School of Psychology

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Mental Health Interventions in UK Secondary Schools: A systematic review and an acceptability and feasibility study of an ACT intervention delivered by school-based staff.

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Thesis Preface

The aim of this research was to review studies concerning mental health interventions which have been carried out in UK secondary schools since 2010. This research also assessed the acceptability and feasibility of training school-based professionals to deliver an intervention to secondary school students, based on the therapeutic approach of Acceptance and Commitment Therapy (ACT).

The systematic review aimed to understand the current evidence base for interventions that intend to support and improve adolescent mental health and are carried out as part of the school timetable. School-based interventions for young people can be categorised into those delivered to groups of young people who are experiencing difficulties or at risk of developing difficulties (targeted interventions), or those which are delivered to everyone regardless of need (universal interventions). Published articles from 2010 were searched across eight databases (PsycInfo, ASSIA, Scopus, Web of Science, ERIC, CINAHL, BEI and Medline), returning 1630 papers with fifteen meeting criteria for the review question.

Results highlighted the variable interventions that have been published on improving adolescent mental health and wellbeing in the UK since 2010. Ten were universally delivered and five were targeted interventions. The results reflected those of previous reviews in the UK, in that understanding the effectiveness of interventions is limited by a lack of follow-ups, with eleven studies looking at differences immediately post-intervention or three months post-intervention only. Nearly all studies reported positive improvements. However, further detail around training for those delivering the interventions, assessment of whether the interventions are delivered as intended, longer follow-ups, and consistency across studies in the measures used to assess outcomes for young people is needed from future studies.

The empirical paper describes an acceptability and feasibility study assessing training for school-based staff to deliver an ACT intervention within schools, and how well this was delivered. School-based interventions can be helpful for young people's mental health, although often studies do not report whether the intervention was delivered as planned or give minimal information. The intervention was designed to be delivered in pairs made up of one schoolteacher and one school counsellor. Facilitators attended a two-day training course and delivered the three-lesson workshop hoping to improve adolescent well-being and developing skills for psychological flexibility, based on ACT. A questionnaire assessed their satisfaction with training. Another questionnaire was developed to see whether training improved their knowledge of responding to young people in ways consistent with the principles of ACT. Changes to their own levels of psychological flexibility were measured pre-training and followed up after delivering the workshops to school students. All workshops were recorded and assessed for how many of the key intervention activities were adhered to, and whether the overall delivery was consistent with the principles of ACT.

Results indicated that the training was highly acceptable to school staff and did impact on their knowledge of responding in ways consistent with ACT. However, the measure had not been validated and is interpreted with caution. School-based staff were able to deliver the workshops with high adherence to the manual (completing between 86% and 100% of key tasks). The measure of adherence to the principles of ACT was used with good effect, with high levels of agreement when comparing the scores of two raters. The content of the workshop appeared to impact some of the scores, for instance scores relating to discussion of values were highest in the final session where this was the focus of work. Scores of psychological flexibility (an overarching aim of ACT) increased for facilitators, indicating that attending training and/or delivering interventions may have additional impacts on facilitators which is an area currently unexplored.

Overall, the review provides an update on the state of UK school-based mental health interventions. This includes the quality of such studies and how future research can address the limitations of these or add to the strength of the evidence base. Where possible, further information and resources for replicating these interventions are given. The empirical paper addresses a gap within the literature for assessing the implementation of a school-based ACT intervention and highlights the acceptability of a two-day virtual training course. The results showed that school-based staff were able to deliver the intervention with high adherence and good fidelity to the theoretical model of ACT. The research highlights how greater use of a fidelity measure across ACT interventions and establishing norms for 'high' fidelity are needed. It also gives an additional element to consider for future research in the change of a facilitator's own psychological flexibility through delivering an ACT intervention.

A systematic review of group-based targeted and universal mental health interventions in secondary schools in the UK

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Manuscript prepared in line with the author guidelines for the journal The Association for Child and Adolescent Mental Health (Appendix A), and word count guidance for DClinPsy thesis submission in 2021.

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Abstract

Background

There are increasing concerns for supporting the mental health needs of young people in the UK. Schools are well-placed to provide these interventions. The last review of targeted school-based interventions in UK schools was conducted in 2010, and universal interventions were last reviewed in 2016. This systematic review aimed to evaluate targeted and universally delivered interventions within UK secondary schools since 2010.

