

# Review: Delivering mental health support within schools and colleges – a thematic synthesis of barriers and facilitators to implementation of indicated psychological interventions for adolescents

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**Background:** Increasing the role of schools and colleges in the provision of mental health services for young people has the potential to improve early intervention and access to treatment. We aimed to understand what factors influence the successful implementation of indicated psychological interventions within schools and colleges to help guide increased provision of mental health support within education settings. **Methods:** Systematic search for studies that have reported barriers or facilitators to the implementation of indicated interventions for adolescent emotional disorders delivered within schools and further education/sixth form colleges (CRD42018102830). Databases searched were EMBASE, MEDLINE, PsycINFO, CINAHL, British Nursing Index, ASSIA, ERIC and British Education Index. A thematic synthesis of factors reported to impact implementation was conducted. **Results:** Two thousand five hundred and sixty-nine records and 177 full texts were screened. Fifty studies were identified for inclusion, all of which were of school-based interventions. Eleven analytic themes were developed encompassing intervention characteristics, organisational capacity, training and technical assistance, provider characteristics and community-level factors. Findings indicate the need to select appropriate interventions, consider logistical challenges of the school context and provide training and supervision to enable staff to deliver interventions with fidelity. However, structural and environmental support is required for these facilitators to have the greatest impact on successful implementation. **Conclusions:** Implementing indicated school-based mental health interventions is challenging. Those involved in planning school-based mental health initiatives must be alert to the impact of factors on multiple interacting levels. There is a lack of research on implementing mental health support within further education and sixth form colleges.

## Key Practitioner Message

- Increased utilisation of schools and colleges as a setting for early intervention has been proposed as a means of improving access to mental health treatment, but successful implementation of mental health interventions within educational settings is challenging.
- Based on a synthesis of current evidence, we recommend that young people and education professionals should be involved in the selection of school-based interventions to ensure they are acceptable and practical to deliver within the logistical constraints of the school environment.
- Those delivering interventions within schools, as well as staff involved in identifying young people who might benefit from these interventions, must receive high-quality ongoing training and support. Senior school leaders play an important role in championing mental health interventions and developing a school culture that prioritises mental well-being.
- Health and education policy should be designed to promote a cross-sector focus on the emotional health of young people.
- There is a lack of evidence on the implementation of indicated psychological interventions within sixth form and further education colleges.

**Keywords:** Mental health; adolescent; school; school-based; implementation

## Introduction

A recent report on the prevalence of mental health problems in UK schools found that approximately one in five adolescents report symptoms of an emotional disorder (Deighton et al., 2019). Schools and colleges can play an important role in the emotional health and well-being of young people and are well placed to identify those with mental health problems (Public Health England, 2015). Increased recognition of the potential of schools and colleges as a setting for early intervention has led to an expansion of school-based mental health interventions in many high-income countries (Fazel, Hoagwood, Hoagwood, Stephan, & Ford, 2014). In the UK, mental health provision has traditionally been delivered within the health service. However, recent policy proposals (Department of Health, 2017; Department of Health & Social Care, 2019; NHS England, 2019) have led to an increased role of schools and colleges in the provision of mental health services for young people.

It is critical that the development of these new services is evidence informed to maximise the benefits realised from scarce public resources. Many studies have found school-based interventions to have positive effects on young people's mental health (Fazel, Hoagwood, et al., 2014; Werner-Seidler, Perry, Calear, Newby, & Christensen, 2017). A recent network meta-analysis found little evidence that school-based interventions for the prevention of anxiety and depression are effective (Caldwell et al., 2019). However, a meta-analytic review of indicated school-based interventions found some evidence that these interventions are effective in reducing elevated depression and anxiety symptoms (Gee et al., 2020), though there is considerable variability in effect sizes reported.

It has been suggested that fidelity of implementation of school-based interventions may be crucial to their effectiveness (Paulus, Ohmann, & Popow, 2016). Further, effective mental health interventions are often not successfully adopted and sustained, in part due to insufficient consideration of compatibility with the organisational contexts in which they will be used (Proctor et al., 2009). Therefore, it is important to understand factors influencing the successful implementation of mental health interventions within schools and colleges to help guide the planned increase in the provision of mental health services within educational settings.

To maximise the relevance of the findings to UK policy developments and to facilitate meaningful synthesis, we focused this review on indicated interventions for adolescents experiencing symptoms of an emotional disorder within high-income countries. Emotional disorders (e.g. anxiety, mood, post-traumatic stress) are the most prevalent mental health conditions during adolescence, and while rates of behavioural disorders (e.g. hypokinetic, conduct) have remained broadly stable, rates of emotional disorders among young people in England have increased by around 50% since 2004 (Vizard et al., 2018). 'Indicated' interventions refer to those interventions delivered only to pupils identified as experiencing symptoms of a disorder.

We aimed to synthesise the available evidence on barriers and facilitators of successful implementation of indicated interventions within schools and colleges to inform

planned expansion of mental health support within education settings. Therefore, the research question the review was intended to address was as follows: 'What are the barriers and facilitators to the implementation of indicated psychological interventions for adolescent emotional disorders delivered within schools and further education or sixth form colleges located in high-income counties?'

