from all studies.	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.
Piqueras et al., (2017)	RCADS -38	146 studies	As above.	-	-	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.
Piqueras et al., (2017)	RCADS -30	146 studies	As above.	Mean Cronbach alpha 0.87	Reported reliability coefficients for scales from all studies.	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.
Radez et al., (2021)	RCADS -25	460	Community sample (214 students from 2 government schools - mixed sex) and Clinical sample (246 young people diagnosed with anxiety and/or depression from the Anxiety and Depression in Young People (AnDY) Research Clinic, based at the University of Reading.	McDonalds Omega Coefficient 0.95	Reported item-total correlations.	Criterion validity, convergent validity, and divergent validity	11-18 years old	Berkshire, United Kingdom	In school settings

Table 4 Continued

Krause et al. (2021)	RCADS -25	107 measures	A working group of 27 experts from 13 countries appraised 107 measures. The measures were selected from a larger pool of measures collected through various means including a systematic scoping review.	Cronbach's alpha >0.7	Reported test re test reliability	Validated in clinical and non-clinical samples	6 - 18 years old	Global	Recommended for use by all those providing care to children and adolescents worldwide, regardless of intervention setting or approach.
Piqueras et al., (2017)	RCADS -25	146 studies	As above	Mean Cronbach alpha 0.86	Reported reliability coefficients for scales from all studies.	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.
Piqueras et al., (2017)	RCADS - SV	146 studies	As above	Mean Cronbach alpha 0.84	Reported reliability coefficients for scales from all studies.	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.
Piqueras et al., (2017)	RCADS - 19	146 studies	As above	Mean Cronbach alpha 0.73	Reported reliability coefficients for scales from all studies.	-	6 - 18 years old	Global	For evaluating the symptoms of anxiety and depression in children and adolescents in different cultural settings.

Table 4 Continued

Radez et al., (2021)	RCADS - Brief Version	460	As above.	McDonalds Omega Coefficient 0.70 - 94 across samples.	Reported item-total correlations.	Criterion validity, convergent validity and divergent validity	11-18 years old	Berkshire, United Kingdom	In school settings when time constraints exist.
Donnelly et al., (2019)	DASS-21	350	4 schools (one urban mixed sex, one urban single-sex and two rural mixed sex)	-	-	Stated that previous research showed validity in adolescents and Irish adolescents.	12 - 18 years	Ireland, United Kingdom	In English speaking European adolescents
Szabo and Lovibond (2022)	DASS-Y	2121	32 different primary and high, public, and private schools in Sydney and regional areas. The majority of the students lived in areas characterized by high socioeconomic circumstances, were born in Australia, and speak English as the primary language at home. 33% reported they speak another language other than English, most commonly Chinese.	Cronbach's alpha values were $\alpha = 0.89$ for Depression, $\alpha = 0.84$ for Anxiety, and $\alpha = 0.84$ for Stress. McDonald's omega values were $\omega = 0.90$ for Depression, $\omega = 0.84$ for Anxiety, and $\omega = 0.84$ for Stress.	Comparative Fit Index for total group: 0.94	Construct validity using a confirmatory factor analysis	7 - 18 years old	Australia	Use in children and adolescents for research and clinical contexts.
Szabo and Lovibond (2022)	PANAS-10 -Children	2121	As above.	Cronbach's Alpha for positive affect = 0.86; negative affect = 0.84		Stated good convergent and discriminant relationships between the two constructs.	Children	NA	NA

Table 4 Continued

Frenzel et al., (2016)	PANAS-20 - Adults	377 teachers	As above	Cronbach's Alpha = 0.71 for positive and Cronbach's Alpha = 0.74 for negative.		External validity reported against TES constructs with correlations significant and in the expected direction.	Teachers	Canada	Use in English speaking teachers for research and intervention evaluations.
Frenzel et al., (2016)	TES	377 teachers	Teachers averaged 13 years' experience and ranged in age from 21 - 68 years old. Teaching in primary, middle and high school.	Cronbach's Alpha for general scales ranged from 0.73 - 0.81; student- group specific scales ranged from 0.8 - 0.87.	Comparative Fit Index for three factor model: 0.943 - 0.976	External validity and internal validity reported	Teachers	Canada	Use in English speaking teachers for research and intervention evaluations.

Table 5

Summary of grading the technical adequacy, usability, and suitability of identified tools.

Scale		RCADS – 47	RCADS – 38	RCADS – 30	RCADS – 25	RCADS- SV	RCADS – 19	RCADS- BV	DASS - 21	DASS - Y	PANAS-10C	PANAS-20- adult	TES
Technical Adequacy	Reliability	✓	✓*	✓	✓	∅	✓*	∅	✓*	✓	✓	✓	✓
	Validity	✓	✗*	∅	✓	∅	∅*	✓	✓*	✓	✓	✓*	✓
	Norms	∅**	✗*	∅	∅**	∅	✗*	∅	✓**	✓	∅	✓*	∅
Suitability	Population fit. Ages 5 – 18	✓	✗*	✓	✓	✓	∅*	∅	∅	∅	✓*		
	Teachers								✗*			✗*	✓
	Adults (18 years +)								∅*			∅*	
	Scope for illbeing	✓	∅*	✓	✓	✓	∅*	✓	✓	✓	∅	∅*	✗
Usability	Time to administer. Ages 5- 18	∅	✓*	✓	✓	✓	✓*	✓	✓	✓	✓		
	Adults								✓			✓	✓
	Feasibility of Administration	✗**	✗*	✗	✗**	✗	✗*	✗	✓**	✓**	✗*	✗*	✗
	Cost	✓**	✗*	✗	✓**	✗	✗*	✗	✓**	✓**	✓*	✓*	✓

*Key: ✓ = good ∅ = adequate ✗ = not adequate according to the criteria set in Table 2. * = the original source had to be referenced for information ** = developer website had to be referenced for the information.*

Using Table 3 and 4, each of the identified scales will now be discussed below. With reference to Table 5, the tools will be evaluated for their use as a universal screening tool of illbeing in Australian school communities.