Method

ASSIA; British Education Index; ERIC; CINAHL; Medline; PsycInfo; Scopus and Web of Science were searched for peer-reviewed articles published between January 2010 and March 2021. Articles were included if they described universal or targeted interventions delivered within UK mainstream secondary school settings, aimed at supporting mental health and/or emotional well-being.

Results

Fifteen studies met inclusion criteria. Five were targeted interventions and ten were universal. Studies included randomised and non-randomised controlled trials, pre-post interventions and mixed methods evaluation. Interventions ranged in their theoretical approach and aims. Three targeted, and nine universal interventions, reported improved outcomes for adolescents in at least one domain. This was however inconsistent across symptom type and intervention programme. Four studies assessed outcomes beyond three months. Varying outcome measures, intervention exposure and reporting quality were found. Studies often lacked information that would aid replication.

Conclusions

Results indicate that greater consistency in design and reporting is needed, so that schools can choose an appropriate intervention. Wide variations in interventions and a lack of information in key areas make it difficult to assess whether the intervention or other factors contributed to outcomes. Additional peer-reviewed studies within the UK are needed.

Key Terms

Adolescents; Intervention; Mental Health; School; UK; Well-being

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Introduction

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Adolescence can be defined as the period from the age of 10 years old into young adulthood (Orben, Tomova & Blakemore, 2020). During this time significant biological, psychosocial and emotional changes occur, through brain development and the onset of puberty (WHO, 2020). This additionally coincides with increasing independence, changing school environments and heightened emphasis on forming social relationships and identity development (Jaworska & MacQueen, 2015). The reciprocal relationship between biological and social developments can increase the risk, or serve as protective structures, for mental health and resilience during this time (Lamblin et al., 2017). Many adolescents spend much of their time within secondary school, where interventions to support adolescent mental health and emotional well-being have been implemented (Werner-Seidler et al., 2017).

Mental Health in UK Adolescents

A recent study of 28,000 adolescents in England found that 2 in 5 scored above clinical cut offs for emotional, conduct or hyperactivity problems (Deighton et al., 2019). NHS Digital (2018) reported 9% of 11 to 15-year-olds presented with an emotional disorder and 14.9% of 17 to 19-year-olds, compared to 4.1% of 5 to 10-year-olds. There is evidence to suggest that mental health difficulties are increasing amongst young people. For example, between 2017 and 2020 rates of difficulties increased within the adolescent population from one in nine, to one in six (NHS Digital, 2020). The Good Childhood Report (The Children's Society, 2020) described data from the Programme for International Student Assessment (Organisation for Economic Co-operation and Development; OECD, 2018) which compared subjective well-being across 45 countries within Europe, plus Canada. UK 15-year-olds ranked 36th, 37th and 40th (England, Wales and Scotland

respectively). Within this 2015 to 2018 reporting period, the UK was found to have the largest increase in social inequalities for young people.

Adolescence can be a time of increased social and academic pressures. A recent national report found 15-year-olds within the UK were reporting higher fears of failure and lower life satisfaction when compared to other countries (Brooks et al., 2020). Both within and outside of school, relationships with peers are of particular importance where negative experiences can impact feelings of low mood and loneliness (Schwartz-Mette et al., 2020). The Annual Bullying Survey (Ditch the Label, 2020) collected data from over 13,000 adolescents aged 12-18 in the UK, where 1 in 4 reported being bullied within the last 12 months. Public Health England (2017a) also found a concerning number of young people may engage in self-harm. Of the 15-year-olds surveyed across England, 22% reported that they had self-harmed (32% of females and 11% of males), with the majority reporting a frequency of once a month or more.

Concerns have been raised that in the context of already declining mental health amongst young people, the Covid-19 pandemic may represent a significant additional vulnerability factor (Ford, John & Gunnell, 2021). Numerous restrictions and changes have resulted from the pandemic, such as not attending school, reductions in social contact with family and friends, and limited ability to engage in positive, protective activities such as sport. A large NHS study (Kooth, 2020) found young people, when compared to the previous year, reported increased feelings of sadness (a 128% increase), sleep difficulties (161% increase), health anxiety (133% increase), loneliness (63% increase) and self-harm (27% higher). The long-term impact of the pandemic on young people's mental health is currently unknown.

