

# What are the main factors that are thought to impact upon the implementation of a whole school approach to student mental health and wellbeing in schools? A systematic review

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**Abstract:** Increased availability of evidence-informed, school-based, prevention and intervention programmes in the area of mental health and wellbeing promotion has contributed to a shift in research priorities from efficacy to implementation and dissemination. A central issue for school psychology research in moving research to practice is to ensure high quality implementation of both the intervention programmes and the support system that sustains it. The purpose of this review is to identify, appraise and synthesise research evidence using an implementation science framework in order to identify key contextual and ecological factors (facilitators and barriers) that impact upon the implementation process of whole school approaches to mental health and wellbeing promotion. Nine studies that met inclusion criteria were synthesised and critically appraised. A total of eighty-seven facilitators and sixty-seven barriers were extracted across the nine studies. Limitations of findings and methodologies relative to the review questions are outlined and discussed.

**Keywords:** mental health; mental health and wellbeing promotion; facilitators and barriers to implementation; whole school mental health; whole school mental health and wellbeing promotion; implementation science in schools measurement

## 1. Introduction

### 1.1 *The mental health and wellbeing of young people: The international and national context*

There has been a notable growth in awareness and discussion about young people's mental health at an international level over the last decade (Collishaw, 2015; Patel et al., 2018). The worldwide prevalence of mental health problems in children and young people is now estimated to be 13.4 percent (Polanczyk et al., 2016). According to the World Health Organisation (WHO, 2014), approximately 50 percent of mental health disorders occur before the age of 14 and many more remain underdiagnosed and undertreated (WHO, 2014). International research has documented that mental health issues are currently the leading cause of disability among young people, drastically affecting their ability to lead productive lives (Gore et al., 2011).

In Ireland, a number of recent epidemiological studies have examined the mental health of young people in Ireland each documenting considerable and declining mental ill-health among this cohort (Cannon, Coughlan, Clarke, Harley & Kelleher, 2013; Dooley & Fitzgerald, 2012; Dooley, O'Connor, Fitzgerald & O'Reilly, 2019). This trend is in accordance with recent data from the National Self-Harm Registry of Ireland which reported that there was an increase in self-harm

among young people following a 22 percent increase in rates from 2007 to 2016 (Griffin et al., 2018).

### *1.2 COVID-19*

COVID-19, a 'public health emergency of international concern' (WHO, 2020) hit when it had already been documented that the mental health and wellbeing of young people was deteriorating (Polanczyk et al., 2016). While the impact of COVID-19 on young people is not fully understood, recent Irish research has highlighted that children and young people have experienced adverse mental health effects during the pandemic. These include reported feelings of social isolation, depression, anxiety, and increases in maladaptive behaviour (O'Sullivan et al., 2021). It is therefore essential that the global impact on children and young people's mental health and wellbeing is addressed.

### *1.3 Promoting children and young people's mental health and wellbeing*

It has been suggested that a comprehensive and co-ordinated response to mental health requires partnerships with multiple public sectors including health, education, employment, social along with private sectors as appropriate (WHO, 2014). In Ireland, the government have pledged to enhance mental health policy and service development strategies in order to reduce the incidence, impact and continuity of mental ill-health among the nations young people. One of the ways they aim to do this is by prioritising mental health promotion in schools.

### *1.4 Mental health promotion in schools*

Schools are well recognised as critical contexts for the promotion of mental health and wellbeing. Schools and educational settings offer the potential to reach a large number of children at an early age, at a time when they are developing important attitudes and behaviours that may influence their future health. Research in this area has established that well-implemented mental health and wellbeing interventions in schools have positively impacted upon individual children, their families, and the whole school community as a result of positive impacts on social, emotional, behavioural, economic and educational outcomes (Adi et al., 2007; Barry, Clarke, Jenkins, & Patel, 2013; Schulte-Koerne, 2016; Shucksmith et al., 2007; Weare & Nind, 2011; Weare, 2015; Wells, Barlow, & Stewart-Brown, 2003). As a result of the many review studies, we now can identify programmes that have a strong empirical basis and have demonstrated positive outcomes (Cooper & Jacobs, 2011; Durlak et al., 2011; Gresham, 2015; Sklad et al., 2012).

### *1.5 Whole school approach*

The National Institute for Health and Care Excellence (NICE) recommends schools adopt a comprehensive 'whole-school' approach to the promotion of emotional health and wellbeing (NICE, 2008, 2009). Although less researched than classroom-based approaches to mental health and wellbeing promotion, research indicates that this multi-component, preventative, whole school approach, with interventions at both universal and targeted levels, is the most beneficial approach for schools in terms of improving mental health, social, emotional and educational outcomes (Durlak et al, 2011; Meyers et al., 2015; St. Leger et al., 2010; Wells et al., 2003; Weare & Nind, 2011; Weare 2015; Weare & Grey, 2003; Young & Currie, 2009). A whole school approach moves beyond a focus on the pedagogical (teaching and learning) level to involve all members of the school community. School community members engage in a collective and committed

process of organisational and systemic change to improve specific areas of school life that impact on wellbeing (Barry, Clarke, & Dowling, 2017; Weare, 2015).