1. The Revised Child Anxiety and Depression Scale (RCADS)

The RCADS is a 47-item self-report questionnaire that measures anxiety and depressive disorders in children and adolescents aged 8 to 18. It was developed in 2000 by Chorpita et al., incorporating depression symptoms into the Spence Children's Anxiety Scale (Spence, 1998). The RCADS measures six different anxiety disorders (APA, 1994; generalized anxiety disorder, GAD; separation anxiety disorder, SAD; social phobia, SP; panic disorder, PD; obsessive-compulsive disorder, OCD; and major depressive disorder, MDD), as well as total anxiety and total internalizing scores. It has been well validated internationally and has been adapted reliably to shorter versions and translated versions (Krause et al., 2021; Piqueras et al., 2017).

Participants are asked to rate how often each item applies to them on a 4-point Likert scale, from 0 (never) to 3 (always). The RCADS is free to use for individuals in educational or clinical settings, but permission must be sought for large-scale uses (Child FIRST & UCLA, 2023). Normative data is only available for the 47-item and 25-item versions of the RCADS, and is based on a sample of students in grades 3 to 12 in the United States.

As shown in Table 3 and 4, this research review identified six shortened versions of the RCADS-47: RCADS – 38, 30, 25, shortened version, 19 and brief version. All examined children and adolescents in a variety of primary and secondary school settings. The RCADS was the most widely cited tool in the current study.

All versions of the RCADS were found to reliably measure internal consistency (Pallant, 2020). The RCADS – 47, 38, 30, 25, and 19 were found to have Cronbach's alpha coefficients above 0.7 – 0.96 for most subscales and/or total scales. However, the weakest

subscales were OCD subscale on RCADS-30 ($\alpha = 0.68$); MDD on RCADS-25 ($\alpha = 0.66$; Piqueras et al., 2017) and in Donnelly et al.,'s (2019) work RCADS- 47 - SAD across groups were (total $\alpha = 0.69$). Piqueras et al. (2017) found that shorter versions of the RCADS are less reliable, but recent studies by Krause et al. (2021) and Radez et al. (2021) found that the RCADS-25 ($\alpha > 0.7$) and RCADS-brief 11 (McDonalds Omega Coefficient 0.70 - 94) are still psychometrically sound measures of anxiety and depression in young people, and reduce the burden on participants.

Validity was also determined by examining the RCADS-47 across groups, and compared to similar tools such as the DASS-21 (Donnelly et al., 2019) or other versions of the RCADS (Piqueras et al., 2017; Radez et al., 2021;). Radez et al., (2021) determined that criterion, convergent and divergent validity was favourable when RCADS-brief compared to RCADS-25 and RCADS-47. In Donnelly et al., (2019), convergent validity was established between groups identifying different patterns, and a preliminary finding for divergent validity of MDD and PD as individual latent constructs. Trent et al., (2013) also examined construct validity by using a confirmatory factor analysis and confirmed the six-factor model was the best fit compared to 5, 2 or 1 factor models. Cross-cultural validation was also determined with Trent et al., (2013) validating the RCADS-47 in Caucasian and African American youth; Donnelley et al., (2019), validating the RCADS-47 in an Irish clinical and non-clinical sample; and Piqueras et al., (2017) found versions of the RCADS used across the globe. However, Piqueras et al., (2017) state that they did not evaluate validity for many of the RCADS versions (including 38, 30, 19).

To appraise all versions of the RCADS, the authors deemed the RCADS -25 as the most appropriate tools to measure illbeing in students aged 6 – 18 years old. Through the appraisal process, the RCADS -25 was appraised as 'good' in 6 out of 8 domains. This is due in part to the availability of the scale, scoring and norms, cost, population fit, time and

adherence to the illbeing construct (Child FIRST & UCLA, 2023). However, to use this as a universal screening tool in a large school population, permission is to be sought and data needs to be handled by a school psychologist or someone with similar qualifications.

2. Depression Anxiety Stress Scales (DASS)

The DASS (21 items) is a shortened version of the DASS long version (42 items; Lovibond & Lovibond, 1995). The intent of the scale is not for diagnosis, but to further explore the negative emotional states of depression, anxiety, and stress. The DASS measures current states and changes over time across a variety of settings. Participants are asked to mark on a 4-point Likert scale how much an item relates to them in the past month.

Studies have shown good reliability and validity in adults as well as in adolescents (Donnelly et al., 2019; Lovibond & Lovibond, 1995). In Donnelly et al., (2019) where the DASS-21 was identified, convergent validity was established between adolescent clinical and non-clinical groups, however, no other statistics were provided. Thus, further research was required. The developer's website (Psychology Foundation of Australia & School of Psychology University of New South Wales, 2023) and/or original papers (Anthony et al., 1998) indicate good internal consistency of the DASS 21 in clinical and non-clinical adults ($\alpha = .94$ for Depression, $\alpha = .87$ for Anxiety, and $\alpha = .91$ for Stress). When compared to other measures of anxiety and depression, the DASS-21 subscales were 'moderately' well validated (correlation coefficients ranging from 0.32-0.85; in Anthony et al., 1998 and Donnelly et al., 2019).

