

Effectiveness of school-based wellbeing interventions for improving academic outcomes in children and young people: A systematic review protocol

Protocol for a systematic review

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Background and review rationale

Improving student wellbeing and building resilience are crucial in preventing and reducing the impact of mental health problems. Educating children about protective behavior and teaching them the coping skills can help them react positively to change and obstacles in life, allowing greater mental, social and academic success. There is a lack of clarity of the link between student wellbeing programs and academic outcomes and whilst a vast number of factors (and types of programs) can influence student wellbeing, no single document integrates the best evidence to show a program of continuous improvement. This systematic review will complement system-wide strategic imperatives for health and wellbeing promotion by providing robust evidence to inform policy and practice supporting student wellbeing. *VicHealth's Action Agenda Framework, 2019-2023*, is committed to five 'strategic imperatives' for improving health and wellbeing outcomes, which include – (i) promoting healthy eating, (ii) encouraging regular physical activity, (iii) preventing tobacco use, (iv) preventing harm from alcohol, and (v) improving mental wellbeing, as shown in Figure 1. The review will be structured around these five strategic areas, further focus will be given through a health equity lens.



Figure 1. VicHealth's strategic imperatives for health and wellbeing promotion

Schools are primarily seen as places where young people acquire academic skills. However, they also provide the platform where people connect with others, build their personality, and experience life, all of which can influence their subjective-wellbeing.^{1,2} Australian Education Departments operationalize student wellbeing as 'a sustainable positive mood and attitude, health, resilience and satisfaction with self, relationships and experiences at school'.

Wellbeing and academic achievement are both fundamental to positive psychological functioning and therefore these are seen as key variables of interest for evaluating the performance of an

¹ OECD PISA. Results (Volume III): Students' well-being, PISA. 2017

² Bucker S, Nuraydin S, Simonsmeier BA, Schneider M, Luhmann M. Subjective well-being and academic achievement: A meta-analysis. *Journal of Research in Personality*. 2018 Jun 1;74:83-94.

education system^{1,3}. For young people, higher wellbeing is associated with better physical health and healthy behaviours⁴. Wellbeing is negatively related to drug use such as alcohol, marijuana and smoking⁵. In an educational context, higher wellbeing is also associated with teachers reporting fewer student conduct problems⁶, and greater levels of self-control, self-esteem and intrinsic motivation⁷.

Several cross-sectional studies^{8,9,10} have suggested an association between wellbeing and academic achievement. Some researchers have reported that higher academic performance is expected to improve wellbeing and lower psychological problems¹¹, while others suggest that students' grade-point-average (GPA) positively impacts life satisfaction.¹² Moreover, a recent systematic review in the US on effective universal school-based social-emotional learning (SEL) programs in K-12 classrooms reported that SEL interventions in schools were found to have an impact on mathematics and reading.¹³ A few studies also noted that wellbeing and achievement were not significantly correlated.^{2,7,14} As such, it is possible that high academic achievement does not result in happiness and positive mental wellbeing, and likewise, performing poorly at school does not necessarily mean someone is at risk of poor mental health.² General consensus holds, however, that school-based wellbeing programs have the potential to help children and young people attain the skills they need to succeed academically.¹⁵

Accordingly, the systematic review will conduct an investigation into the effectiveness of universal wellbeing mental health promotion interventions in schools for children and young people. In order to provide empirical evidence, the focus will only involve interventions that report impact on

³ Suldo SM, Riley KN, Shaffer EJ. Academic correlates of children and adolescents' life satisfaction. *School Psychology International*. 2006 Dec;27(5):567-82.

⁴ Frisch MB. Improving mental and physical health care through quality of life therapy and assessment. In *Advances in quality of life theory and research 2000* (pp. 207-241). Springer, Dordrecht.

⁵ Zullig KJ, Valois RF, Huebner ES, Oeltmann JE, Drane JW. Relationship between perceived life satisfaction and adolescents' substance abuse. *Journal of Adolescent Health*. 2001 Oct 1;29(4):279-88.