## Methods

### Design

A rapid evidence synthesis (Haby et al., 2016) was conducted in the context of an ongoing NIHR funded feasibility study of delivery of early intervention for adolescent borderline personality disorder in collaboration with schools and colleges (the BEST study: ISRCTN 16862589). To ensure completeness and quality, core features of the systematic review process were retained, including publication of the protocol, a comprehensive literature search and duplicate study selection and data extraction. The key simplification made to the review process was omission of formal assessment of the scientific quality of the included studies. This was considered less relevant to the aims of the review since the transferability of findings related to barriers and facilitators to implementation of an intervention is not necessarily dependent on the validity of the study design used to examine its effectiveness, risk of bias or other factors commonly assessed as part of determining study quality. In addition, the scope of the review was limited by including only English language publications and studies conducted in high-income countries.

The protocol was registered with the PROSPERO registry prior to implementation of the search strategy (ID: CRD42018102830).

### Search strategy

We searched eight electronic databases (EMBASE, MEDLINE, PsycINFO, CINAHL, British Nursing Index, ASSIA, ERIC and British Education Index) from inception to 15th November 2018. An example search string is available as an online data supplement (Box S1). To identify potentially eligible articles missed by the electronic search, we hand searched a list of records retrieved as part of a recent related systematic review (Gee et al., 2020) and contacted key experts in the field..

### Eligibility criteria

Studies were included if they met the following criteria: (a) the study had an interventional design; (b) participants were aged 10–19 years at time of recruitment; (c) all participants were presenting with elevated mental health symptoms or psychological distress; (d) the intervention studied was a psychological intervention (i.e. based on psychological theory as evidenced in a manual or other supporting material) designed to reduce symptoms of an emotional disorder, (e) the intervention studied is delivered wholly or partly within an institution whose primary function is education, (f) the study was conducted in a high-income country (as defined by the World Bank); and (g) the report included information on barriers and/or facilitators to the implementation of the intervention.

We included studies with any interventional design, that is any study that involved the implementation of an intervention. Purely observational studies of interventions already part of routine practice were excluded. Studies of universal interventions delivered to all pupils were outside the scope of this review. Studies of integrated indicated-universal approaches were eligible for inclusion only if separate findings were reported on implementation of the indicated component. The focus of this review was on the implementation of interventions with schools and (sixth form/further education) colleges; therefore, studies of interventions delivered within universities or other higher education institutions were excluded.

### Study selection

Study selection was carried out with the aid of Covidence systematic review software (Veritas Health Innovation n.d.). After duplicate records were removed, the titles and abstracts of all articles identified by the literature search were independently reviewed by two reviewers (two of BG, TC, BC, SF and CJ). All disagreements between reviewers were discussed as a team and consensus decisions reached. The full texts of articles deemed potentially relevant were obtained and assessed for eligibility by two of BG, TC, BC, SF, CJ, JW and CN. Reviewers assessed eligibility independently, and all disagreements regarding eligibility or conflicts in criteria for exclusion recorded were discussed by the two reviewers concerned and, if consensus not reached, resolved by a third reviewer. A flow diagram of the selection process was maintained as per PRISMA guidance (Moher et al., 2009).

### Data extraction

Data were independently extracted by two reviewers (two of BG, SF, BC, CJ and KK) and cross-checked to ensure accuracy. Contextual information was recorded using a piloted data extraction spreadsheet. The following information regarding the study sample was recorded: lower and upper age, gender (percentage female) and criterion for elevated mental health symptoms or psychological distress. In addition, the following information about the intervention was recorded: name, brief description, planned contact hours, whether parents or carers were involved, and whether the intervention was delivered by staff members internal to the school or external facilitators. Included articles were imported into NVivo where barriers and facilitators were synthesised as described below. Post hoc, we extracted details of the participant identification and referral process employed in each study.

### Data synthesis

A thematic synthesis (Thomas & Harden, 2008) of factors reported to impact intervention implementation was conducted with the aid of NVivo (version 12) qualitative data analysis software (QSR International, 2012). Included papers were imported into NVivo, and sections of the text describing barriers or facilitators to implementation, including both quoted original data and author interpretation, were coded using an inductively developed coding structure. Coding of all included studies was completed by BG and independently by one of SF, BC, CJ and KK. Discrepancies in coding were discussed by the two reviewers concerned and consensus interpretations researched in all cases.

Codes generated inductively were first organised into descriptive themes that aimed to summarise the barriers and facilitators reported, staying close to the primary studies. The next stage of the analysis involved developing analytic themes by structuring and interpreting the descriptive themes according to the selected theoretical framework. This stage of the analysis aimed to 'go beyond' describing the findings of the included studies to generate new understandings of the factors influencing successful implementation of indicated school-based mental health interventions. A suitable framework was selected a posteriori with the aid of Nilsen's taxonomy of implementation of science theories, models and frameworks (Nilsen, 2015). The theoretical framework was selected only after generation of initial descriptive themes to ensure that, as far as possible, the analytic themes developed were data driven rather than reflecting the review team's prior assumptions.

The Ecological Framework for Effective Implementation (Durlak & Dupre, 2008) is premised on the view that a multilevel ecological perspective is necessary for understanding successful implementation. It is a determinant framework (Nilsen, 2015) which aims to understand influences on implementation outcomes by specifying individual, organisational and community-level factors that act as implementation barriers and enablers. This framework was deemed to be an appropriate organising concept for the current review because schools and colleges are dynamic and complex social organisations, and thus, the

implementation of new practices within them is influenced by factors on multiple interacting levels (Zhao & Frank, 2003).

A sensitivity analysis was conducted in which only studies of interventions found to be effective were retained. Studies in which there was no evidence that the intervention was effective in improving the primary outcome or that did not report group-based statistical analysis of intervention effectiveness were removed from the thematic synthesis to explore whether implementation issues differed by study outcome.