The DASS-Youth was also identified in the review. The DASS was developed for adults, thus Szabo and Lovibond (2022) aimed to develop a scale to accurately measure depression, anxiety, and stress in children and adolescents (7 – 18 years old). The DASS-Y was concluded to have adequate reliability with $\alpha = 0.89$ for Depression, $\alpha = 0.84$ for Anxiety, and $\alpha = 0.84$ for Stress. A confirmatory factor analysis was also conducted to

establish whether the hypothesised three factor model was of good fit (a comparative fit index, CFI, above 0.90 generally determined the model is of a good fit). Results determined the DASS-Y's CFI was 0.94. Szabo and Lovibond (2022) used a range of scales to measure the DASS-Y's concurrent validity. One included the Positive and Negative Affect Schedule for Children (PANAS-10; Ebesutani et al., 2012) which will be discussed below. All measures correlated at the expected direction. Therefore, Szabo and Lovibond (2022) identified the DASS-Y to be a reliable and valid measure of child and adolescent depression, anxiety, and stress.

Overall, the DASS-Y and DASS-21 were shown to be sound tools for this study's purpose (see Table 5). Through the appraisal process, 7 out of 8 domains for the DASS-Y were 'good', whereas the DASS-21 had 8 out of 11 domains. This is due in part to the tools being closely related to illbeing, the tool, scoring templates and severity cut-offs are freely accessible and based on the Australian population. Although the intended use of the DASS was for researchers and clinicians, the websites state that anyone can administer and score the DASS. However, scores should be interpreted by clinician or researcher. Given this, the DASS-Y is appropriate for universal screening of illbeing in school communities for students aged 7 and above. Further, although the DASS-21 has not been identified as a measure of adults in school communities, it's reliability and validity in adult populations can be generalised to adults within school communities.

3. Positive and Negative Affect Schedule - Short form (PANAS)

The PANAS-10 children and PANAS -20 adult were identified in Szabo and Lovibond (2022) and Frenzel et al., (2016), respectively. The PANAS-10 is a short form of the Positive and Negative Affect Schedule (Watson et al., 1988) and validated in children by Ebesutani et al., (2012). In children, the 10 items ask the participants to state how they have been feeling in the last few weeks on a 5-point Likert scale (from 1 = very slightly or not at

all to 5 = extremely). Each item relates to different emotions to form the positive affect scale and the negative affect scale. For adults, the short form is doubled on each scale to consider a larger range of positive and negative emotions respectively.

Both versions of the PANAS were identified as valid and reliable measures of positive and negative affect in adults and children. Szabo and Lovibond (2022) found the PANAS-10 children's internal consistency of $\alpha = 0.86$ for positive affect and $\alpha = 0.84$ for negative affect as well as having good convergent and discriminant validity when measured against the DASS-Y. Frenzel et al., (2016) measured the adult version of the PANAS-20 in teachers and found this to be reliable with $\alpha = 0.71$ for positive and $\alpha = 0.74$ for negative, and valid, with subscales of the TES and PANAS-20 showing good external validity through significant correlations.

According to the original sources of the PANAS-10C (Ebesutani et al., 2012) and PANAS-20 adult (Watson et al., 1988), the scale is available for use in their respective populations. Clinicians and researchers with psychometric expertise should administer and interpret PANAS data since there is no central website from the developer (Glover & Albers, 2007). For the PANAS -20 adult, Australian normative statistics are available from Crawford and Henry (2004) and for the PANAS-10C, Ebesutani et al., (2012) do not specify the availability of norms, but it has been completed in a representative sample. Given this, the PANAS-20 adult has been appraised as 'adequate' (5 out of 9 domains are 'good') to measure illbeing in adults within school communities and the PANAS-10C negative affect subscale has been deemed as 'adequate' (5 out of 8 domains are 'good') to measure illbeing for use in students (see Table 5).

4. *Teacher Emotions Scales (TES)*

The only tool to capture teacher responses in English speaking countries was TES (Frenzel et al., 2016). The study examined teacher enjoyment, anger, and anxiety in 377

teachers in Germany and Canada. Teachers were asked to answer 12 items (4 items per construct) on a 4 point Likert Scale. Reliability was adequate ($\alpha = 0.73 - 0.81$) and validity was also good. For instance, a confirmatory factor analysis of a three-factor structure, the study confirmed a good fit with a CFI of 0.943. To measure the external validity, Frenzel et al., (2016) used the PANAS-20 and a range of other scales. To which they found the TES constructs to be a valid tool against previously established measures. Therefore, Frenzel et al., (2016) established that the TES is a valid and reliable tool to measure a range of teacher emotions.

Despite being a psychometrically sound tool, the TES was only deemed as 'adequate' (5 out of 8 domains were deemed 'good'). This was primarily due to the scale not being able to identify risk of illbeing in teachers as there are no normative or 'severity cut-off' statistics available. Therefore, at present, the TES should only be used for research purposes.

Appraisal of tools for a school community

The appraisal of the identified tools is summarised in Table 5.

Students

Based on the criteria applied, the tools deemed most appropriate to measure illbeing in students aged 5 – 18 in an Australian school community is the DASS-Y (Szabo & Lovibond, 2022). The tool had the highest rated appraisal score (7/8) and was deemed to be reliable, valid, normed to Australian school students, is mostly suitable for all students, fits within the scope of illbeing and identifies risk, is free and can be administered by anyone. However, the tool is not appropriate for students aged 5 – 6 and interpretation for risk should be conducted by a professional versed in psychometrics such as a school psychologist.