### *1.6 Evidence-based practices, implementation and implementation science*

Evidence-based policy and practice is a prevailing theme in contemporary education. The ability to adopt, implement and sustain evidence-based policy and practice is becoming increasingly important for education providers (Aarons, Hurlburt, & Horwitz, 2011). Nevertheless, the practical realities and challenges involved in using evidence in policy-making, decision making and practice are both dynamic and complex. Outcomes are crucially dependent on the context and the active input of the individuals who develop the policy as well as the practitioners who implement the policy (Pawson, Greenhalgh, Harvey, & Walshe, 2005).

Most reviews of evidence-based practice in educational settings tend to concentrate on evaluating and reporting on programme effectiveness. Focusing on programme efficacy has resulted in the identification of many evidence-based practices and programmes. Significantly less is known about what contextual circumstances and conditions influence uptake, implementation and sustainability (Owens et al., 2014; Pawson et al., 2005). Reviews examining the use of promotion and prevention programmes targeting young people found a lack of research which specifically focuses on the mechanisms for effective implementation and sustainment under typical school conditions (Durlak & DuPre, 2008; Novins, Green, Legha, & Aarons, 2013; Rowling & Samdal, 2011; Owens et al., 2014). It is therefore not surprising that the intervention and prevention research has consistently highlighted that few evidence-based interventions are successfully implemented into practice and sustained over time. This is because the infrastructure and capacity to support a systems-wide implementation of evidence-based practices is often missing (Spath et al., 2013). It is clear therefore, that the need to understand the mechanisms that drive effective implementation and sustainment under typical school conditions is essential.

The expanding field of implementation science (IS) with its theoretical roots in systems theory, social learning theory and behaviourism focuses on how to create this understanding (Khalil, 2016). IS has been defined as the scientific study of methods to promote and support the systemic uptake of research findings and evidence-based practices into public policy and professional practice (Eccles & Mittman, 2006). The American Psychological Association (APA) division 16 working group on translating science to practice has described the goals of IS as understanding the barriers to, and facilitators of implementation, with the purpose of developing new approaches to improving implementation (Forman et al., 2013). IS research that has specifically looked at prevention and implementation programs in school contexts strongly claims that high quality intervention research cannot be conducted without consideration of the school as a 'real-world' practice setting and the multiple and complex ecological factors that affect implementation (Durlak & DuPre, 2008; Forman et al., 2013; Owens et al., 2014; Pearson et al., 2015).

In their paper, the APA division 16 working group they describe some of the critical knowledge gaps in the school psychology implementation research and present four critical issues for IS in school psychology: barriers to implementation, improving intervention fidelity and identifying core intervention components, implementation with diverse client populations and implementation in diverse settings. They conclude that a national research agenda on IS in school settings is urgently needed to identify the specific implementation strategies and components that are essential for effective implementation and improved student outcomes (Forman et al., 2013). Similarly, while acknowledging the many accomplishments of well-

established Evidence-Based Practices (EBPs) in the field of special education and school and child psychology, Owens et al. (2014) note that less is known about the actual implementation of EBPs under typical school conditions. They conclude that the prioritisation of IS research in schools is needed if we are to provide and sustain high quality school-based services to children who struggle with social, emotional and behavioural challenges (Owens et al., 2014).

### *1.7 Implementation of health promotion programmes at a whole school level*

Despite the increased availability and promotion of guidelines and interventions to support health and wellbeing promotion at a whole school level alongside implementation frameworks exploring whole school approaches, the majority of effectiveness research has focused primarily on the implementation of classroom-based programmes. These programmes and interventions aim to change student level behaviours through relatively short curriculum-based interventions taught in isolation (Durlak & Dupre, 2008; Forman et al., 2009). The specific implementation practices which are undertaken to ensure the widespread adoption and successful implementation of such an approach at an organisational level have been neglected in much of the research (McIssac et al., 2017; Rowling & Samdal, 2011). While concepts of a whole school approach suggest promising results in terms of meeting the educational and health needs of school aged children, the research has been limited in terms of demonstrating their effectiveness due to the inherent complexity from a practice view of a systems approach (Deschesnes, Martin, & Hill, 2003; Moynihan, Jourdan, & Mannix McNamara, 2016).

Schools are dynamic, complex, multi-level systems with numerous factors that can influence implementation. Understanding of the processes of implementation of whole school approaches to health and wellbeing promotion which involve complex dynamics of group behaviours and system changes, collaboration with internal and external stakeholders, in addition to curricula and pedagogy is crucial (Gugglberger & Inchley, 2014; Pearson et al., 2015). Developing capacity in schools for the implementation of whole school approaches to mental health and wellbeing promotion is fundamental to prompting and sustaining action for positive mental health among young people.