⁶ McKnight CG, Huebner ES, Suldo S. Relationships among stressful life events, temperament, problem behavior, and global life satisfaction in adolescents. *Psychology in the Schools*. 2002 Nov;39(6):677-87.

⁷ Huebner ES. Correlates of life satisfaction in children. *School psychology quarterly*. 1991;6(2):103.

⁸ Crede J, Wirthwein L, McElvany N, Steinmayr R. Adolescents' academic achievement and life satisfaction: the role of parents' education. *Frontiers in psychology*. 2015 Feb 3;6:52.

⁹ Kirkcaldy B, Furnham A, Siefen G. The relationship between health efficacy, educational attainment, and well-being among 30 nations. *European Psychologist*. 2004 Jan;9(2):107-19.

¹⁰ Suldo SM, Shaffer EJ, Riley KN. A social-cognitive-behavioral model of academic predictors of adolescents' life satisfaction. *School Psychology Quarterly*. 2008 Mar;23(1):56.

¹¹ Suldo SM, Shaffer EJ. Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*. 2008 Mar 1;37(1).

¹² Steinmayr R, Crede J, McElvany N, Wirthwein L. Subjective well-being, test anxiety, academic achievement: Testing for reciprocal effects. *Frontiers in psychology*. 2016 Jan 8;6:1994.

¹³ Corcoran RP, Cheung AC, Kim E, Xie C. Effective universal school-based social and emotional learning programs for improving academic achievement: A systematic review and meta-analysis of 50 years of research. *Educational Research Review*. 2018 Nov 1;25:56-72.

¹⁴ Huebner ES, Alderman GL. Convergent and discriminant validation of a children's life satisfaction scale: Its relationship to self-and teacher-reported psychological problems and school functioning. *Social indicators research*. 1993 Sep 1;30(1):71-82.

¹⁵ Brooks F. The link between pupil health and wellbeing and attainment: a briefing for head teachers, governors and staff in education settings: 2014.

academic achievement (e.g. standardized test scores). While an initial search of literature on school wellbeing research has found several relevant recent reviews,^{13,16} most other reviews on this topic do not report on outcomes for academic achievement.^{17,18} While there are substantial amounts of research linking aspects of student wellbeing to cognitive and non-cognitive outcomes, there is little definitive evidence available. Moreover, a preliminary search of ERIC and Google found that the few previous systematic reviews found were narrow in scope and did not assess the broad range of school-based interventions that support wellbeing, including physical activity, healthy eating, mental health and avoiding risky-behavior. All these aspects are considered important in a holistic approach to wellbeing promotion, confirming the need for this review.

Objectives

Schools play a vital role in promoting student wellbeing – operationalized as ‘a sustainable positive mood and attitude, health, resilience and satisfaction with self, relationships and experiences at school’. While general consensus holds that school-based wellbeing programs have the potential to help children and young people attain the social-emotional skills they need to succeed academically, there is little clear evidence available. Previous systematic reviews are narrow in scope and have not assessed the broad range of school-based interventions that support wellbeing, including physical activity, healthy eating, mental health and avoiding risky behavior. All these aspects are considered important in a holistic approach to wellbeing promotion.

Review question: How effective are school-based wellbeing interventions for improving the academic and non-academic outcomes of children and young people in mainstream schools?

Methodology

The proposed systematic review will be conducted in accordance with the Joanna Briggs Institute methodology for systematic reviews of effectiveness evidence.¹⁹ The review has been registered in PROSPERO (Ref ID: 176599).

Inclusion and exclusion criteria for the review

Population: The age range for the review will be students in mainstream schools between 5 and 18 years, who receive an intervention in the mainstream school setting. This includes children with learning difficulties.

¹⁶ Maynard BR, Solis MR, Miller VL. Protocol: Mindfulness-based interventions for improving academic achievement, behavior and socio-emotional functioning of primary and secondary students: A systematic review. *The Campbell Collaboration*. 2015;13:1-47.