Parents, Teachers, and Adults

From the identified studies no tools were identified to measure illbeing in parents or adults in school communities. However, after the appraisal, DASS-21 (Lovibond &

Lovibond, 1995) has been deemed as the most appropriate to measure the illbeing of adults in school communities. Although the information for the studies identified was limited, further research indicated that the DASS-21 fits the appraisal criteria similarly to the DASS-Y with 8 out of 11 domains deemed as 'good'. The only consideration is for use in school communities. Through this review, studies were not identified for use of DASS-21 in teachers, parents, or adults in school communities. Regardless, the developers indicate that the DASS-21 is valid and reliable in adults and can be used across most settings (Psychology Foundation of Australia & School of Psychology University of New South Wales, 2023).

For teachers, the only identified scale was the TES (Frenzel et al., 2016). However, this study does not endorse the use of the TES. Although the TES is a reliable and valid tool, it is still in its development phase and statistics are not yet available to allow the scale to be used to identify risk of illbeing in teachers.

Discussion

Mental illness is a major global problem (WHO, 2022; WHO-PAHO, 2022), with young people particularly affected (Anthony, 2022). Schools are an important setting for early detection (O'Connell et al., 2009), but frameworks and tools are uncommon and lack consistency (e.g., Burns & Rapee, 2022). Positive Education (e.g., Duckworth et al., 2004) has set the foundations for a more consistent and holistic framework for school communities to use. However, the field often focuses solely on wellbeing and resilience, omitting poor mental ill-health. Jarden and Downes (Jarden et al., 2023) extended this field by combining wellbeing, resilience and illbeing into a 'system thinking' approach (Kern et al., 2020). Using the 'me, we, us' structure (Jarden & Jarden, 2016), the 'wholebeing' model does not just focus on students, it incorporates parents, teachers, and staff into the health of the schooling system. It acknowledges the interrelatedness and connects the health of the individual to the health of the entire schooling system.

A standardized and systematic approach to assessing and tracking mental health in schools is essential for promoting wholebeing. This can help identify and address the interconnected factors that contribute to student wellbeing, resilience and illbeing. However, at present, there are a multitude of tools and approaches available from the authentic happiness questionnaire (Sheppard et al., 2015) to the Attitude to School Survey (Victorian State Government: Education and Training, 2022).

The purpose of this study was to identify current measures of 'illbeing' that can be used in school communities. From 2013-2023, a scoping review was completed to identify assessment tools that measure 'illbeing' or multiple negative aspects of mental health, such as anxiety, depression, and stress in students, parents, teachers, and other adults within a school community. Psychometric properties of the identified studies were extracted and appraised to provide a recommendation for 'illbeing' tools that can be used in school communities. This

will help schools use a single universal screening tool for students (ages 5 – 18), parents, teachers, and other adults. This will help identify risk of mental health difficulties, track and monitor health over time, as well as track and monitor intervention outcomes. Overall, the study aims to enable schools to better understand and support community mental health.

Summary of Studies and Tools Identified

The first aim of this study was to identify scales to measure 'illbeing' across a school community. Using a scoping review and PRISMA guidelines (2023) the study identified seven articles that measured illbeing in school communities within English speaking countries. Many of the studies identified used schools as their primary data collection point and their designs were cross-sectional in nature, except for one meta-analysis (Piqueras et al., 2017) and one systematic scoping review (Krause et al., 2021). Most studies attempted to use a variety of schools to improve validity and reduce convenience sampling issues (Donnelly et al., 2019; Frenzel et al., 2016; Piqueras et al., 2017; Radez et al., 2021; Szabo and Lovibond, 2022; Trent et al., 2013). The studies were from a range of countries that were English speaking including Canada (Frenzel et al., 2016), America (Trent et al., 2013), the United Kingdom (Radez et al., 2021), Europe (Donnelly et al., 2019) and Australia (Szabo and Lovibond, 2022). Several studies also validated their reported tool for global use (Krause et al., 2021; Piqueras et al., 2017). Many studies also reported their populations as culturally diverse (Frenzel et al., 2016; Krause et al., 2021; Piqueras et al., 2017; Szabo and Lovibond, 2022; Trent et al., 2013) and socioeconomically diverse too (Piqueras et al., 2017; Radez et al., 2021; Trent et al., 2013). Generally, this information helps the validity and generalisability of the tools.

From the seven articles included, it was possible to identify twelve overall scales that met the inclusion criteria. Of the twelve different scales identified, these were drawn from four separate tools; the RCADS (Chorpita et al., 2000); the DASS (Lovibond & Lovibond,

1995); The PANAS for Children (PANAS- 10 C; Ebesutani et al., 2012) and PANAS for Adults (Watson et al., 1988); and TES (Frenzel et al., 2016). Adult scales were limited, as only two adult illbeing scales were found, the PANAS-20 (Watson et al., 1988) and the DASS-21 (Lovibond & Lovibond, 1995). No self-report scales were identified that were specific to the parent population. Finally, the only measure found to examine illbeing in teachers was TES (Frenzel et al., 2016).

The second aim of this study was to use the psychometric properties of the identified scales to appraise and evaluate their use for specific populations with school communities. The appraisal criteria of technical adequacy, suitability, and usability in school communities was derived from Glover and Albers, (2007), Linden et al., (2022) and Pallant (2020) and shown in Table 2.