## Results

### Characteristics of included studies

Our electronic searches returned 2559 unique study records. In addition, 10 studies were identified through hand searching and correspondence with experts. The study selection process is illustrated in Figure 1.

We identified 50 unique papers that met the inclusion criteria (Table 1). Included studies were published over a twenty-year period between 1998 and 2018. Most included studies were of indicated interventions for young people with symptoms of depression ( $n = 17$ ), anxiety ( $n = 16$ ), post-traumatic stress disorder ( $n = 5$ ) or either depression or anxiety symptoms ( $n = 3$ ).

The majority of studies were of interventions described as cognitive behaviour therapy (CBT) or CBT-based ( $n = 35$ ). Half the included studies ( $n = 25$ ) were of interventions delivered by an external facilitator, 11 were delivered by an internal school-based staff member and 10 by both internal and external personnel. The remaining studies ( $n = 4$ ) did not report whether those delivering the intervention were internal or external to the school.

Although studies of interventions delivered within sixth form and further education colleges were eligible for inclusion, no such studies were identified. Since all included studies were of interventions delivered within schools, the results of the thematic synthesis below are specific to school-based interventions.

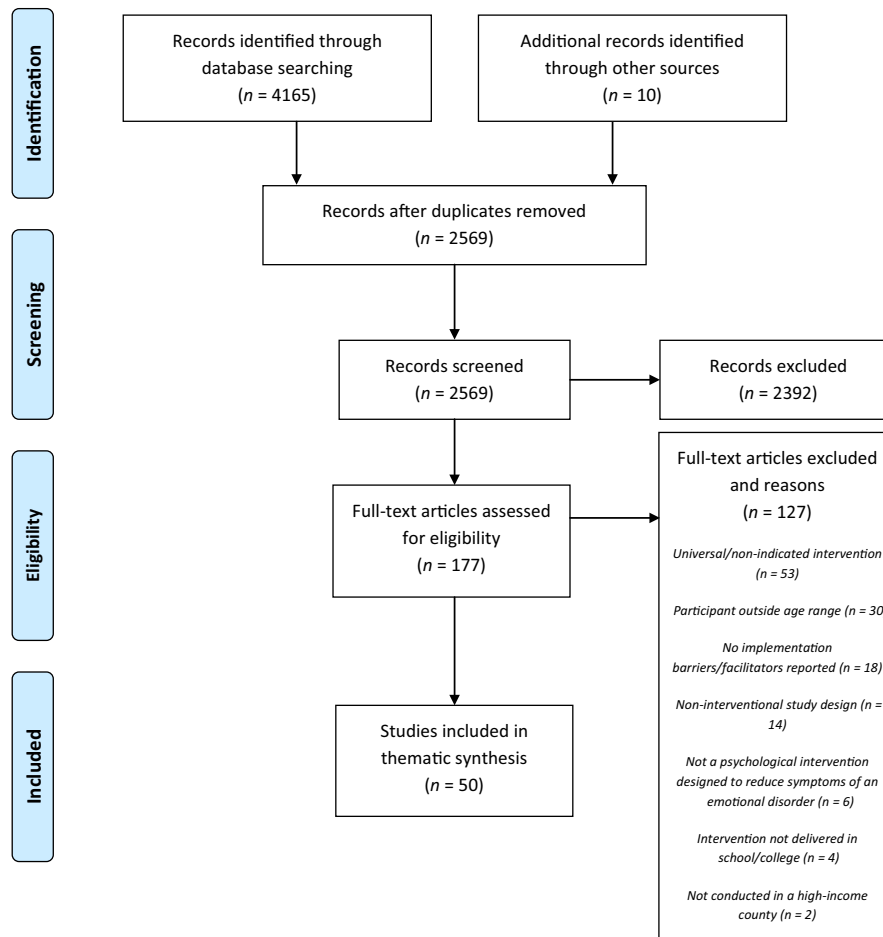
### Thematic synthesis

Eleven analytic themes were developed (Figure 2): two related to intervention characteristics (acceptability; practicality), three related to organisational capacity, that is practices, processes and culture of the structures through which the intervention is implemented (relationships between intervention facilitators and school staff; support of school leadership; school environment), two related to training and technical assistance (quality of training and ongoing supervision; suitability of intervention manual and other materials), two provider characteristics (ability of staff to deliver the intervention successfully; ability of staff to identify eligible students) and two community-level factors (stigma and mental health literacy; priorities of health and education systems).

The number of the included studies that contributed to each analytic theme is given in brackets next to the name of each theme below. Table S1 (available as an online data supplement) details which of the studies contributed to each theme. Quotes from primary papers to be presented alongside the findings were selected based on how clearly they exemplified the themes.

### Intervention characteristics

*Acceptability (24 studies).* Intervention acceptability was noted as important to attendance and engagement,



**Figure 1.** PRISMA diagram illustrating study selection process

and hence to successful implementation. Acceptability reflects the extent to which people delivering or receiving an intervention consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention (Sekhon, Cartwright, & Francis, 2017). Characteristics identified as influencing the acceptability of interventions included whether it was experienced as helpful, enjoyable, developmentally appropriate and well designed, and the format of delivery. High acceptability was achieved through ensuring the intervention matched the needs and preferences of participating adolescents, by focusing on issues important to their lives and presenting material in an interactive, appealing and accessible but mature way.

Many of the school-based interventions studied were delivered in a group format. This was sometimes identified as contributing to high acceptability through capitalising on the developmental priority given to peer relationships during adolescence. A key perceived benefit of group delivery was the sense of belonging, mutual support and social connections fostered through participating in activities with other young people experiencing similar difficulties. For instance, Riley (2012) reported that ‘pupils favoured group over individual input due to feelings of reduced isolation, opportunities to make friends, normalisation of feelings, learning from others, building confidence and supporting each other’.