Adolescent Mental Health and the Wider Impact

Young people reporting greater well-being tend to have higher educational achievement, social connections, reduced risk-taking behaviour and greater resilience (Campion et al., 2012). Conversely, mental health difficulties in adolescents are associated with lower academic

performance (Agnafors et al., 2020) and physical health concerns (McCloughen et al., 2012). Mental health difficulties in adolescence also present a risk of persisting into adulthood. For example, a longitudinal study by Caspi et al. (2020) followed a cohort from birth to the age of 45. They found that the onset of mental health disorders (i.e., depression, anxiety, schizophrenia, ADHD) occurred by 18-years-old for 59% of those studied. Johnson et al. (2018) found significant associations between adolescent depression, and depression and anxiety in adulthood. The wider societal and financial implications of adult mental health difficulties have been well documented including missing work, reduced earning potential and greater use of health services (McDaid, Park & Wahlbeck, 2019). Together the findings support the need for early intervention.

Support for Young People

Early intervention to prevent mental health difficulties, alongside access to specialist services such as Child and Adolescent Mental Health Services (CAMHS), has been advocated to support young people's well-being and reduce the long-term economic impact on public services (Department of Health, 2015). However, accessing support can be difficult; of 338,633 referrals to CAMHS in 2017/2018, 37% were either not accepted, or discharged after a first appointment. After 12 months, 32% were still on the waiting list (Children's Commissioner, 2018). Despite increased funding since 2015 and some reductions in waiting times, there has been no change in the percentage of young people being rejected from these services (Crenna-Jennings & Hutchinson, 2020). Crenna-Jennings and Hutchinson (2020) suggest that this may be due to increased referrals and changes to the thresholds for accessing support, recommending involvement of the wider system to support these services. The Department for Education (DfE, 2018) outlined schools as well positioned to support early intervention and universal prevention approaches, as these are places where most young people attend and spend significant time. Positive perceptions of the school environment, including feeling safe and having positive relationship with staff and peers, have also been found to be potential protective factors for young people's mental health (PHE, 2017b).

In recent years, governments in England, Wales, Scotland, and Northern Ireland have provided guidance for supporting mental health within school curriculums, including the provision of targeted and universal interventions (Anna Freud, n.d.; Council for the Curriculum, Examinations & Assessment, n.d; PHE, 2021; Scottish Government, 2017; Welsh Government, 2021). There are differences across the UK as to how this may be achieved and when, although all regions are obligated to include and address emotional well-being within the curriculum (DfE, 2018). Recent government guidance in England included the designation of a mental health 'lead', and additional mental health training for school staff to support pupils (DfE, 2018; PHE, 2017b). In Wales, the Curriculum for Wales Framework outlines the mandatory requirement for all pupils to receive education on mental health and wellbeing through whole-school approaches, and targeted interventions where required (Welsh Government, 2021). This is supported by the Curriculum and Assessment (Wales) Act 2021 to redesign the Welsh curriculum, alongside assessment of these changes over the next four years.

Previous Reviews

The efficacy of school-based interventions to support emotional well-being and mental health has been assessed in various systematic reviews and meta-analyses. Of sixteen systematic reviews conducted over the last ten years, thirteen were conducted across different countries, or the US alone, and not all included the UK. The focus varied from anxiety and depression (Caldwell et al., 2019; Feiss et al., 2019; Werner-Seidler et al., 2017), resilience (Dray et al., 2017; Ma et al., 2020), mindfulness (McKeering & Hwang, 2019), economic evaluation (Schmidt et al., 2020), internalising disorders (Shelmey, Harvey & Waite, 2020), mental health promotion (O'Reilly et al., 2018), social competence (Schüller & Demetriou, 2018), 'Incredible Years' interventions (Nye, Melendez-Torres & Gardner, 2019), self-regulation (Pandey et al., 2018), Health Promoting Schools framework (Langford et al., 2014) and interventions involving the school as well as communities (García-Carrión et al., 2019).