Assessment Tools for Students

This review identified three main 'illbeing' scales for use in children and adolescents (aged 5 – 18). These were the RCADS (Chorpita et al., 2000); the DASS-Y (Szabo & Lovibond, 2022) and The PANAS for Children (PANAS- 10 C; Ebesutani et al., 2012). Five out of the seven studies identified the RCADS including Donnelly et al., (2019), Krause et al. (2021), Piqueras et al., (2017), Radez et al., (2021) and Trent et al., (2013). Identified were the RCADS-47 and six shortened versions: RCADS – 38, 30, 25, shortened version, 19 and brief version. The authors reviewed all versions of the RCADS and decided that the RCADS-25 was the best tool to measure illbeing in students aged 6-18 years old. The RCADS-25 was chosen because it is freely available, has accessible norms, is appropriate for the population, and measures illbeing well. The RCADS-25 was chosen over the RCADS-47 due to brevity. However, to use the RCADS-25 as a universal screening tool in a large school population, schools must get permission from the copyright holders and the data must be handled by a

qualified professional, such as a school psychologist. Further, the norms are based on American samples so must be interpreted with caution in an Australian sample.

The DASS-Y (Szabo & Lovibond, 2022) and DASS-21 (Donnelly et al., 2019) were also identified to measure illbeing in Australian students. The DASS-Y is a free, self-report questionnaire that can be used to measure illbeing in students aged 7 to 17. The DASS-21 is also free but it only measures illbeing from aged 12 onwards. They were found to be reliable and valid tools that have been used in a variety of settings, including schools. The DASS was designed to be used by researchers and clinicians, but it can be administered and scored by anyone. However, it is important to have the results interpreted by a qualified professional well versed in psychometrics.

Lastly, the PANAS-10-C was also identified (Szabo & Lovibond, 2022). Using information from the original source (Ebesutani et al., 2012), the negative affect subscale is a 'adequate' tool (5/8 domains) to measure illbeing in students as it is valid and reliable in a representative student sample. However, there is no central website from the developer guiding its use, therefore researchers or clinicians well versed in psychometrics should administer and interpret the data.

Recommended Tool for Students. Using the appraisal process outlined in Table 2 (results shown in Table 5), out of the three 'illbeing' measures, the DASS-Y is recommended as a universal screening tool for Australian students. The DASS-Y had the highest appraisal rating with 7 out of 8 domains appraised as 'good'. Therefore, the current study has deemed the DASS-Y is the best way to measure illbeing in students aged 7-18 in Australian schools. It is reliable, valid, easy to use, identifies risk and covers the full range of illbeing. However, it is not appropriate for students aged 5-6, and the results should be interpreted by a qualified professional.

Assessment Tools for Teachers, Parents and Other Adults

Three tools were identified for adults over 18 in school communities. These tools were the DASS-21 (Lovibond & Lovibond, 1995), the PANAS – 20 Adult (Watson et al., 1988) and the TES (Frenzel et al., 2016). The research identified the DASS-21 in Donnelly et al., (2019). The appraisal process found the DASS-21 as a 'good' tool (8 out of 11 domains were 'good') to measure illbeing in adults in school communities. However, although the developers indicate the DASS-21 can be used in adults across settings, in this review the DASS-21 was not used for adults in school communities, only 12 – 18-year old's. Therefore, caution should be held, particularly when using the DASS-21 for teachers.

The PANAS – 20 Adult was identified in Frenzel et al., (2016). Using Frenzel et al., (2016) and Watson et al., (1988), the current study considered the PANAS- 20 Adult to be an 'adequate' measure (5 out of 9 domains were 'good') of illbeing for adults in a school community. It is a valid and reliable tool with Australian norms available (Crawford & Henry, 2004), it is free and has been tested in representative adult samples. However, the PANAS-20 Adult has no central system to guide it's use, therefore a qualified professional well versed in psychometrics would have to administer and interpret the data.

Lastly, the TES was identified through Frenzel et al., (2016). The TES measures anger and anxiety in teachers. The TES is a freely available, reliable, and valid scale for measuring teacher emotions in school communities. However, it is important to note that it was not designed to identify risk of illbeing therefore no normative or cut-off statistics are available.

Recommended Tool for Adults in School Communities. Overall, out of the three 'illbeing' measures the DASS-21 is recommended as a universal screening tool for Australian adults to identify risk of illbeing in school communities. Although the DASS-21 was not measured for use in adults in school communities, it received the highest appraisal rating (8

out of 11). The DASS-21 is reliable, valid, easy to use, identifies risk and covers the full range of illbeing. The study does not recommend the use of the TES in school communities as it does not identify risk of illbeing for teachers, despite it being a valid and reliable tool.

Limitations and Future Directions

There are several limitations of this study and basis for future research directions. Firstly, there remains a lack of consensus in the specific definition of 'illbeing'. Although the search strategy included broad (illbeing, mental ill health, poor mental health etc) and specific terms (anxiety, depression, stress) this may have contributed to why the search strategy failed to pick up articles outside of depression and anxiety. Future studies may want to consult with expert researchers, major test publishers, or clinicians on common search terms of illbeing to identify more studies in the specified population.

Future directions also require scale development for school parents in the general population as none were found in the current review. Further, more test development is needed to capture teacher's illbeing, as only one identified study included a scale for this purpose. However, it was not developed for use to identify risk of illbeing. Overall, more research needs to be completed to identify risk of illbeing in parents and teachers as they have unique stressors different from the general adult population and have flow on effects on children's mental health and wellbeing.

Further studies are planned to identify scales that measure the other components of wholebeing, including resilience, wellbeing, learning and health. This will help schools to employ a battery of assessments to review the mental health of their school.

Conclusion and Implications

This study identified 7 articles and appraised 12 scales that measured illbeing in school communities. The authors recommend the DASS-Y for measuring illbeing in Australian students and the DASS-21 for measuring illbeing in Australian adults in schools.