¹⁷ Wilson SJ, Lipsey MW. The effects of school-based social information processing interventions on aggressive behavior, Part I: Universal programs. *Campbell Systematic Reviews*. 2006;2(1):1-42.

¹⁸ Farrington DP, Ttofi MM. School-based programs to reduce bullying and victimization. *Campbell systematic reviews*. 2009;5(1):i-148.

¹⁹ Aromataris E, & Munn Z. Joanna Briggs Institute reviewer's manual. The Joanna Briggs. 2017;299.

Intervention: Any intervention, framework or program used in school, including whole-school universal or targeted approaches, for promoting student mental-health and wellbeing will be included. Examples of such programs include breakfast clubs or sports academies that, in particular, support disadvantaged students. The interventions may not be specific to health or attainment. Interventions focused on students in mainstream schools with a disability or additional learning need will be included. However, we have not included search terms solely relating to disability or disorders. Interventions that are solely family, clinical or pharmacologically based will be excluded from the review.

Comparator: The comparison groups in experimental and quasi-experimental studies typically include wait-list control groups or treatment-as-usual groups.

Outcomes: The primary outcome for the included studies is academic achievement (e.g. numeracy, literacy, GPA). All included studies should report at least one standardized achievement-related outcome. Studies that only report wellbeing outcomes and not academic outcomes, will be excluded from the review. The secondary outcomes for the included studies, if reported, are mental health and wellbeing outcomes (e.g. physical, resilience, SEL skills, learning difficulties). The tools and instruments employed to measure the academic and wellbeing outcomes will be grouped around the five 'strategic imperatives' (see Figure 1). Mental health and wellbeing should be measured using valid and reliable approaches (e.g. screening instruments, behavioral checklists) in the school or family setting.

Types of studies: This review will consider experimental, and quasi-experimental designs including randomized and non-randomized controlled trials, where a comparison group are involved. Established criteria will be used to assess the quality of the study design and resulting evidence which are appropriate to the design of the study.^{19,20}

Search strategy for identification of studies

Our search strategy is designed to identify published as well as unpublished literature via bibliographic databases, grey literature sources, selected websites, web searching, research registers and by manually searching targeted journals, reference lists and the E4L database of education studies.

Our searches will be limited to a publication date range of 2004 to 2019 (inclusive). Although a prior systematic review searched as far back as 50 years¹³, we have selected 2004 as the earliest publication date in order to narrow the scope of interventions to current approaches used in the last 16 years. Moreover, the searches will be conducted with more expansive key-words than previous reviews¹³ to encompass the five dimensions for health and wellbeing promotion (see Figure 1). Searches will not be restricted by geography, language, publication type or by publication status.

²⁰ Joanna Briggs Institute. Comprehensive systematic review study guide. Introduction to evidence-based healthcare. JBI: Adelaide. 2013.

However, in keeping with our database subscriptions, sources are English language-based and the primary language of the authors.

The following simplified PICO concepts will form the basis of the search strategy, but will also include other terms presented in Appendix I. The Intervention concept includes ‘problem’ terms (aligned to the strategic imperatives in Figure 1), with the approaches that address the problems. We found this to be the best way to develop our search strategy.

Population: Children and young people (e.g., children, student, adolescent, teenagers) AND

Intervention: Wellbeing, resilience, mental health AND program, prevention, training AND

Comparators: Trial, experimental, control group AND

Outcomes: Academic achievement, literacy, numeracy

The search strategy will be adapted to the search features of each selected database. Search terms may sometimes be limited to an equivalent term found in the database thesauri. The use of subject terms ensures a targeted search and avoids the need to consider all equivalent spellings, words and phrases. A detailed search statement for the ERIC database that draws on the Terms in Appendix I, is presented in Appendix II and provides our foundation. We will adapt this statement to produce search statements for each database, attempting to match statements as closely as possible, accommodating the varying content and features particular to each database.