However, group delivery was also frequently identified as a barrier to implementation through contributing to lack of acceptability for some students. A group was

viewed as an unsuitable therapeutic setting for some young people, whether because of behavioural issues (‘Some of the groups have contained students that do not work in a group setting appropriately’ (Butler-Hepler, 2013)) or young people not feeling comfortable disclosing personal experiences in front of peers (‘the group setting was inhibiting for some students, especially given that they knew one another relatively well’ (Listug-Lunde, Vogeltanz-Holm, & Collins, 2013); ‘students did not want to talk about their fears in front of peers’ (Drmic, Aljunied, & Reaven, 2017)). This created problems conducting intervention sessions as planned and ensuring the intervention was meaningful for all group members.

**Practicality (32 studies).** The intervention feature most frequently reported as impacting the success of implementation was the extent to which the intervention could be flexibly deployed to cause minimal disruption to school routines. Restricting the length of sessions to single class periods, structuring the programme of sessions around the school term, scheduling sessions to minimise interference with academic activities and allowing for breaks in intervention delivery due to examination periods and other school events were commonly reported adaptations required for successful implementation within the school setting.

Certain intervention components were noted as being problematic to implement within a school setting. Parent/carer involvement was consistently noted as



**Table 1.** Characteristics of included studies

Author(s) (Year)	<i>n</i>	Lower age	Upper age	% female	Presenting problem	Identification method <sup>a</sup>	Intervention type	Parental involvement	Internal/ external delivery
Bei et al. (2013)	10	13	15	100	Sleep problems	A	Mindfulness	No	Both
Bernstein (2010)	4	11	18	100	Anxiety	C	CBT	Yes	Internal
Berry and Hunt (2009)	46	12	15	0	Anxiety	C	CBT	Yes	External
Burke, Prendeville, and Veale (2017)	7	10	11	–	Anxiety	C	CBT	Yes	Unclear
Butler-Hepler (2013)	59	11	14	71	Depression	A	CBT	No	Both
Chu and Weissman (2009)	35	12	14	60	Either depression or anxiety	C	BA	No	External
Chu et al. (2016)	35	12	14	71.4	Either depression or anxiety	A	BA	No	Both
Cooley, Boyd, and Grados (2004)	10	10	11	80	Anxiety	A or C	CBT	No	External
Cooper et al. (2010)	27	13	15	77.8	Depression	A	Humanistic Counselling	No	External
Crisp et al. (2006)	27	–	–	74	Depression	C	CBT	No	External
Drmic et al. (2017)	44	13	15	14	Anxiety	C	CBT	Yes	Both
Ehnholt and Smith (2005)	26	11	15	34	Psychological difficulties as a result of trauma	C	CBT	No	External
Feldman (2007)	29	11	13	44.8	PTSD	A	CBT	Yes	Both
Fitzgerald, Rawdon, and Dooley (2016)	127	15	18	57.5	Anxiety	A	Attention Bias Modification	No	Unclear
Gartenberg (2017)	2	15	15	50	Anxiety	C	CBT	No	External
Ginsburg and Drake (2002)	12	14	17	83.3	Anxiety	A	CBT	No	External
Greca, Ehrenreich-May, Mufson, and Chan (2016)	14	13	18	79	Either depression or anxiety	A	IPT	No	External
Hunt, Crino, and Erskine (2009)	260	11	13	43	Anxiety	A	CBT	Yes	Internal
Jaycox et al. (2009)	76	–	–	51.3	PTSD	A	CBT	No	Internal
Kaplinski (2007)	49	14	18	63.3	Depression	C	CBT	No	External
Lamb, Puskar, Serika, and Corcoran (1998)	41	14	19	–	Depression	A	CBT	No	External
Liberman and Robertson (2005)	33	15	17	–	Schizotypy	A	CBT	No	Unclear
Listug-Lunde et al. (2013)	16	11	14	37.50	Depression	A	CBT	No	Both
Livheim et al. (2015)	98	12	18	82.70	Depression	C	ACT	No	Both
Masia et al. (2001)	6	14	17	50	Anxiety	C	CBT	No	External
Masia-Warner et al. (2005)	35	13	17	74	Anxiety	A or C	CBT	Yes	Both
Masia-Warner et al. (2016)	138	14	16	68	Anxiety	A or C	CBT	Yes	Both
McCarty, Violette, and Mccauley (2011)	67	12	13	55.6	Depression	A	CBT	Yes	Unclear
Melnyk, Kelly, and Lusk (2014)	16	14	17	56	Anxiety	C	CBT	No	External
Messinger et al. (2011)	8	11	13	62.5	Anxiety	A	CBT	No	External
Morsette, Pol, Schuldberg, Swaney, and Stolle (2012)	57	10	15	56	PTSD	A	CBT	Yes	Internal
Mowatt (2017)	16	13	15	68.80	Depression	C	CBT	No	External
Mufson et al. (2004)	63	12	18	84	Depression	A	IPT	No	Internal
Oros (2016)	6	14	17	100	BPD	A	DBT	No	External
Pass et al. (2018)	32	11	18	68.75	Depression	B or C	BA	Yes	External
Pearson (2017)	3	11	12	0	Anxiety	C	CBT	Yes	External

(continued)

Table 1. (continued)