This is also helpful to compare across groups and times. No scales were found for parents, and the authors do not recommend the TES to identify risk of illbeing in teachers. The authors hope the information gained will allow schools, school leaders, school psychologists and government education bodies to create consistency in approaches and tools to measure illbeing in schools. This will support the endeavour for early detection of illbeing to target interventions that can support attempts to improve the mental health of our larger community.

References

- Allen, K. A., Vella-Brodrick, D., & Waters, L. (2016). Fostering school belonging in secondary schools using a socio-ecological framework. *The Educational and Developmental Psychologist*, 33(1), 97-121. doi 10.1017/edp.2016.5
- American Psychiatric Association. APA. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.).
- Anthony, T. (2022). *Warning signs of mental illness*. American Psychiatry Association. Retrieved October 20, 2023, from <https://www.psychiatry.org/patients-families/warning-signs-of-mental-illness#:~:text=Learn%20about%20the%20early%20warning,4%20begin%20by%20a%20ge%2024.>
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological assessment*, 10(2), 176. <https://doi.org/10.1037/1040-3590.10.2.176>
- Australian Institute for Teaching and School Leadership. AITSL. (2022). *Wellbeing in Australian schools*. Retrieved October 20, 2023, from <https://www.aitsl.edu.au/research/spotlights/wellbeing-in-australian-schools>
- Beames, J. R., Christensen, H., & Werner-Seidler, A. (2021). School teachers: The forgotten frontline workers of COVID-19. *Australasian Psychiatry*, 29(4), 420-422. <https://doi.org/10.1177/10398562211006145>
- Blanden, J., Crawford, C., Fumagalli, L., & Rabe, B. (2021). School closures and parents' mental health. ISER briefing note May, 2021. <https://www.nuffieldfoundation.org/wp-content/uploads/2021/05/School-closures-and-parents-mental-health.pdf>

- Burns, J. R., & Rapee, R. M. (2022). Barriers to universal mental health screening in schools: The perspective of school psychologists. *Journal of applied School Psychology, 38*(3), 223-240. <https://doi.org/10.1080/15377903.2021.1941470>
- Butler, J., & Kern, M. L. (2016). The PERMA-Profil: A brief multidimensional measure of flourishing. *International Journal of Wellbeing, 6*(3), 1-48. doi:10.5502/ijw.v6i3.1
- Carroll, A., Forrest, K., Sanders-O'Connor, E., Flynn, L., Bower, J. M., Fynes-Clinton, S., ... & Ziaei, M. (2022). Teacher stress and burnout in Australia: examining the role of intrapersonal and environmental factors. *Social Psychology of Education, 1-29*.
<https://doi.org/10.1007/s11218-022-09686-7>
- Child FIRST & University of California, Los Angeles. UCLA. (2023). *Revised Child Anxiety and Depression Scale (RCADS)*. Revised Child Anxiety and Depression Scale (RCADS). Retrieved October 22, 2023, from <https://rcads.ucla.edu/>
- Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour research and therapy, 38*(8), 835-855.
[https://doi.org/10.1016/S0005-7967\(99\)00130-8](https://doi.org/10.1016/S0005-7967(99)00130-8)
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and anxiety, 18*(2), 76-82.
<https://doi.org/10.1002/da.10113>
- Covidence. (2014). [Software]. In *Covidence*. <https://app.covidence.org>
- Crawford, J. R., & Henry, J. D. (2004). The positive and negative affect schedule (PANAS): construct validity, measurement properties and normative data in a large non-clinical sample. *The British Journal of Clinical Psychology / the British Psychological Society, 43*(Pt 3), 245-265. <https://doi.org/10.1348/0144665031752934>

- Donnelly, A., Fitzgerald, A., Shevlin, M., & Dooley, B. (2018). Investigating the psychometric properties of the revised child anxiety and depression scale (RCADS) in a non-clinical sample of Irish adolescents. *Journal of Mental Health, 28*(4), 345–356. <https://doi.org/10.1080/09638237.2018.1437604>
- Duckworth, A. L., Steen, T. A., & Seligman, M. E. (2005). Positive psychology in clinical practice. *Annu. Rev. Clin. Psychol., 1*, 629-651. doi: 10.1146/annurev.clinpsy.1.102803.144154
- Dunn, L. B., Iglewicz, A., & Moutier, C. (2008). A conceptual model of medical student well-being: promoting resilience and preventing burnout. *Academic Psychiatry, 32*, 44-53. <http://ap.psychiatryonline.org>
- Ebesutani, C., Regan, J., Smith, A., Reise, S., Higa-McMillan, C., and Chorpita, B. F. (2012). The 10-item positive and negative affect schedule for children, child and parent shortened versions: application of item response theory for more efficient assessment. *Journal of Psychopathology Behavioural Assessment, 34*, 191–203. doi: 10.1007/ s10862-011-9273-2
- Frenzel, A. C., Pekrun, R., Goetz, T., Daniels, L. M., Durksen, T. L., Becker-Kurz, B., & Klassen, R. M. (2016). Measuring Teachers' enjoyment, anger, and anxiety: The Teacher Emotions Scales (TES). *Contemporary Educational Psychology, 46*, 148–163. <https://doi.org/10.1016/j.cedpsych.2016.05.003>
- García-Carmona, M., Marín, M.D. & Aguayo, R. (2019). Burnout syndrome in secondary school teachers: a systematic review and meta-analysis. *Social Psychology of Education 22*, 189–208. <https://doi.org/10.1007/s11218-018-9471-9>
- Gardner W., Murphy M., Childs G., Kelleher K., Pagano M., Jellinek M., McInerny T.K., Wasserman R.C., Nutting P., Chiappetta L., & .Sturner, R. (1999). The PCS-17: a brief pediatric symptom checklist with psychosocial problem subscales. A report from

PROS and ASPN: Commentary. *AMBULATORY CHILD HEALTH*, 5, 225-236.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0->

0032713698&partnerID=40&md5=ff3c04aec149ff517705a12fda857258

Glover, T. A., & Albers, C. A. (2007). Considerations for evaluating universal screening assessments. *Journal of school psychology*, 45(2), 117-135.

doi:10.1016/j.jsp.2006.05.005

Goldberg, D., & Williams, P. (2000). General health questionnaire (GHQ). Swindon, Wiltshire, UK: nferNelson.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38, 581–586.