## **2. Literature Review**

### *2.1 Rationale for the literature review*

Increased availability of evidence-informed, school-based, prevention and intervention programmes in the area of mental health and wellbeing promotion, in addition to growing national policies in the use of evidence based practices in schools has contributed to a shift in research priorities from efficacy to implementation and dissemination. A central issue for school psychology research in moving research to practice is to ensure high quality implementation of both the intervention programmes and the support system that sustains it. The purpose of this review is to identify, appraise and synthesise research evidence using an implementation science framework in order to identify key contextual and ecological factors that impact upon the implementation process of whole school approaches to mental health and wellbeing promotion in the school context.

### *2.2 Search strategy/literature search*

An electronic database search of PsychInfo, Scopus, Medline, CINALH (Cumulative Index to Nursing and Allied Health Literature), and ERIC was conducted through EBSCO host in May 2020. To ensure a holistic search, the search was not limited to a specific time period. Keyword

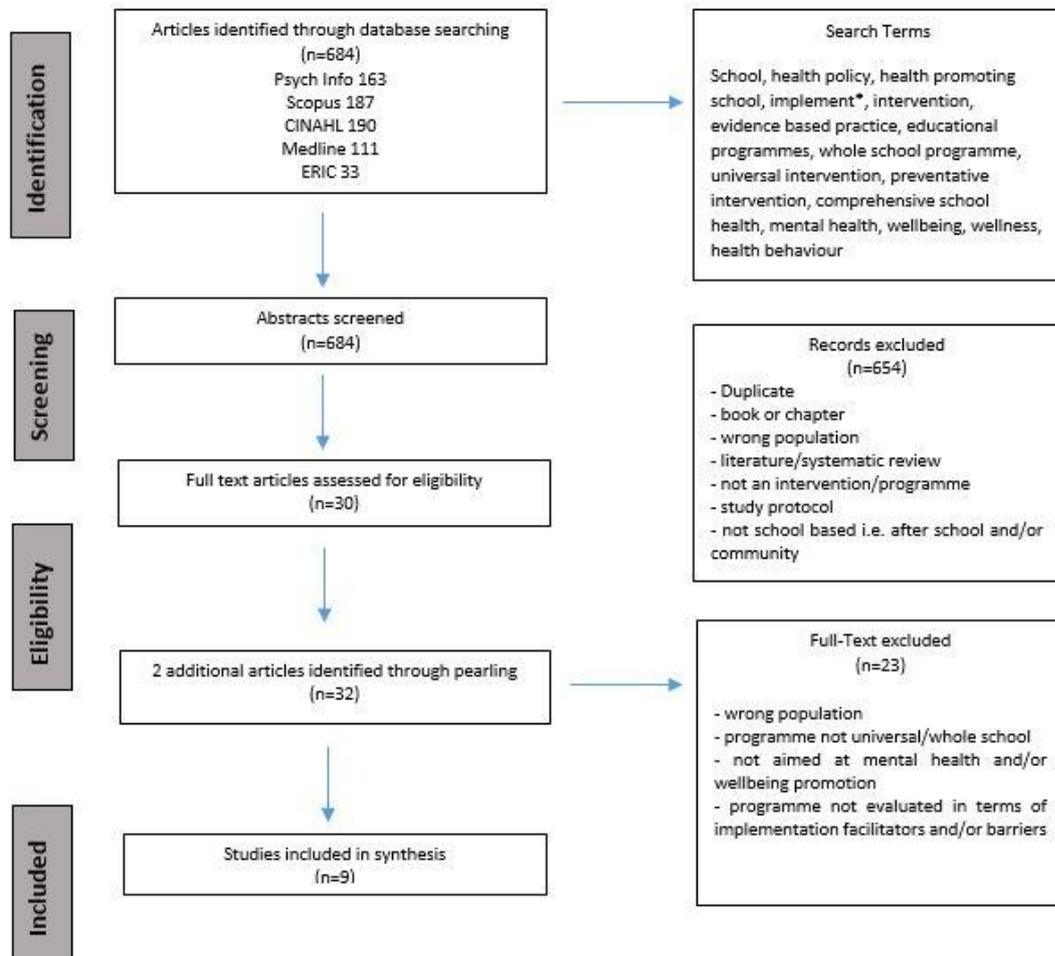
searches pertaining to the review question (Table 1) followed. A total search yield of 684 titles was generated. Titles and abstracts of identified articles were subsequently screened for relevance to topic and this resulted in the identification of 30 full text articles. Articles were then checked for eligibility according to the inclusion criteria outlined in Table 2. The references sections of identified articles were also screened for relevance and additional papers were identified. Overall, nine studies met the inclusion criteria. Fig. 1 outlines a flowchart diagram of literature screening process. Key information regarding study design, study methods, study aims/objectives, participants, setting, data analysis and main findings (facilitators and barriers) was extracted from all nine articles.