Author(s) (Year)	n	Lower age	Upper age	% female	Presenting problem	Identification method <sup>a</sup>	Intervention type	Parental involvement	Internal/external delivery
Rickard et al. (2016)	47	11	17	36	General social/emotional problems	C	CBT	Yes	Internal
Riley (2012)	12	11	13	50	Psychological distress as a result of loss/change	C	Grief education	No	External
Robinson et al. (2015)	21	14	18	81	Suicidal ideation	B	CBT	No	External
Rohde, Stice, Shaw, and Gau (2014)	378	13	19	68	Depression	A	CBT	No	Internal
Ruffolo and Fischer (2009)	60	11	18	–	Depression	B or C	CBT	No	Internal
Schoenfeld and Mathur (2009)	3	11	12	0	Anxiety	C	CBT	No	External
Scotti (2014)	7	14	18	100	Eating disorder	C	DBT	No	External
Stasiak, Hatcher, Frampton, and Merry (2014)	34	13	18	41	Depression	A	CBT	No	External
Stein et al. (2003)	126	–	–	56	PTSD	A	CBT	No	Both
Stein (2011)	126	–	–	56	PTSD	A	CBT	No	Internal
Stice, Rohde, Shaw, and Gau (2011)	306	14	19	100	Eating disorder	A	Dissonance intervention	No	Internal
Woods and Jose (2011)	83	13	15	–	Depression	A	CBT	No	Internal
Young, Mufson, and Gallop (2010)	57	13	17	59.7	Depression	A	IPT	Yes	External
Young et al. (2016)	186	12	16	66.7	Depression	A	IPT	Yes	External

ACT, acceptance and commitment therapy; BA, behavioural activation; BPD, borderline personality disorder; CBT, cognitive behavioural therapy; IPT, interpersonal therapy; PTSD, post-traumatic stress disorder.  
<sup>a</sup>A = Screening assessments/questionnaires, B = self-referral, C = nomination/staff-referral.

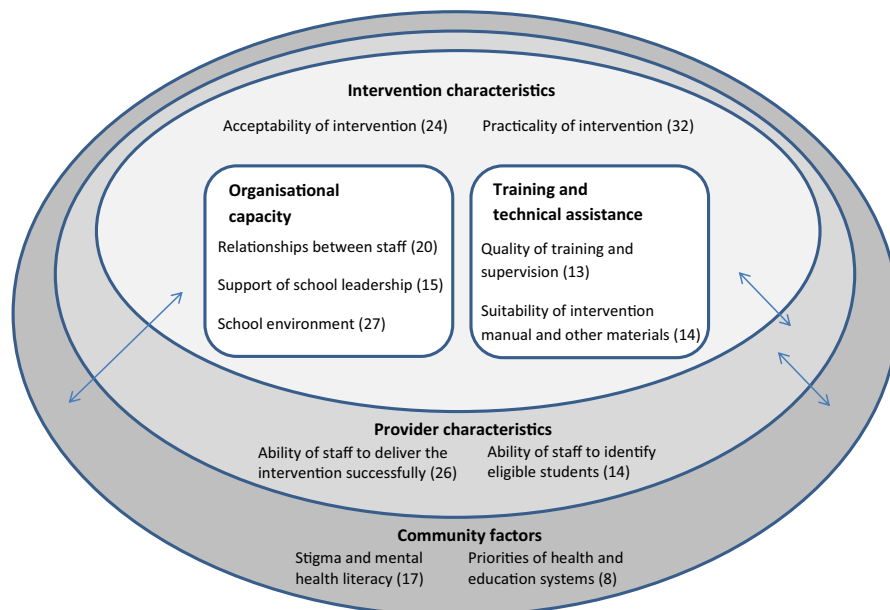


Figure 2. Diagram of factors reported to influence the successful implementation of school-based indicated interventions for adolescents with symptoms of an emotional disorder organised in accordance with the Ecological Framework for Effective Implementation

desirable but challenging to achieve. In some studies, components of the intervention involving parents/carers were noted to have been removed or reduced due to resource limitations or concerns about the feasibility of organising sessions for parents/carers within the school

setting. Studies that sought to involve parents/carers in sessions commonly reported disappointing attendance.

A further intervention component recurrently identified as posing challenges to implementation was exposure to feared activities, objects or situations. The school

setting was noted to facilitate some types of exposure work; for instance, Masia, Klein, Storch, and Corda (2001) in their study of an intervention for social phobia noted that the school setting enabled the intervention facilitators to set up in vivo exposure exercises within the schools. However, other researchers encountered barriers to conducting exposure therapy within a school setting. These included practical difficulties arranging exposure to infrequent, unpredictable or inaccessible events or objects, difficulties planning appropriately idiosyncratic exposure hierarchies in a group setting, resistance from adolescents and lack of confidence among intervention facilitators not experienced in the use of exposure.

Some studies reported group format as contributing to increase practicality through making more efficient use of available resources. This was recognised as particularly important in communities with limited access to mental health resources (Listug-Lunde et al., 2013). However, difficulty identifying a sufficiently homogenous group of students within a single school for group delivery to be appropriate was also discussed. Moreover, a study by Oros (2016) highlights the risk of iatrogenic harm as a result of inappropriate group composition: 'participants should be screened more scrupulously for inclusion...as it appears peer contagion may have played a role in worsening BPD symptoms for [some] participants'.

#### *Organisational capacity*

*Relationships between intervention facilitators and school staff (20 studies).* Positive relationships between individuals delivering the intervention and other staff members were frequently cited as an important facilitator of successful implementation. Where the intervention was facilitated by staff external to the school, effective communication with school staff and efforts to integrate into school systems were seen as particularly important. Effective collaborations between external providers and school staff were sometimes supported by establishing a reciprocal partnership in which external staff members contributed their time and expertise to school activities beyond the intervention itself.