Information sources

The following bibliographic databases will be electronically searched for studies that match our inclusion criteria. Consideration was given to searching PubMed. However, it was decided that our focus on outcomes related to academic achievement, not clinical health outcomes, would unnecessarily yield results that were not relevant to our review.

- A+ Education
- ERIC
- Education Research Complete
- British Education Index
- PsycInfo
- Scopus (limited to the ‘Social Sciences’ Subject Area)

The following search approaches will also be undertaken.

1. *Additional grey literature sources:*

- Selected websites relevant to topic such as research centres, professional associations and government websites
- Google scholar (limiting to pdf and if necessary gov, edu, org and up to the first 200 results)
- Directory of Open Access Repositories (OpenDOAR)
- OpenGrey (European sources)
- Systematic review repositories (e.g. Cochrane Collab., Campbell Collab., JBI, EPPI)

2. *Trial registries:*
 - Cochrane Central Register of Controlled Trials
 - International Clinical Trials Registry Platform
 - Trials Register of Promoting Health Interventions (TRoPHI)
3. *Databases for theses*
4. *Manual searching of journals:* Table of Contents for the current issues of the most relevant journals identified and reference lists for the selected studies.

Selection of studies

The results of the search will be reported in full in the final report and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) flow diagram.²¹

All identified citations will be collated and uploaded into EndNote X7 (Clarivate Analytics, PA, USA) or managed in a comprehensive Excel spreadsheet. Reviewers will independently assess titles and abstracts of a purposely varied subset of five identified studies. The purpose of this step is to determine their potential eligibility for inclusion in the review and to develop a common understanding and application of inclusion criteria. Once a consensus regarding the application has been reached, all abstracts will be assessed by at least two reviewers. Where two reviewers cannot agree on the inclusion of a study resolution will be sought through discussion or the decision of a third reviewer. Studies which do not meet the criteria and duplicates will be removed.

Full-text articles will then be retrieved for the included abstracts and the full-text screening will be undertaken by two reviewers, independently. As with all stages of the review process, any disagreements will be resolved by consensus or by the decision of a third reviewer. Any full text articles that do not meet the inclusion criteria will be excluded and reasons for exclusion will be provided in the final report. Included studies will then undergo a process of critical appraisal.

Data extraction and management

Once papers are selected for inclusion in the review, data will be extracted using the standard data extraction form from JBI-SUMARI by two independent reviewers for experimental and quasi-experimental studies. The data extracted from quantitative studies will include specific details about the interventions, populations, study methods and outcomes of significance to the review question and specific objectives.

Assessment of methodological quality: A selection of five articles will be critically appraised by all reviewers in order to ensure consistent application of criteria. Once consensus has been achieved, each article will be assessed independently by two reviewers for methodological validity using

²¹ Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred Reporting items for Systematic reviews and Meta-analyses: the PRISMA statement. PLoS medicine. 2009;6(7):e1000097.

standardized critical appraisal instruments from JBI. Specifically, the checklists for Randomized Controlled Trials and Quasi-Experimental Studies will be used. For studies that might reasonably have been expected to be included but which did not meet the inclusion criteria, the specific reasons for exclusion will be documented. The results of critical appraisal will be reported in narrative form and in a table. Following critical appraisal, studies that do not meet a certain quality threshold will be excluded.

Testing for publication bias: Assessing risk of publication bias will be an important task because of its potential influence on estimates of intervention effects. This review will analyze and ameliorate possible publication bias by implementing the trim-and-fill method.^{22,23} Finally, a funnel plot will be used to visually explore publication bias if there are 10 or more studies included in a meta-analysis. Statistical tests for funnel plot asymmetry (Egger test, Begg test, Harbord test) will be performed where appropriate.

Unit of analysis issues

Given that students are usually nested in classes and classes are usually nested in schools, the use of multi-level analysis or hierarchical linear modelling should be reported in good-quality studies, in order to take into consideration the nestedness of data. While the unit of analysis will be students, consideration will be given to the impact on the analysis of clustering in the included studies

Dealing with missing data

Where data is missing, authors will be contacted to obtain the relevant information. In some instances, it is possible to recreate missing data from available information. Where this is done, the assumptions and calculations will be detailed in the review report.