**Table 1. Database search items review question**

Databases	Search Terms
PsychINFO, Scopus, Medline, CINALH (Cumulative Index to Nursing and Allied Health Literature), and ERIC	'school' AND ('health policy' OR 'health promot*') AND 'implement*' AND ('intervention' OR 'evidence based practice' OR 'educational programme') AND ('whole school programme' OR 'universal intervention' OR 'preventative intervention' OR 'comprehensive school health') AND ('mental health' OR 'wellbeing' OR 'wellness' OR 'health behaviour')

**Table 2. List of inclusion criteria**

Criteria	Inclusion Criteria
Publication Type	Published in a peer-reviewed journal.
Participants	Participants (i.e. school staff and parents/ members) who are directly involved in implementing a whole school mental health and/or wellbeing promotion programme within a school setting.
Programme	An evidence based mental health/emotional wellbeing promotion programme delivered universally at a whole school level in schools.
Data gathered	The study must include primary quantitative and/or qualitative data that specifically explores implementation activity highlighting facilitators and barriers to implementation (key implementers views and experiences i.e. case study, interviews, questionnaires, observations).

**Figure 1. Flowchart delineating the literature search and screening process**


### 3. Systematic review of the literature

#### 3.1 Critical analysis framework

Each of the studies included for review were critically appraised using Gough’s (2007) Weight of Evidence (WoE) Framework. There are four categories within the framework.

A measures the study’s general quality of design and methodology. The Letts et al., (2007) critical review form was employed to assess various markers of rigor in qualitative research. This form provides a framework for assessing the quality of the study’s purpose, literature review, study design, sampling, data collection, data analysis, conclusions, and implications. An adapted version of the Hyett, Kenny, and Dickson-Swift (2014) quality checklist was used to appraise case study designs. The Mixed Methods Appraisal Tool (MMAT) version 2018 (Hong et al., 2018) was used to appraise mixed methods studies. Though study limitations were noted, no studies were omitted for reasons of perceived quality, given the wide variation among qualitative researchers regarding quality criteria and what makes “good” qualitative research (Sandelowski et al., 1997). WoE B measures whether the design of the study was relevant to addressing the specified review questions. The criteria for WoE B weightings were devised in accordance with the quality criteria used for WoE A and inclusion and exclusion criteria. WoE C measures the extent to which the study and its findings are relevant to answering the review question. The WoE C criteria was designed, with reference to stipulated inclusion and exclusion criteria. WoE D is a general overall

weighting of the study, calculated by averaging the scores for WoE A, WoE B and WoE C (Gough, 2007). Studies were allocated a 'High', 'Medium' or 'Low' rating according to checklists and WoE criteria. Table 3 provides an overview of the WoE ratings for each of the studies reviewed.

**Table 3. Weight of evidence awarded to each of the included studies**

Studies	WoE A	WoE B	WoE C	WoE D
Anwar-McHenry et al., (2016)	2 (Medium)	2 (Medium)	3 (High)	2.3 (Medium)
Bennett, Cunningham, & Johnston Molloy, (2016)	3 (High)	2 (Medium)	3 (High)	2.6 (High)
Cane & Oland, (2015)	3 (High)	2 (Medium)	3 (High)	2.6 (High)
Darlington, Violon, & Jourdan, (2018)	2 (Medium)	2 (Medium)	2 (Medium)	2 (Medium)
Elfrink, Goldberg, Schreurs, Bohlmeijer, & Clarke, (2017)	3 (High)	2 (Medium)	2 (Medium)	2.3 (Medium)
Lendrum, Humphrey, & Wigelsworth, (2013)	3 (High)	3 (High)	3 (High)	3 (High)
McIsaac, Mumtaz, Veugelers, & Kirk, (2015)	3 (High)	2 (Medium)	2 (Medium)	2.3 (Medium)
McIsaac, Read, Veugelers, & Kirk, (2017)	3 (High)	3 (High)	3 (High)	3 (High)
Viig, Fosse, Samdal, & Wold, (2012)	3 (High)	2 (Medium)	3 (High)	2.6 (High)

### 3.2 Participants and health promotion programme

#### 3.2.1 Participant demographics

According to stipulated inclusion and exclusion criteria, participants must be key implementers in the implementation of a whole school mental health and/or wellbeing promoting programme. Participants (i.e. key implementers) included: school principals/head teachers, vice principals/deputy head teachers, form tutors/year heads, parents, teaching assistants, members of district management teams, school psychologist, teachers with responsibility for the coordination of inclusion and special educational needs, school nurse, student services staff, pupils welfare manager, inclusion manager, principal care co-ordinator, and other non-specified non-teaching staff. A total number of participants was not possible to compute as Darlington et al. (2018) did not report the exact number of participants interviewed. Studies were undertaken in schools in Ireland (Bennett et al., 2016), Australia (Anwar-McHenry et al., 2016), France (Darlington et al., 2018) Norway (Viig et al., 2012), the Netherlands (Elfrink et al., 2017) Canada (McIssac et al., 2015; McIssac et al., 2017) and the United Kingdom (Cane & Oland, 2015; Lendrum et al., 2013).