Caldwell et al. (2019) found weak evidence for universally delivered, third-wave Cognitive

Behavioural Therapy (CBT) interventions on reducing depressive symptoms at six to twelve months,

and effects were not sustained at two years. CBT for targeted populations was found to be of

greater benefit when compared to waitlist controls, however most studies did not include long-term

follow-ups. For symptoms of anxiety, Feiss et al. (2019) reported that targeted interventions were

found to be of greater benefit than universal approaches, although highlighted that preventative

interventions are not designed for those scoring highly on clinical measures and are less likely to

result in large differences post-intervention. Interventions targeting depressive symptoms were

moderated by age, ethnicity, and intervention dosage, although insufficient data limited

understanding these mechanisms further (Feiss et al., 2019). McKeering and Hwang (2019) noted

larger effects for mindfulness-based interventions on reducing negative thinking, and smaller effects

on increasing positive thinking. A lack of reporting on treatment fidelity, appropriate data collection

points and information on the analysis of quantitative and qualitative aspects was highlighted

(McKeering & Hwang, 2019). Whilst many of the reviews looked at randomised controlled trials only,

this can be difficult within a school-based setting, potentially excluding studies with useful insight.

The above sixteen reviews were conducted across countries, with varying socioeconomic

factors, barriers to implementation within schools and differences in curriculum. Funding also differs

for additional mental health services, both within and outside of the school environment. Only two

systematic reviews have focused on mental health interventions within a UK mainstream school

setting. Cheney et al. (2014) reviewed sixteen interventions for targeted groups of pupils, published

up to 2010. Mackenzie and Williams (2018) reviewed twelve universal interventions, up to 2016.

Both studies used the Checklist for Measuring Quality (Downs & Black, 1998). Cheney et al. (2014)

reported three overall scores from sixteen papers reviewed. Mackenzie and Williams (2018)

commented only briefly on areas of study design, power, comparison groups and sample

characteristics. The quality checklist sub-defines aspects of quality including external and internal

validity, and further detail of how studies rated in terms of these specific areas may have been

beneficial. Both studies cited issues of small sample sizes, lack of intervention comparison groups, variable outcome measures and a lack of long-term follow up, in the difficulty of drawing conclusions regarding effectiveness. A limitation of existing reviews is that none have combined targeted and universal interventions within UK mainstream schools. Such a review is pertinent as, in line with recent guidance, schools may choose to implement both types of intervention to meet differing needs (DfE, 2018).

In summary, most reviews combine studies across countries which is problematic due to the variable school curriculums, funding and wider systemic context. UK guidance discusses targeted and universal interventions for emotional well-being, allowing schools to choose what best fits. Reviews for UK-based studies were carried out some time ago; Cheney et al. (2014) reported on targeted interventions carried out before 2010, and for universal interventions, up to 2016. There was a lack of detail pertaining to the quality of included studies, for instance the scores for each paper, discussion of individual elements such as methods of assessment, and important issues of fidelity and replication were not addressed. There is no review which combines targeted and universal approaches despite both being considered essential by UK guidance, where schools are likely to require a combination to meet the differing and changing needs of their pupils. Mental health awareness and priority of adolescent wellbeing has increased in recent years as reflected in published guidance. In the last few years alone, self-reported well-being of young people has additionally shifted when compared to previous UK surveys, neighbouring countries, and during the Covid-19 pandemic. Curriculums are set to change in the UK, with increased requirements for schools to incorporate emotional well-being as a core part of the curriculum, with this being mandatory in Wales from 2022 (Welsh Government, 2021). Whilst schools will be able to select approaches that feel appropriate to their students' needs, there is an emphasis on the need for evidence-based practice. A review of the evidence for universal and targeted interventions in the UK from 2010 is therefore required with additional information regarding quality of studies, and elements relating to the replicability and implementation of such interventions.

Aims of the Current Review

This review aims to address the identified gap by compiling both targeted and universally delivered mental health interventions since 2010 within UK secondary schools. The review will address the following questions:

1. How effective are secondary school-based interventions in the UK and how is the efficacy of these interventions being assessed?