Maintaining positive relationships with teaching staff not involved in implementation of interventions was sometimes cited as a challenge. For instance, Scotti (2014) reported that, while young people and their parents perceived a school-based intervention to be both acceptable and beneficial, teachers found students attending sessions during the school day unacceptably disruptive. Scheduling sessions outside of the normal school day minimised this disruption, but 'the intervention was more difficult to implement with fidelity due to sporadic attendance and poor treatment adherence'. Therefore, securing 'buy in' from teaching staff and maintaining positive relationships between intervention facilitators and teachers is important to support successful implementation.

*Support of school leadership (15 studies).* The support and involvement of senior school leaders was frequently cited as a key facilitator of successful implementation. Support at the appropriate level within the school hierarchy ensured that necessary resources were made available, and positively impacted support for

implementation of the intervention within the wider school system. For instance, Drmic et al. (2017) reported the vital importance of the involvement of a member of the school leadership team as an 'opinion leader' who was 'intimately involved in all aspects of the implementation project' and 'was able to garner support/interest from key stakeholders'. Conversely, where interventions were implemented without the clear endorsement and direct input of a school's senior leadership team, interventions were more difficult to implement and sustain. For instance, Pass, Sancho, Brett and Jones (2018) reported that 'we had to withdraw resources from one school where the senior leadership were not involved, and a major staff restructuring led to loss of pastoral leads who had been the main contacts for the therapy team'.

*School environment (27 studies).* Logistical issues associated with delivering psychological interventions within the school environment were the most commonly reported barrier to implementation. Difficulties scheduling sessions within the constraints of school timetables were frequently reported. Kaplinski (2007) commented 'we did not anticipate the regularity with which scheduled sessions would be interrupted or cancelled due to fire alarms, school assemblies, testing and late-arrival schedules'. Lack of appropriate spaces within schools in which to conduct sessions was also a barrier.

The extent to which the wider school environment was conducive to good mental health and provided a suitable setting for therapeutic work was also noted as important to the successful implementation of interventions. For instance, Ehntholt & Smith (2005) reported that two schools participating in a study of a group intervention for children with post-traumatic stress symptoms 'were far from ideal environments for the establishment of therapeutic groups...it was difficult for the children to genuinely relax during the sessions due to the school's loud, chaotic environment.'

However, encouragingly, staff participants in a study by Butler-Hepler (2013) commented that following implementation of the intervention, the 'school climate seems to be healthier' and 'teachers are more willing to have students receive counselling services', suggesting that the implementation of psychological interventions within schools has the potential to positively impact the school environment. Therefore, there is the potential for successful implementation to initiate a virtuous cycle.

#### *Training and technical assistance*

*Quality of training and ongoing supervision (13 studies).* The need for high-quality training of intervention facilitators and supervision from appropriately experienced and qualified experts to support fidelity of delivery was emphasised in several studies.

While the importance of training and supervision was consistently endorsed, it appears that more intensive training and supervision are likely to be required for interventions delivered by staff with relatively little experience of delivering psychological interventions.

More informal support from others facilitating the intervention was also sometimes identified as important to successful delivery. For instance, Ruffolo and Fischer (2009) found that 'the mentorship supervision model supported the school-based social workers in connecting

with each other and providing each other ongoing support'. However, the authors noted that protecting staff time to participate in supervision was challenging, and would require sustained funding and leadership support.

*Suitability of intervention manual and other materials (14 studies).* The provision of an intervention manual which was clear and easy to follow, and good quality supporting materials such as workbooks and resources to support homework exercises were identified as facilitators of successful implementation. Several authors suggested that well-structured, highly manualised interventions may be more easily mastered by novice facilitators, enhancing treatment fidelity. Where interventions employed technology to facilitate delivery, it was important that these were well designed, with user-friendly interfaces to maximise acceptability and engagement.

#### *Provider characteristics*

*Ability of staff to deliver the intervention successfully (26 studies).* While some interventions studied were delivered by members of the research team or other external specialists, many of the interventions involved training existing school-based staff with diverse professional backgrounds to deliver a manualised programme. Skilled facilitation of interventions was noted as crucial to successful implementation, and in all studies where this was reported on, trained school-based professionals were found to be able to deliver the interventions with acceptable fidelity. However, the findings of some studies suggest that school-based professionals, who were often less experienced in delivering manualised interventions for emotional problems, were less able to implement the interventions as planned than specialist mental health staff. While delivery of interventions by external specialist might therefore seem to be supported, some authors of studies of interventions that relied on external providers expressed concern about the sustainability and cost-effectiveness of this delivery model.

*Ability of staff to identify eligible students (14 studies).* There were also some concerns raised about the feasibility of procedures used to identify students for whom interventions would be suitable. While school-wide screening and other comprehensive recruitment strategies coordinated by the research team were reported to be successful in identifying eligible young people, these were acknowledged to be unlikely to be sustainable outside the research context. While recruitment strategies relying on referrals from school staff members were often reported to be effective, the capacity of school staff to identify students who could benefit from an intervention was raised as a concern by some study authors. For instance, Pass et al. (2018) described how 'feedback from school staff suggested that many lacked confidence in identifying students with depression symptoms and had very little protected time to consistently manage the referral process.'

#### *Community factors*

*Stigma and mental health literacy (17 studies).* The impact of stigma on implementation was considered by a number of study authors. The potential for stigma by

peers within the school community was a concern for some young people and their parents. This finding might partially explain the lower than anticipated student take up and difficulties obtaining parental consent for participation reported by many studies.