Holland, S. (2023). *Institutional members | PESA: Positive Education Schools Association*.

PESA: Positive Education Schools

Association. <https://www.pesa.edu.au/membership/institutional-members/>

Hou, H., Chin, T. C., Slemp, G. R., & Oades, L. G. (2021). Wellbeing literacy:

Conceptualization, measurement, and preliminary empirical findings from students, parents and school staff. *International journal of environmental research and public health*, 18(4), 1485. <https://doi.org/10.3390/ijerph18041485>

Jarden, A., Downie, A., Finter, K., & Jarden, R. (2023). Next level flourishing in education: A case study of 'wholebeing' involving integrating whole school wellbeing, illbeing, and resilience. In G. Arslan & M. Yıldırım (Eds.), *Handbook of Positive School Psychology Interventions: Evidence-Based Practice for Promoting Youth Mental Health (unpublished manuscript)*. Springer.

Jarden, A., & Jarden, R. (2016). Positive psychological assessment for the workplace. *The Wiley Blackwell Handbook of the Psychology of Positivity and Strengths-Based Approaches at Work*, 415-437. <https://doi.org/10.1002/9781118977620.ch22>

Jellinek, M. S., Murphy, J. M., Robinson, J., Feins, A., Lamb, S., & Fenton, T. (1988).

Pediatric Symptom Checklist: screening school-age children for psychosocial dysfunction. *The Journal of pediatrics*, 112(2), 201-209.

[https://doi.org/10.1016/S0022-3476\(88\)80056-8](https://doi.org/10.1016/S0022-3476(88)80056-8)

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. Retrieved from:

<https://www.jstor.org/stable/40071173>

Kern, M. L., Williams, P., Spong, C., Colla, R., Sharma, K., Downie, A., ... & Oades, L. G.

(2020). Systems informed positive psychology. *The Journal of Positive Psychology*, 15(6), 705-715. <https://doi.org/10.1080/17439760.2019.1639799>

Krause, K. R., Chung, S., Adewuya, A. O., Albano, A. M., Babins-Wagner, R., Birkinshaw, L., ... & Wolpert, M. (2021). International consensus on a standard set of outcome measures for child and youth anxiety, depression, obsessive-compulsive disorder, and post-traumatic stress disorder. *The Lancet Psychiatry*, 8(1), 76-86.

[https://doi.org/10.1016/S2215-0366\(20\)30356-4](https://doi.org/10.1016/S2215-0366(20)30356-4)

Levitt, J. M., Saka, N., Romanelli, L. H., & Hoagwood, K. (2007). Early identification of mental health problems in schools: The status of instrumentation. *Journal of School Psychology*, 45(2), 163-191. doi:10.1016/j.jsp.2006.11.005

Li, S. H., Beames, J. R., Newby, J. M., Maston, K., Christensen, H., & Werner-Seidler, A. (2022). The impact of COVID-19 on the lives and mental health of Australian adolescents. *European child & adolescent psychiatry*, 31(9), 1465-1477.

Doi: <https://doi.org/10.1101/2020.09.07.20190124>

- Linden, B., Ecclestone, A., & Stuart, H. (2022). A scoping review and evaluation of instruments used to measure resilience among post-secondary students. *SSM-Population Health*, 19, 101227. <https://doi.org/10.1016/j.ssmph.2022.101227>
- Loh, J. M., Schutte, N. S., & Thorsteinsson, E. B. (2014). Be happy: The role of resilience between characteristic affect and symptoms of depression. *Journal of Happiness Studies*, 15, 1125-1138. DOI: 10.1007/s10902-013-9467-2
- Lovibond, S.H. and Lovibond, P.F. (1995). Manual for the Depression Anxiety Stress Scales (2nd ed.). Sydney: Psychology Foundation (Available from The Psychology Foundation, Room 1005 Mathews Building, University of New South Wales, NSW 2052, Australia
- Merriam-Webster. (2023). Ill-being. *In Merriam-Webster.com dictionary*. Retrieved April 1, 2023, from <https://www.merriam-webster.com/dictionary/Ill-being>
- Michaelson, J., Mahony, S., & Schifferes, J. (2012). *Measuring well-being: A guide for practitioners*. London: New Economics Foundation
- NSW Government: Education. (2023, September 6). *About Tell Them From Me*. Retrieved from: <https://education.nsw.gov.au/student-wellbeing/tell-them-from-me/about-tell-them-from-me-/student-survey>
- O'Connell, M. E., Boat, T., & Warner, K. E. (2009). Committee on the prevention of mental disorders and substance abuse among children, youth, and young adults: Research advances and promising interventions. *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Retrieved from: http://mindpeacecincinnati.com/wp-content/uploads/Bookshelf_NBK32775.pdf
- Oei, T. P., Sawang, S., Goh, Y. W., & Mukhtar, F. (2013). Using the depression anxiety stress scale 21 (DASS-21) across cultures. *International Journal of Psychology*, 48(6), 1018-1029. DOI:10.1080/00207594.2012.755535