Five studies invited all schools implementing the research specific programme in the country (Darlington et al., 2018; Lendrum et al., 2013; Viig et al., 2012) or provincial jurisdiction (McIssac et al., 2015; McIssac et al., 2017) to participate in the research before purposeful sampling took place. Sampling in eight of the nine studies detailed setting characteristics highlighting a

combination of urban and rural settings. Three of the nine studies considered socio-economic indexes when sampling (Anwar-McHenry et al., 2016; Bennett et al., 2016; Darlington et al., 2018). Cane & Oland (2015) purposively sampled a selection of schools from a wide geographical range across one local authority based on demographic information such as age range and school category. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources as well as selecting individuals that are especially knowledgeable about or experienced with the phenomenon of interest (Creswell & Plano Clarke, 2011; Patton, 2002). In this case it involved identifying individuals or groups of individuals that are especially knowledgeable about and experienced with the implementation of mental health and wellbeing promotion programs in their school. In addition to knowledge and experience of participants which can be found through purposive sampling, Bernard (2002) notes the importance of availability and willingness to participate and the ability to communicate experiences and opinions in an expressive and reflective manner. The subjectivity of purposive sampling does however, have implications for the representativeness and generalisability of study findings and can be highly prone to researcher bias.

### 3.2.2 Health promotion programme

Five of the included studies explored various aspects of the implementation of health promotion programmes developed as part of the process of becoming a *Health Promoting School* (HPS) (WHO, 1997) (Anwar-McHenry et al., 2016; Bennett et al. 2016; Viig et al., 2012; McIssac et al., 2015; McIssac et al., 2017). Under the WHO's HPS framework, schools are provided with a holistic, settings-based framework to assist them strengthening capacity to improve and protect the health of the whole school community (WHO, 1997). Cane & Oland (2015) explored implementation aspects of *Targeted Mental Health in Schools* (TaMHS), a government-supported initiative developed in response to rising health and social care costs in the UK and develop positive mental health in schools (DCSF, 2008). Lendrum et al. (2013) explored implementation aspects of *Social and Emotional Aspects of Learning* (SEAL), a whole-school approach designed to improve learning and attainment, positive behaviour, regular attendance, staff effectiveness and the emotional health and wellbeing of all staff and pupils (DES, 2007). One study explored the implementation of *Positive Education Programme* (PEP), a whole school approach to positive education for primary schools in the Netherlands which was developed by the University of Twente in response to a request from a foundation working with 33 schools in the region to develop a whole school framework aimed at supporting children's wellbeing and happiness (Elfrink et al., 2017). Darlington et al. (2018) explored the implementation processes of the *Education, Health and Territory* (EST) programme, a school-based health promotion programme which aims to address health issues in school settings, provide school staff with the means to develop school health policy and promote children's social, emotional and physical health.

## 3.3 Design and methodologies

### 3.3.1 Aims

The aims and objectives of the nine studies varied. Seven of the studies were qualitative in nature and two studies used a combination of qualitative and quantitative methods (Darlington et al., 2018; Elfrink et al., 2017). The majority of studies evaluated implementation and one study evaluated implementation in addition to programme impact on wellbeing (Elfrink et al., 2017). Three of the studies were part of bigger research projects that examined impact of health

promoting school practices on student outcomes (Cane & Oland, 2015; Lendrum et al., 2013; McIssac et al., 2015). Seven studies received a 'High' WoE A rating and two were allocated a 'Medium' WoE A rating for quality of design. Two studies received a 'High' WoE B rating and seven received a 'Medium' rating for relevance of the design to answering the review question. A summary of aims, design, measures and analysis applied are outlined in Appendix 2.

### 3.3.2 Measures and analysis

Among qualitative studies, data was collected via focus groups, semi-structured interviews, observations and document review. In mixed methods studies, data was collected via questionnaires and interviews. The methods used to collect data are summarised in Appendix 2. Three of the nine studies were case studies and used a combination of interview methods, observations and document review to explore the implementation of health promotion programmes in the school (Lendrum et al., 2013; McIssac et al., 2015; McIssac et al., 2015). Four of the studies used interview methods to explore the views of participants (Bennett et al., 2016; Cane & Oland, 2015; Darlington et al., 2018; Viig et al., 2012). Two were process evaluations that used interviews in conjunction with activity reports (Anwar-McHenry et al., 2016), workshops and standardised questionnaires (Elfrink et al., 2017). All the qualitative components of the studies were based on the use of data that were collected using in-depth interviews that were audio-taped and fully transcribed prior to data analysis.

### 3.4 Theoretical approach

While no article reported operational definitions of barriers or facilitators, seven studies based their analysis on a theoretical approach. The theoretical orientation of the nine studies varied. Studies involved the use of grounded theory (McIssac et al., 2015), socio-cultural activity theory (Cane & Oland, 2015) ecological systems theory (Lendrum et al., 2012), constructivism (McIssac et al., 2017) and realist evaluation (Darlington et al., 2018) to structure data collection and analysis. Elfrink et al. (2017) used Nielsen and Randall's (2013) evidence-based model for process evaluations as a framework for data collection and analysis. The theoretical approach used by Vigg et al., (2012) was based on theoretical concepts from appropriate literature reviews, in particular Hargreaves five factors model (Hargreaves et al., 2001). Two did not identify the use of any theoretical perspective (Anwar-McHenry et al., 2016; Bennett et al., 2016).