Data synthesis and effect size

Quantitative data will, where possible, be pooled by way of statistical meta-analysis using the JBI-SUMARI tool. All results (mean, sample size, standard deviation, etc) will be subject to double data entry. Effect sizes expressed as odds ratio (for categorical data) and weighted mean differences (for continuous data) and their 95% confidence intervals will be calculated for analysis through the JBI-SUMARI tool. Heterogeneity will be assessed statistically using the standard Chi-square and I^2 tests and also explored using subgroup analyses based on the different study designs included in this review. As heterogeneity is anticipated, a random-effect model will also be used.²⁴ Where statistical pooling is not possible the findings will be presented in narrative form including tables and figures to

²² Duval S, Tweedie R. A nonparametric “trim and fill” method of accounting for publication bias in meta-analysis. *J Am Stat Assoc.* 2000;95 (449):89-98.

²³ Schwarzer G. Meta: an R package for meta-analysis. *R news.* 2007;7 (3):40-5.

²⁴ Tufanaru C, Munn Z, Stephenson M, Aromataris E. Fixed or random effects meta-analysis? Common methodological issues in systematic reviews of effectiveness. *International journal of evidence-based healthcare.* 2015 Sep 1;13(3):196-207.

aid in data presentation where appropriate. Where available, secondary outcomes will also be separately extracted, synthesized and reported.

Investigation of heterogeneity

In order to understand what interventions work for whom and how, we will investigate, where available, demographic factors such as gender, age, disability and setting. This may also inform the heterogeneity between interventions.²⁵ Rather than assessing whether heterogeneity is present, we will use the I^2 statistic, reported as part of the Forest Plot available in the JBI-SUMARI software, to help assess the proportion of variability associated with between-study heterogeneity. The I^2 statistic represents the percentage variability in effect size estimates that is due to heterogeneity rather than sampling variability.²⁶ The general guide of 50% is interpreted to represent moderate heterogeneity. In addition to reporting I^2 as a relative measure of heterogeneity, the heterogeneity parameter estimate, as an absolute measure of heterogeneity, will also be reported.

Sensitivity analysis

Given the diversity of interventions and the potentially small sample of included studies within each intervention type, it will be important to conduct a sensitivity analysis of the impact of a single study or the impact of including studies of varying levels of quality on the overall observed effect size for interventions in any meta-analysis. Two main sensitivity analyses will be conducted, one excluding studies of lower quality and one focusing on excluding single studies which may have had an unduly large effect on the results. Results will then be compared to provide an indication of the robustness of the review's findings.

Reporting

The findings of the systematic review will be reported by the nature of the interventions as related to the five strategic areas of (i) promoting healthy eating, (ii) encouraging regular physical activity, (iii) preventing tobacco use, (iv) preventing harm from alcohol, and (v) improving mental wellbeing (see Figure 1). It is likely that the strategic areas of 'preventing tobacco use' and 'preventing harm from alcohol' will be combined and reported as 'reducing risky behavior' – more appropriate to the school setting. The review may also be used to inform an E4L guidance report and the findings will be tabled and presented accordingly.

Moreover, a 'Summary of Findings' will be created using GRADEPro GDT (McMaster University, ON, Canada). The Grading of Recommendations Assessment, Development and Evaluation (GRADE)²⁷ approach for grading the quality of evidence will be followed. It will present the following information where appropriate: absolute risks for treatment and control, estimates of relative risk,

²⁵ Borenstein M, Hedges L, Higgins J, Rothstein H. Introduction to Meta-Analysis. John Wiley. 2009.

²⁶ Higgins JP, Green S. Cochrane Handbook for Systematic Reviews of Interventions, Version 5.1.0. London: The Cochrane Collaboration; 2011.