- Open Science Framework*. (2023). Open Science Framework. <https://osf.io/x7nsu>
- Ozamiz-Etxebarria, N., Mondragon, N. I., Bueno-Notivol, J., Pérez-Moreno, M., & Santabárbara, J. (2021). Prevalence of anxiety, depression, and stress among teachers during the covid-19 pandemic: A rapid systematic review with meta-analysis. *In Brain Sciences (Vol. 11, Issue 9)*. MDPI. <https://doi.org/10.3390/brainsci11091172>
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. McGraw-hill education (UK). Chicago
- Piqueras, J. A., Martín-Vivar, M., Sandin, B., San Luis, C., & Pineda, D. (2017). The Revised Child Anxiety and Depression Scale: A systematic review and reliability generalization meta-analysis. *Journal of affective disorders*, 218, 153-169. <https://doi.org/10.1016/j.jad.2017.04.022>
- PRISMA. (2023). <http://www.prisma-statement.org/PRISMAStatement/FlowDiagram>
- Psychology Foundation of Australia & School of Psychology University of New South Wales. (2023). *Depression Anxiety Stress Scales - DASS*. DASS. Retrieved October 22, 2023, from <https://dass.psy.unsw.edu.au/>
- Radež, J., Waite, P., Chorpita, B. F., Creswell, C., Orchard, F., Percy, R., Spence, S. H., & Reardon, T. (2021). Using the 11-item version of the RCADS to identify anxiety and depressive disorders in adolescents. *Research on Child and Adolescent Psychopathology*, 49(9), 1241–1257. <https://doi.org/10.1007/s10802-021-00817-w>
- Renshaw, T. L., Long, A. C., & Cook, C. R. (2015). Assessing teachers' positive psychological functioning at work: Development and validation of the Teacher Subjective Wellbeing Questionnaire. *School Psychology Quarterly*, 30(2), 289. <http://dx.doi.org/10.1037/spq0000112>
- Resilience*. (n.d.). American Psychological Association. Retrieved August 4, 2023, from <https://www.apa.org/topics/resilience>

- Ryff, C. D., Love, G. D., Urry, H. L., Muller, D., Rosenkranz, M. A., Friedman, E. M., ... & Singer, B. (2006). Psychological well-being and ill-being: do they have distinct or mirrored biological correlates?. *Psychotherapy and psychosomatics*, 75(2), 85-95. DOI: 10.1159/000090892
- Samji, H., Wu, J., Ladak, A., Vossen, C., Stewart, E., Dove, N., ... & Snell, G. (2022). Mental health impacts of the COVID-19 pandemic on children and youth—a systematic review. *Child and adolescent mental health*, 27(2), 173-189. doi: 10.1111/camh.12501
- Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.
- Shepherd, J., Oliver, M., & Schofield, G. (2015). Convergent validity and test–retest reliability of the authentic happiness inventory in working adults. *Social Indicators Research*, 124, 1049-1058. <https://www.jstor.org/stable/24721683>
- 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. DOI: 10.1207/S15374424JCCP3003_3
- Spence, S. H. (1998). A measure of anxiety symptoms among children. *Behaviour Research and Therapy*, 36, 545. [https://doi.org/10.1016/S0005-7967\(98\)00034-5](https://doi.org/10.1016/S0005-7967(98)00034-5)
- Szabó, M., & Lovibond, P. F. (2022). Development and Psychometric properties of the DASS-Youth (DASS-Y): an extension of the Depression Anxiety Stress scales (DASS) to adolescents and children. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.766890>
- Trent, L. R., Buchanan, E. M., Ebesutani, C., Ale, C. M., Heiden, L. J., Hight, T. L., Damon, J. D., & Young, J. (2012). A measurement invariance examination of the revised child

- anxiety and depression scale in a Southern sample. *Assessment*, 20(2), 175–187. <https://doi.org/10.1177/1073191112450907>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., ... & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of internal medicine*, 169(7), 467-473. <https://doi.org/10.7326/M18-0850>
- Victorian State Government: Education and Training, (2022). *Data Collection and Surveys: Attitudes to School Survey* | education.vic.gov.au. (May, 2023). <https://www2.education.vic.gov.au/pal/data-collection-surveys/guidance/attitudes-school-survey>
- Warwick Medical School. (2007). *The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)*. Warwick. <https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology*, 54(6), 1063. <https://scienceofbehaviorchange.org/wp-content/uploads/2019/10/PANAS.Watson.1988.pdf>
- Wellbeing in Your School: A Guide to Understanding and Implementing Positive Education and Wellbeing Science. (2022). *Positive Education Schools Association*.
- Westrupp, E. M., Bennett, C., Berkowitz, T., Youssef, G. J., Toumbourou, J. W., Tucker, R., ... & Sciberras, E. (2023). Child, parent, and family mental health and functioning in Australia during COVID-19: Comparison to pre-pandemic data. *European child & adolescent psychiatry*, 32(2), 317-330. <https://doi.org/10.1007/s00787-021-01861-z>
- World Health Organization: WHO. (2022). Mental disorders. www.who.int. <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>

World Health Organisation | Pan American Health Organization. (WHO-PAHO, 2022). *WHO highlights urgent need to transform mental health and mental health care*. Retrieved October 20, 2023, from <https://www.paho.org/en/news/17-6-2022-who-highlights-urgent-need-transform-mental-health-and-mental-health-care#:~:text=In%202019%2C%20nearly%20a%20billion,six%20years%20lived%20with%20disability>.