### 3.5 Synthesis of literature

#### 3.5.1 Data extraction

Barriers and facilitators that are thought to influence the implementation of a whole school approach to student wellbeing and mental health within a school environment as reported by key implementers (principals/head teachers, teaching staff, parents and other relevant implementers) were synthesised using the Theoretical Domains Framework (TDF, Cane et al. 2012). The TDF was used across studies in order to identify what needs to change for behaviour/implementation to change. The TDF was initially developed for implementation research to identify influences on health professional behaviour related to implementation of evidence-based recommendations and has been cited in over 800 peer-review publications making it one of the most commonly used frameworks in implementation science (Atkins et al., 2017). The TDF includes 14 theoretical domains synthesised from 33 behaviour change theories and 84 theoretical constructs in a single framework, providing a comprehensive coverage of possible individual, social and environmental influences on behaviour (Cane et al., 2012). This

integrative framework was developed for cross-disciplinary implementation and behaviour change research and has been applied across a wide range of clinical and community settings and in evidence synthesis to identify barriers and facilitators to implementation (Philips et al., 2015; Weatherson et al, 2017). The review author adapted the TDF (Cane et al., 2012) by dividing the original constructs into both facilitators and barriers. This enabled the review author to code the barriers and facilitators identified in the reviewed studies to the relevant TDF domains and constructs according to definitions pre-specified in the adapted coding manual developed by the author. The completed TDF coding manual as developed by the author can be found in Table 4.

To strengthen reliability the author coded facilitators and barriers to the TDF coding manual in three rounds. Main themes from facilitator/barrier coding were identified and illustrative comments for each theme were noted. Prior to the application of the critical analysis framework it was decided that any study that received a 'low' weight of evidence, would be excluded from the data extraction process. As all the included studies were rated as 'medium' or 'high' weight of evidence, all studies were in effect given equal value when extracting facilitators and barriers using the TDF.

### 3.6 Identified facilitators and barriers

Extracted facilitators and barriers were deductively coded using pre-existing domains (content analysis based on TDF). A total of eighty-seven facilitators and sixty-seven barriers were extracted across the nine studies. Some of the facilitators and barriers were coded under multiple domains, resulting in a total of one hundred and fifty-four coded facilitators/barriers. The most commonly coded TDF domains were *Environmental Context and Resources* (ECR) ( $n=37$ ) *Social/Professional Role and Identity* ( $n=20$ ), and *Social Influences* ( $n=20$ ). Facilitators and barriers were also coded in *Knowledge* ( $n=6$ ), *Skills* ( $n=5$ ), *Beliefs about Capabilities* ( $n=8$ ) *Beliefs about Consequences* ( $n=4$ ), *Goals* ( $n=7$ ) *Reinforcement* ( $n=12$ ), *Intentions* ( $n=11$ ), *Emotion* ( $n=3$ ), *Optimism* ( $n=4$ ) and *Memory, Attention and Decision processes* ( $n=9$ ) domains and *Behavioural Regulation* ( $n=12$ ). Extracted facilitators and barriers from the TDF domains are listed in Table 4.

#### 3.6.1 Facilitators

Across the nine studies, all fourteen domains were identified facilitators to the implementation of a whole school approach to student wellbeing and mental health in schools. The most frequently mapped facilitators reported across studies were: *Environmental Context and Resources* (9 studies) (e.g. human and financial resources, practical guidance/guidelines, ongoing professional support, positive home school links, positive and supportive school climate/culture, extra time dedicated to planning, physical location of school, addressing schools specific needs, building on what's already happening in school, current implementation process i.e. top-down or bottom-up), *Social/Professional Role and Identity* (9 studies) (e.g. leadership of person leading programme, complementary nature of programme to existing curriculum/values of school, flexibility and adaptability of programme, supportive school principal/head teacher, priority of programme within school, dedicated school team, collaboration and commitment among all staff) and *Social Influences* (9 studies) (e.g. co-operation among entire staff, whole staff commitment and support, collaboration among all stakeholders, launch events, working with relevant external agencies, leadership from 'school champion', dedicated support team and regular meetings with team and entire staff about the implementation process, networking and development of professional learning communities, ongoing mentorship and support, supportive role from Educational Psychologist, commitment from local community). Eight studies coded facilitators in the *Intentions* (e.g. staff recognition of the importance of the