²⁷ Guyatt GH, Oxman AD, Vist G, Kunz R, Brozek J, Alonso-Coello P, Montori V, Akl EA, Djulbegovic B, Falck-Ytter Y, Norris SL. GRADE guidelines: 4. Rating the quality of evidence—study limitations (risk of bias). Journal of clinical epidemiology. 2011 Apr 1;64(4):407-15.

and a ranking of the quality of the evidence based on study limitations (risk of bias), directness, heterogeneity, precision and risk of publication bias of the review results.

Personnel

A brief description of content and methodological expertise within the review team is provided. It includes personnel on the review team who have content expertise, methodological expertise, statistical expertise, and information retrieval expertise.

- Dr Katherine Dix will lead this review and provide the content expertise on school-based wellbeing interventions. She has had formal training and is an accredited JBI Comprehensive Systematic Review reviewer.
- Ms Syeda Kashfee Ahmed will be the coordinator manager for this review and has been formally trained and is an accredited JBI Comprehensive Systematic Review reviewer.
- Ms Jenny Trevitt is an experienced librarian with more than 10 years' experience as a librarian in ACER's Cunningham Library. Ms Trevitt has also been directly involved with information retrieval for previous systematic reviews.
- Dr Shani Sniedze-Gregory and Mr Toby Carslake will provide research support to the review team. They bring extensive experience in educational research methods as well as statistical analysis.

Funding

This systematic review is funded by Social Ventures Australia for work commissioned by Evidence for Learning and VicHealth. The Funder or partners did not play any role in the review process.

Conflicts of interest

The authors declare no conflict of interest.



Timeline

Date	Area of work	Steps	Deliverables
Jul 2019	Project commencement		E4L commissioning and project management of overall project
Aug-Dec	Deliverable 1: Systematic review protocol (draft)	1. Registration of title in JBI & PROSPERO 2. Preparation of protocol	Title Registration Develop the study's methodology, inclusion criteria, search strategy and guidelines using the PRISMA-P checklist
Sept-Nov	Conduct search based on protocol's inclusion criteria	3. Review of protocol 4. Study search	Search of multiple databases based on inclusion criteria
Dec	Screening of title & abstract for inclusion	5. Assessment of study relevance, screening, critical appraisal, to identify final set of included studies	Full-text screening and ongoing search of grey literature based on inclusion criteria
Jan-Apr 2020	Critical appraisal		Summary review of search results and quality of evidence (PRISMA results)
Apr	Stakeholder meeting		Discuss scoping analysis and quality of evidence
Apr-May	Data extraction and Meta-analysis		6. Extraction of data 7. Synthesis of data 8. Preparation of draft report 9. Review of draft report
May	Stakeholder meeting		Share and discuss draft report findings
Jun	Deliverable 2: Systematic review report	10. Revision of draft report 11. Dissemination and publication of report	Full report of systematic review: 1x50 pager with executive summary in E4L template