2. What are the characteristics of these interventions?

3. What is the quality of reporting of these studies?

With these aims in mind, the review will describe the identified studies based on the following areas:

1. Type of mental health and wellbeing interventions (aims, theoretical underpinning).

2. Delivery of the interventions (method, sample, and facilitator characteristics).

3. Outcomes of these interventions and how they have been measured.

Method

Study Selection

The systematic review followed the Preferred Reporting Items for Systematic review and Meta-Analysis Protocols (PRISMA-P) guidelines. The protocol for this review was registered in the international prospective register of systematic reviews (PROSPERO; registration number CRD42021223942). The review set out to report the efficacy of school-based UK interventions including the study characteristics, methodology and reported barriers.

Eight electronic databases were selected based on coverage of topics relevant to the review question (ASSIA; British Education Index; ERIC; CINAHL; Medline; PsycInfo; Scopus and Web of Science).

Other Data Sources

Reference lists of identified studies were screened. Systematic reviews on mental health school-based interventions conducted across multiple countries were searched for UK-based studies.

Search Strategy

Search terms related to context (school-based setting), target area (mental health and emotional wellbeing), population (adolescence) and location (UK based schools only). Choice of databases and search terms were discussed with a university subject librarian over several meetings. Limits were placed on the year of publication (2010-2021) and to searching titles and abstracts. Boolean operators were utilised, and final terms were:

(school* OR classroom*) AND (prevent* OR intervention* OR program* OR course OR initiative*) AND (psychol* OR "mental health" OR emotion* OR resilien* OR depress* OR anxi* OR "at*risk" OR stress OR well being OR well-being OR trauma OR "adverse childhood experience*") AND (adolescen* OR child* OR youth OR "young person*" OR "young people*" OR teen* OR pupil* OR student*) AND ("UK school*" OR "United Kingdom" OR "Great Britain" OR British OR Britain OR England OR Scotland OR Wales OR "Northern Ireland" OR Scottish OR Welsh OR "Northern Irish")

Inclusion and Exclusion Criteria

Inclusion criteria were:

- Interventions carried out primarily within the school day and on school premises

- Delivered within UK schools

- Delivered in a group format (i.e. a whole year, class or group of students)

- Intended to support mental health and emotional wellbeing factors as the primary outcome

- Intervention for pupils aged 11-18 (where the mean age fell between these ages)

- Reporting quantitative data

- Peer-reviewed article

- Published from 2010

Exclusion criteria were:

- Intervention primarily aimed at physical health, substance use, health conditions or behaviour

- Reporting qualitative data only

- Where the aims or method did not meet inclusion criteria

Studies returned using the above terms were exported into EndNote. Duplicates were identified and deleted. Titles and abstracts were screened against the inclusion criteria, and a second reviewer screened 10% of papers. Full texts of 81 articles were then obtained and marked against inclusion criteria. Sixteen randomly selected articles were looked at by the second reviewer, with 100% agreement at both points. One paper provided insufficient information to inform inclusion or exclusion criteria. The author was contacted but did not respond and therefore this paper was excluded from analysis. Fifteen papers met the inclusion criteria and numbers for all stages are shown in Figure 1. The Cochrane Handbook (Higgins et al., 2021) recommends that the areas of participants, interventions and outcomes are homogeneous, to undertake a meta-analysis. Whilst some studies were found to overlap in outcome measures for instance, this was often the only overlap, with differing interventions and participants. Due to the heterogeneity and variation across studies, a meta-analysis was not carried out.

Extraction of Data

Information extracted from the included studies related to:

1. Study characteristics (design, method of allocation and randomisation, control group type)

2. Population (universal or targeted groups, sample size, age range)

3. Intervention (intervention type, aim of intervention, duration, method of delivery, facilitator characteristics, assessment of fidelity)

4. Outcome measures (primary measures, reliability, self- and/or third-party reports, data collection points and follow-up)

5. Details to support replicability as assessed by the Template for Intervention Description and Replication checklist (TIDieR; Hoffmann et al., 2014)

Assessment of Quality

The Quality Assessment Tool for Studies of Diverse Designs (QATSDD; Sirriyeh et al., 2012) was used to assess quality of the included intervention articles. The 16-item checklist is suitable for evaluating studies of various designs and methodologies. Criteria relate to the theory and area of research, recruitment and sample, data collection and analysis, user involvement, and critical discussion of the study. All 16 items are used for mixed methods studies, 14 items apply to quantitative studies and 14 items apply to qualitative studies. Sirriyeh et al. (2012) provide a brief description for each potential score on an item. Scores range from 0-3 for each item, and therefore may range from 0-42 for quantitative or qualitative papers, and 0-48 on mixed methods papers. Higher scores indicate more complete reporting and quality. All items are weighted equally. To compare across papers, a percentage is calculated based on how many points of the maximum possible score were obtained (i.e., for a quantitative paper, 21/42 = 50%). An independent rater used the tool to evaluate four of the included papers with good level of agreement (k = 0.821).