However, not all studies found stigma to be a barrier to implementation. For instance, Crisp, Gudmundsen and Shirk (2006) asked participants to complete a self-report measure of their perceptions of barriers to treatment. Items assessing potential barriers related to stigma (e.g. 'My friends thought I was stupid for going to therapy', 'I felt uncomfortable about going to sessions at school') were consistently rated as never or rarely a problem. Several authors reported that participating in a school-based intervention was viewed as less stigmatising than accessing conventional mental health treatment.

*Priorities of health and education systems (8 studies).* The need to align the priorities of the health-care and education systems to facilitate successful implementation of school-based mental health interventions was alluded to by a number of studies. Lack of adequate resource allocation for services to support mental health and well-being within schools, arguably a symptom of low prioritisation of these issues, was also identified as a barrier to effective implementation.

#### *Sensitivity analysis*

Themes remained broadly similar when studies in which there was no evidence of effect on the primary outcome or that did not report statistical analysis of intervention effectiveness were removed. There was a change of more than 5% in the percentage of included studies that contributed to two of the themes: 'practicality' was reported as impacting the implementation of fewer of the interventions found to be effective than the complete set of included interventions; 'quality of training and ongoing supervision' was reported as a facilitator of implementation only by the subset of studies of interventions found to be effective.

## Discussion

The aim of this review was to identify and synthesise factors reported in the literature to influence the implementation of indicated interventions for adolescent emotional disorders delivered within schools and colleges. The thematic synthesis resulted in 11 analytic themes which bring together findings from 50 primary studies. Themes encompassed characteristics of the interventions, training and support, organisational factors and community-level factors that have been identified as impacting implementation.

The findings of this review support the view that delivering indicated mental health interventions within a school context presents many challenges and that implementation is influenced by factors on multiple interacting levels. The most frequently reported challenges were logistical in nature. Practitioners delivering interventions in a school setting must be aware of and prepared to work within the constraints imposed by school calendars, timetables and the physical school environment. It is important that those designing school-based mental health initiatives select



interventions that can accommodate such constraints and consider whether all components of an intervention are feasible to deliver within the school context. However, which interventions will be practical to deliver within the school context will depend on factors at the organisation and community level.

Having intervention champions at an appropriately senior level within the school is crucially important if intervention delivery is to be prioritised and appropriate resources made available. Senior leadership support was reported to be influenced by the extent of competing priorities, and thus, it is important that both the health-care and education systems maintain a shared focus on the emotional health of young people. UK schools have faced criticism for focusing on academic achievement at the expense of mental health and well-being (Turner, 2018). However, recent proposals to include emotional and mental well-being in the education inspection framework (Ofsted, 2019) might increase the priority given to mental health initiatives in future. Close collaboration between the Department of Health and Department for Education in the production of the Green Paper on transforming mental health provision for young people (Wormald, 2018) sets an important precedent of joint working with the potential to impact implementation at the local level.

Studies included in the review evaluated interventions delivered by a wide variety of professionals, including external providers, and existing school-based staff. While there is some evidence that external personnel are able to deliver interventions with higher fidelity than internal school-based staff, reliance on external facilitation was accompanied by some challenges. For instance, it was noted that external facilitators must make particular efforts to establish effective communication with school staff and to integrate into school routines. Authors also raised concerns about the sustainability and cost-effectiveness of reliance on external facilitators.

This potential tension between fidelity and sustainable implementation might be partially addressed by appropriate supervision and ongoing support. The quality of training and support is likely to be particularly important where intervention facilitators are less experienced in delivering evidence-based interventions. Further, it appears that well-structured, highly manualised interventions may be easier for less-experienced practitioners to implement with fidelity and so should be preferred within service models involving provision of interventions by practitioners with limited training in delivering psychological interventions.

For an indicated intervention to be successfully implemented, it is important to have appropriate mechanisms to identify young people experiencing the symptoms targeted. As indicated in Table 1, the main identification strategies employed by studies included in the review were referral by school staff members, identification through screening or a combination of both strategies. A recent review (Anderson et al., 2019) of school-based identification methods concluded that universal screening may be the most effective method of identifying children experiencing mental health difficulties. However, studies included in the current review raised concerns about the sustainability of this approach for indicated programmes. Therefore, ensuring school staff members who might act as 'gatekeepers' have appropriate training

and capacity to identify students who could benefit from an indicated intervention is likely to be essential. This training must be ongoing to account for staff turnover and to ensure knowledge and skills are maintained. Since the feasibility of school-based identification of mental health difficulties was not the focus of this review, we direct interested readers to a recent review by Sonesson et al. (2020) for a fuller discussion of this issue.

While there is evidence that targeted school-based interventions have larger and more durable effects on mental health outcomes than do universal approaches (Werner-Seidler et al., 2017), concerns have been raised about potential stigma. A recent review of qualitative research found that some students are apprehensive about engaging with targeted school-based mental health interventions due to fear of negative stigma-related consequences (Gronholm, Nye, & Michelson, 2018). Stigma has also been found to be one of the most commonly reported barriers to accessing school-based treatment in quantitative research (Pella, Ginsburg, Casline, Pikulski, & Drake, 2018; Rapee et al., 2006).

Corroborating these concerns, the current review identified a number of studies that reported fear of potential stigma as a barrier to implementation. However, stigma was not universally viewed as a barrier: there was evidence that some young people view school-based interventions as less stigmatising than conventional mental health treatment and acceptability of the indicated interventions was generally reported to be high. Studies directly exploring young people's experiences of receiving school-based mental health support are scarce, however (Gronholm et al., 2018), and therefore, there is a need for further research to more fully understand acceptability.