Appendix I: Detailed list of search terms identified

POPULATION	INTERVENTIONS		COMPARATORS Measure of effectiveness	OUTCOMES OF INTEREST
	Intervention Problems	Intervention Approaches		
School-age 5-18 years Student Children Teen Adolescence Youth Young people	Healthy eating Obesity Eating disorders Alcohol/Drinking Smoking Substance use Addiction Physical activity Sleep Fatigue Illness	Sport; Exercise; Yoga Gardening; Nature Nurture; Coping Outdoor education Health Education Music; Art; Drama Wellbeing Social and emotional learning (SEL) skills Emotional Development Social Development Mindfulness Positive psychology Positive youth development Anti-bullying Respectful relationships Anger management Stress management Emotional intelligence Cyber/internet safety School Schedules Support (groups/services) Self-regulation Whole-school; universal Health Promotion Framework; Curriculum Prevention Intervention; Initiative Program; Programme Package; Training	Impact Evaluation Control Group Randomized controlled trial (RCT) Experimental Quasi-experimental	Primary outcome Outcome Academic achievement <ul style="list-style-type: none"> o literacy o numeracy o grades Academic Outcomes Academic Performance Academic Success Academic Persistence Educational Attainment Outcomes of Education Attendance
Schools or education levels School Education <ul style="list-style-type: none"> o Elementary o Primary o Secondary o Middle o High o Combined 	Mental wellbeing Mental health <ul style="list-style-type: none"> o Self-harm o Suicide o Depression Attitudes <ul style="list-style-type: none"> o Negativity o Self esteem o Life satisfaction Emotional <ul style="list-style-type: none"> o Resilience o Anxiety o Stress (workload) o Abuse o Emotional problems o Self-concept o Self-control o Self-regulation Social <ul style="list-style-type: none"> o Bullying o Social media o Peer pressure o Violence o Aggression o Anti-social behavior 	Disability	Secondary outcomes (if reported in selected study) Non-academic <ul style="list-style-type: none"> o Cognitive o Social o Emotional o Behavioral 	Keywords that might exclude a study pharmacological clinical medical Solely home or clinic based treatments
Keywords that might exclude a study Special school				

Appendix II: Search statement for the ERIC database

- This statement will guide the search statements for the other databases to be searched.
- Publications will limited from 2004 – 2019 (inclusive)

(SU ("Elementary School*" OR "Middle School*" OR "Secondary School*" OR "High School*" OR "Elementary Education" OR "Primary Education" OR "Secondary Education" OR Children OR Adolescents OR Preadolescents OR Youth) OR Teen* OR "Young people")

AND

((SU (Obesity OR "Eating Disorders" OR Drinking OR Sleep OR Fatigue OR Depression OR Smoking OR Abuse OR "Student Welfare" OR "Mental health" OR "Emotional Problems" OR "Emotional Disturbances" OR "Negative Attitudes" OR "Self Esteem" OR "Life Satisfaction" OR Resilience OR "Emotional Response" OR "Self Control" OR "Self Concept" OR Anxiety OR "Self Destructive Behavior" OR Suicide OR Bullying OR Victims OR "Social Media" OR "Peer Influence" OR Violence OR Aggression OR "Antisocial Behavior" OR "Drug Addiction" OR "Addictive Behavior" OR Attention) OR "Well Being" OR Wellbeing or Illness* OR "Self Harm" OR Stress)

AND

(SU ("Health Education" OR Prevention OR Dance OR Exercise OR Gardening OR Nature OR "Outdoor Education" OR Coping OR Music OR Art OR Drama OR "Emotional Development" OR "Social Development" OR "Positive Behavior" OR "School Schedules" OR Support* OR "Self Management" OR "Stress Management" OR (Internet AND Safety)) OR (Intervention* OR Program* OR Package* OR Training OR Curriculum OR Initiative* OR (Health N2 Promot*) OR Framework* OR "Physical Activit*" OR Sport* OR Yoga OR "Outdoor classroom*" OR "Outdoor Environment" OR "Natural Environment" OR Nurture OR "Social and Emotional Learning" OR "Social and Emotional Skill*" OR "Whole School" OR Universal OR Mindfulness OR "Positive Psychology" OR "Positive Education" OR "Positive Youth Development" OR "Anti Bullying" OR "Respectful Relationships" OR "Anger Management" OR "Emotional Intelligence" OR "Cyber Safety" OR "Self Regulation")))

AND

(Impact* OR "Control* Group*" OR Experimental OR "Quasi experiment*" OR Quasiexperimental OR Evaluation OR "Randomized Control*" OR "Randomised Control*" OR "Control* Trial*" OR RCT*)

AND

("Academic Achievement*" OR (Academic N2 Outcome*) OR "Academic Perform*" OR "Academic Success*" OR SU ("Academic Persistence" OR "Grades Scholastic" OR Literacy OR Numeracy OR "Grade Point Average" OR "Educational Attainment" OR Attendance OR "Outcomes of Education")