programme, teachers interested in the area becoming involved, teachers involved who report high motivation in terms of attitudes, expectations and intentions, teachers believing the underlying goals of the programmes are consistent with existing practices and positive staff attitudes) and *Memory, Attention and Decision Processes* (e.g. simplicity of programme message, whole school decision making, commitment on decision making by principal, initiation of programme by local decision maker, voluntary participation, engagement of multiple partners in decision making process) domains. Seven studies coded facilitators in the *Goals* (e.g. priority status given to programme, clear planning and setting of goals from outset, planning organisation and timetabling for programme, integration of programme into policy/planning documents, demonstrating that goals of programme very close to goals of school, early implementation) *Optimism* (e.g. school and staff associating an identity in being part of a health promoting school, staff recognition of the importance of health education) and *Behavioural Regulation* (e.g. staff perceiving positive outcomes for students in terms of engagement/involvement in learning and improvement in social, emotional and behavioural outcomes, incorporation of programme into policy and planning and extra planning time to ensure commitment of teachers, demonstrating programme easily adaptable and consistency with school goals, options to partake, training to help motivate staff and change negative attitudes) domains. Facilitators from six studies were coded in the *Knowledge* domain (e.g. training, improvement in staff awareness and knowledge of mental health). Five studies coded facilitators in the *Reinforcement* domain (e.g. giveaways and prizes, becoming part of a network/professional learning community, invitations to annual seminars, positive impact felt by staff, positive experiences of working with other agencies, staff perceiving positive outcomes for students in terms of engagement/involvement in learning and improvement in social, emotional and behavioural outcomes) and *Emotion* (e.g. staff reporting a positive impact on them personally, school and staff identifying themselves as a health promoting school and something to be proud of, emotional impact of supporting students with mental health difficulties) domains. Facilitators from four studies were coded in the *Beliefs about Capabilities* (e.g. self-confidence, self-efficacy, teacher motivation when they are told programme consistent with what they are already doing and the mission/values of school). Facilitators from three studies were coded in *Beliefs about Consequences* (e.g. staff appreciation of programme, observing the positive impacts of programme) and *Skills* (skill development and support from project officers and professionals throughout programme implementation) domains.

### 3.6.2 Barriers

Across the nine studies, all fourteen domains were identified as barriers to the implementation of a whole school approach to student wellbeing and mental health in schools. The most frequently mapped barriers reported across studies were: *Environmental Context and Resources* (9 studies) (e.g. lack of policy and guidelines, poor organisational capacity, obstructive/unsupportive school community/cultures, inadequate resources, large class sizes, school location, time pressures and increased workloads, competing academic curricular demands, lack of ongoing professional support, malleability of programme, poor home/school links, top-down implementation process, inadequate training and implementation framework), *Intentions* domains (7 studies) (e.g. diminished priority compared to other curricular areas, focus on raising standardised assessment results, staff not believing in importance of programme, limited staff commitment, teachers not feeling health promotion is their role, staff reservations about their own ability to implement a health promotion programme) and *Behavioural Regulation* (7 studies) (e.g. teachers expressing difficulty at working through a whole-school approach as

prior to this they were relatively autonomous in their own classrooms, having to find time for an 'add-on' programme to an already full curriculum, breaking the habit of concentrating on academic outcomes and shifting focus to also consider student wellbeing, lack of guidance, resources and behavioural supports for class teachers) domains. Barriers from five studies were coded in the *Beliefs about Consequences* (e.g. poor staff beliefs in programme and beliefs about increased workload), *Reinforcement* (e.g. no guidance, resources or behaviour support given to class teachers, lack of ongoing professional support, difficult measuring impact of programme, no compensation of time or resources) *Social/Professional Role and Identity* (e.g. competing pressure from statutory assessments, unrealistic expectations of school role in mental health, no link between programme and curriculum, difficulty encouraging staff to lead mental health, negative attitudes and resistance from staff, co-ordinator not in leadership position) and *Social Influences* (e.g. negative attitudes and resistance from staff, lack of whole school community awareness, poor commitment from stakeholders, and lack of opportunities for networking and partnerships) domains. Four studies coded barriers in the *Beliefs about Capabilities* (e.g. difficulty encouraging staff to lead mental health, difficulty internalising mental health promotion and making it 'norm' and low teacher self-efficacy, staff feeling programme not adaptable to their professional identity) and *Emotion* (e.g. staff reservations about their own ability to implement the programme, emotional impact of supporting students with mental health difficulties) domains. Barriers from three studies were coded in the *Knowledge* (e.g. limited competence of staff, inadequate training and poor staff awareness of mental health) and *Memory, Attention and Decision Processes* (e.g. some teacher felt whole school decision making threatened feelings or autonomy and discretion, perception that programme was imposed on teachers by external decision makers) domains. Barriers from two studies were coded in the *Skills* (e.g. limited skills and competence of teachers to promote and support mental health promotion) and *Optimism* (e.g. poor staff beliefs in the programme, low teacher self-efficacy in delivering mental health programme) domains.

### 3.7 Summary of the systematic review

This systematic review sought to investigate the main factors (facilitators and barriers) that are thought to explain the implementation of whole school approaches to student wellbeing and mental health in schools. Nine studies were reviewed and limitations of findings and methodologies relative to the review questions were outlined and discussed. Facilitators and barriers identified were mapped onto the TDF which is a comprehensive implementation theoretical framework. The review identified a range of facilitators and barriers to implementation, incorporating all domains of the TDF. Table 4 below provides a summary of facilitators and barriers identified.