Results

Fifteen peer-reviewed articles met inclusion criteria (Figure 1) and a narrative synthesis of the data is provided below. Five of the reviewed articles were targeted interventions (Table 1) and ten were universally delivered (Table 2).

Figure 1

PRISMA Flow Diagram of Study Selection Process. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses (Page et al., 2021).

Identification

Records identified through database searching
(n = 3081)
Psycinfo 269
ASSIA 124
Scopus 595
Web of Science 587
ERIC 518
CINAHL 410
BEI 283
Medline 295

Records identified through other sources
(n = 57)

Screening

Records after duplicates (n = 1508) removed (n =1630)

Records screened
(n = 1630)

Records excluded
(n = 1549)

Eligibility

Full-text articles assessed for eligibility
(n = 81)

Full-text articles excluded, with reasons
1:1 intervention: 1
Age outside inclusion criteria: 11
Insufficient information: 1
Non-UK sample: 1
Not peer-reviewed: 6
Not reporting empirical data: 17
Outside school hours: 1
Primary intervention not for mental health: 25
Qualitative data only: 3

Included

Studies included in quantitative synthesis
(n = 15)

Table 2

Characteristics of targeted intervention studies

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcome
Brown et al. (2019)	London, England	Feasibility two-arm cluster randomised controlled trial. Control: Waitlist.	Ten schools. 16-19 years Intervention: (n=72) Control: (n=83)	CBT workshop ("DISCOVER – How to Handle Stress"): Coping with personal and academic stressors including anxiety, coursework, family pressures. CBT psychoeducation, mindfulness, thought challenging, sleep hygiene, time management and problem solving. Video vignettes, workbooks and demonstrations of techniques supported the workshop.	One-day. Telephone follow ups of 20-30 minutes were offered one week later, and at two more points within a 12-week follow-up period. Delivered by 2 clinical psychologists and 1 assistant psychologist.	Depression: MFQ Anxiety: RCADS -anxiety subscale Emotional: RCADS full scale Well-Being: PQ-LES-Q and WEMWBS Baseline and 3-month follow-up.	Pre-, post-intervention comparison; Mean(SD) Improvements for: Depression* 20.3(11.9) vs 14.8(8.9); d = 0.27 Anxiety* 51.1(12.9) vs 45.2(10.8); d = 0.25 Quality of life** 0.6(0.1) vs 0.7(0.1); d = 0.36 Emotional symptoms* 51.7(12.9) vs 45.4(10.9); d = 0.28 Well-being** 42.9(8.1) vs 47.5(8.3); d = 0.46

Table 2 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Chiumento et al. (2018)	North West England	Mixed methods pre- post-design within subjects. Control: None.	One school. 11-15 years. Intervention: (N=11).	Five Ways in Haven Green Space: Designing a greenspace at school. Five main aspects covering; Connect (to those around you and the natural environment), Be Active (engage in enjoyable physical activity), Take Notice (of the world around you and of your feelings), Keep Learning (to build confidence and have fun), Give (do something nice for a friend or stranger linking with the wider community).	Two-hour lessons, once a month over six months. Two horticulturists, and a CAMH psychotherapist with existing relationship to schools.	Wellbeing check cards, MWIA; Completed over 2 hours as a group, qualitatively assessed. Other measures completed but not reported on. Pre- and post-intervention.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Wellbeing M = 28 vs M = 31[a].