### *Limitations*

Although studies of interventions delivered within sixth form and further education colleges were eligible for inclusion, no such studies were identified. Therefore, we are unable to reach any conclusions about how to deliver mental health support in such colleges. In the United Kingdom, colleges educate and train more than two million people each year, and over two thirds of all 16- to 18-year-olds are enrolled at a college (Association of Colleges, 2018). There are substantial differences between schools and colleges which are likely to impact implementation of mental health interventions. For instance, colleges tend to be less formal environments than schools with less-structured timetables and greater student independence. Therefore, there is a need for further research on delivery of mental health interventions within this context to inform UK policy.

The scope of the current review was limited to studies conducted in high-income countries. This was necessary to facilitate meaningful synthesis as the factors impacting implementation of interventions in low-resource contexts are likely to differ in important ways to the implementation of similar interventions in contexts in which greater resources are available. However, there are promising school-based mental health interventions delivered in low- and middle-income countries (Fazel, Patel, Patel, Thomas, & Tol, 2014) and understanding the factors that impact implementation of these interventions in these contexts is undoubtedly important.

The sensitivity analysis conducted post hoc was intended to provide an indication of whether the implementation barriers and facilitators reported differed according to the effectiveness of the interventions concerned. The results of this analysis indicate that the inclusion of studies of interventions not found to be effective did not have a substantial impact on the themes identified. However, there are several factors that complicate the interpretation of this analysis, including the use of inconsistent definitions of effectiveness across studies and lack of systematic measurement and reporting of barriers and facilitators. As such, it is not possible to draw conclusions regarding whether implementation barriers and facilitators actually differed, or infer that the presence or absence of a particular factor is linked to effectiveness.

The findings of this review must be interpreted with some caution due to the quality of the evidence regarding implementation synthesised. Although we did not formally assess the quality of included studies since this would not necessarily relate to the quality of the information on implementation, we noted that most coded sections of the text describing barriers or facilitators to implementation were author interpretation rather than objectively collected process data. Implementation is a topic that has received relatively scant attention in comparison with effectiveness, and as such, this was rarely a primary focus of eligible studies. As a result, implementation factors were often captured informally, and therefore, the data lacked richness. Future research should employ formal process evaluation and implementation of science designs. It has been argued that one of the most critical issues in mental health service research is the gap between what is known about effective treatment and what is provided in routine care (Proctor et al., 2009). If this gap is to be bridged, it is important that researchers give increased attention to factors impacting implementation and design studies accordingly, incorporating process evaluation and implementation of science approaches.

### *Implications*

The findings of this review have important implications for those with a role in planning and implementing school-based mental health initiatives (Box 1). Recent UK policy proposals include the creation of new mental health support teams (MHSTs) based within schools and colleges and the introduction of Designated Senior Leads for mental health in each setting. MHSTs will offer direct support to young people experiencing mild-to-moderate mental health difficulties, supervised by NHS mental health professionals. There is the potential for this model to offer an effective solution to the tension between fidelity and sustainability highlighted by this review; learning from the current evidence will be important to realising this potential.

Findings of this review indicate the need to ensure that the curriculum for trainee Education Mental Health Practitioners (who will work as part of the new MHSTs) is designed with input from young people and education professionals. This will help ensure the interventions this new workforce is trained to deliver are both acceptable to young people and practical to deliver within educational settings. Interventions are more likely to be implemented successfully if they are well-structured,

### **Box 1.** Recommendations for implementation of school-based interventions for adolescent emotional disorders

- Involve young people and education professionals in the selection of psychological interventions to be delivered within schools to ensure they are acceptable and practical to deliver in this context. Group interventions are efficient and often acceptable but do not meet the needs of all young people. Provision should be made for those who require individual support.
- Carefully consider the best method of identifying young people who could benefit from indicated interventions. If whole-school screening is not feasible, staff will need training and support to enable them to identify and refer suitable students.
- Ensure those delivering interventions receive high-quality training and ongoing supervision.
- Plan for the inevitable logistical challenges associated with the constraints of the school calendar, routines and environment.
- Identify an (appropriately trained and supported) intervention champion at a senior level in each school to promote buy in from other staff members and develop a school culture that prioritises mental well-being.
- Health and education policy should be designed to promote a shared focus on the emotional health of young people across sectors.

manualised and delivery by staff who receive high-quality training and supervision.

Designated Senior Leads for mental health will be well placed to encourage genuine and committed 'buy in' from all aspects of the system, including senior leaders, governors, teaching staff and parents/carers. However, changing whole-school culture is no small task. It will be important that leads are appropriately supported to fulfil this role. This might include the creation of forums for Designated Senior Leads to share good practice, and the co-production of a school and college mental health charter to support cultural change.

There is a danger that the creation of new school-based services will add further silos to an already complex and fragmented system (Frith, 2016). We must avoid this and instead use these developments as an opportunity for greater joint working and system alignment.

### **Conclusion**

Those involved in the implementation of school-based mental health interventions should ensure they select appropriate interventions, consider logistical challenges and provide high-quality training and supervision to enable staff to deliver interventions with fidelity. Further, it is important to consider the structural and environmental support required for successful implementation to ensure potential benefits are maximised.

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## Ethical approval

No ethical approval was required for this review article.

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## Supporting information

Additional Supporting Information may be found in the online version of this article:

- Table S1.** Studies contributing to each analytic theme.
- Box S1.** Example Search Strategy (Medline).

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