Findings are consistent with research that has identified multiple and complex ecological factors that need to be considered when implementing programmes in real world settings (Durlak & Dupre, 2008; Forman et al, 2013; Owens et al., 2014; Pearson et al, 2015). Such findings demonstrate the considerable challenges faced by school systems and their staff in implementing whole school mental health and wellbeing programmes.

**Table 4. Summary of themes (facilitators and barriers) identified and mapped onto TDF**

<b>TDF Domain</b>	<b>Theme – Facilitators</b>	<b>Theme - Barriers</b>
<b>Knowledge</b>	Training Ample knowledge and awareness	Inadequate training Poor staff awareness and knowledge
<b>Skills</b>	Staff skill development	Limited skills and competence of staff
<b>Social/Professional Role and Identity</b>	Leadership from principal Organisational commitment Organisational capacity Programme consistent with goals and values of school Complementary nature of programme to curriculum and existing workload Flexibility and adaptability of programme Priority within school system	Coordinator not in leadership position Inconsistent with professional identity and role Resistance and negativity from staff Competing work demands
<b>Beliefs about capabilities</b>	Staff self-confidence and self-efficacy Beliefs programme consistent with school goals and current practices	Low staff self-efficacy and self-confidence Belief programme not adaptable to their professional identity
<b>Optimism</b>	Organizational identification as a health promotion school Staff confidence in value of programme	Low staff confidence in value of programme Low teacher self-efficacy in programme delivery
<b>Beliefs about consequences</b>	Positive outcome expectancies	Poor staff beliefs in value of programme Consequential increased workload
<b>Reinforcement</b>	Incentives of programme participation	No rewards/incentives for participation
<b>Intentions</b>	Staff recognition of the importance of programme Staff highly motivated in terms of positive attitudes, expectations and intentions Staff beliefs that programmes consistent with existing practices	Low priority of programme Limited staff commitment Low staff self-confidence Belief programme inconsistent with professional identity and role
<b>Goals</b>	Priority of programme Clear planning and goal setting Integration into policy Congruence with school goals	Competing priorities
<b>Memory, attention and decision Processes</b>	Whole school decision making and planning Group decision making and planning Engagement of multiple partners in decision making process Commitment from principal to deliver decisions made Voluntary participation Simplicity of programme message Initiation by local decision maker	External decision making Whole school decision making threatening teacher autonomy
<b>Environmental context and resources (ECR)</b>	Sufficient resources Positive organisational culture/climate Positive home/school communication/links Organisational leadership Physical environment	Insufficient resources Obstructive school community culture Poor organisational capacity Multiple competing demands Physical environment Insufficient support from wider community Negative home/school communication/links
<b>Social influences</b>	Collaboration and commitment among whole staff Collaboration across all stakeholders and multiple partners Organisational leadership	Resistance and negativity from school staff Poor networking/partnerships opportunities Poor commitment from stakeholders Poor awareness from whole school community

TDF Domain	Theme – Facilitators	Theme - Barriers
<b>Emotion</b>	Positive affect on staff	Negative emotional impact on staff
<b>Behavioural Regulation</b>	Training that enhanced staff motivation and confidence Flexibility and adaptability of programme Voluntary participation Positive outcome expectancies Programme consistent with goals and values of school Integration into planning and policy document Sufficient resources given to teachers	Breaking cycle of sole focus on academic outcomes Shifting to a whole school approach way of working Lack of guidance, resources and support Finding time to deliver an 'add-on' programme

### 3.8 Limitations of the systematic review

A broad review was conducted to generate a general picture of the factors facilitating or hindering the implementation of whole school approaches to student wellbeing and mental health promotion. Gough (2007) points out that a research reviewer may want to include all the research on a particular topic whatever the research design, even if the designs differ in their ability to answer the review question and may require different types of issues to be considered in rating their quality and relevance. Therefore, a system of weighting allows for a review to employ a broader question and thus broader inclusion criteria in the knowledge that weighted judgements can be applied to the broader range of evidence identified. Although published coding protocols and quality criteria checklists were applied for WoE A ratings, they were adapted for the purpose of this systematic review and WoE B, WoE C and WoE D criteria were devised by the current researcher, with reference to relevant literature and stipulated inclusion and exclusion criteria. The subjectivity of reviewer-designed quality checklists may be considered a limitation of the systematic review, having implications for overall ratings and weighing of evidence.

Additionally, as data was collected primarily through interviews and relied on participants' self-reporting of their practices and beliefs, it may not accurately reflect actual practices. The validity of self-reported data is dependent upon the honesty and openness of the individual participant and this should be considered in the interpretation of findings (Mertens, 2015). External biases caused by social desirability or approval in addition to selection bias must also be considered when interpreting these findings as the participants who self-selected to take part may hold stronger views or have responded in a manner that represents them in a more favourable light (Mertens, 2015). Furthermore, while the case studies reviewed outline intervention implementation processes applied in practice, data triangulation helped to strengthen the trustworthiness of the data, findings are relevant to the specified context, as opposed to a general population sample (Yin, 2009).

#### Conflict of interest statement

The authors report no conflicts of interest.

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