Table 2 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Pluess et al. (2017)	East London, England	Mixed methods, two cohort non-randomised trial. Control: PSHE lessons as usual.	One school. 11-13 years (females) Intervention: 11-12 years (n=230). Control: 12-13 years (n=208).	SPARK resilience programme; Situation, Perception, Autopilot, Reaction and Knowledge using active CBT components. Hypothetical situations; noticing reactions and knowledge gained from experiences. Cognitive distortions, modifications and skills of assertiveness and problem solving. Students discuss 'resilience muscles' e.g., social supports and reflection of previous resilience and self-efficacy. Workbook provided.	Twelve sessions over 3-4 months. Teachers trained in the approach over two days and given a guidebook with session curriculum, DVDs of videos and presentation slides, session props.	Resilience: RS Depression: CESD Pre- post- intervention, 6- and 12-month follow-up.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Resilience** 120.59(25.95) vs 125.92(27.31); d = .31 *Decreased* at 6 months* 123.18(26.49) *Increased* at 12 months** 123.92(27.43) Depression* 17.53(8.28) vs 16.30(9.25); d = -.20 At six months* 16.20(9.28); d = .-25 *Decreased a*t 12 months 17.20(10.55)

Table 2 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcome
Stallard et al. (2012)	East Midlands and South West England	Cluster randomised controlled trial. Control: Attention control; Lessons as usual.	Eight schools. 12-16 years Intervention: (n=296). Attention control: (n=308). Usual school provision: (n=242).	Resourceful adolescent programme (based on CBT principles). Aims to address coping, thinking styles and emotion-regulation strategies.	Nine modules and two booster sessions, 50-60 minutes each, over the academic year. Intervention: Two trained facilitators and schoolteacher. Facilitators received ongoing supervision. Attention control: Two facilitators and schoolteacher delivered PHSE lessons.	Depression: SMFQ Negative thinking: CATS, personal failure subscale Self-worth and acceptance: RSE Anxiety: RCADS, anxiety subscale Feeling valued in school: PSSM Additional measures included extent of bullying, alcohol consumption, drug use, thoughts and actions of self-harm. Baseline, 6- and 12-month follow-up.	Post-intervention comparison across arms (Intervention, AC, TAU); Mean(SD). Changes for: Depression 8.22(6.45) vs 6.81(5.70) vs 8.50(5.88) Negative thinking 8.18(10.48) vs 10.48(10.00) vs 10.63(9.94) Self-worth 17.39(5.34) vs 16.93(5.65) vs 16.68(5.25) Anxiety 4.67(3.05) vs 5.18(3.12) vs 5.40(2.91)

Table 2 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Weeks et al. (2017)	England	Mixed methods non-randomised trial. Control: Lessons as usual, received treatment after follow-up.	One school. 11-14 years (females). Intervention (n=19). Comparison (n=9).	Bespoke intervention, informed primarily by two other CBT interventions (Cool Connections with Cognitive Behaviour Therapy, and Anxiety: Cognitive Behaviour Therapy with Children and Young People).	Six lessons, weekly. Education psychologist (developer of intervention) and teaching assistant.	Anxiety: SCAS Negative thoughts: CATS Mood: SDQ Teacher report of anxiety: SAS-TR (pre-intervention) Pre- and post-intervention.	Pre-, post-intervention comparison. No significant differences across measures. Means and standard deviations not provided post-intervention.

Note. * significant at p<0.05 level

* significant at p<0.01 level

[a] Means and/or standard deviations not reported

AC, Attention control; CAMH, Child and Adolescent Mental Health; CATS, Children's Automatic Thoughts Scale; CESD, Centre for Epidemiologic Studies Depression Scale; MWIA, Mental Well Being Impact Assessment; MFQ, Mood and Feeling Questionnaire; PQ-LES, Paediatric Quality of Life Enjoyment and Satisfaction; PSSM, Psychological Sense of School Membership; RCADS, Revised Child Anxiety and Depression Scale; RS, Resilience Scale; RSE, Rosenberg Self Esteem Scale; SAS-TR, School Anxiety Scale – Teacher Report; SCAS,SDQ, Strengths and Difficulties Questionnaire; Spence Children's Anxiety Scale; SMFQ, Short Mood and Feelings Questionnaire; TAU, Treatment/Lessons as usual; Wellbeing check cards, a local tool based upon the 7-item Warwick Edinburgh Mental Well-being Scale; WEMWBS, Warwick-Edinburgh Mental Well-Being Scale.

Table 3

Characteristics of universal intervention studies

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Boniwell et al. (2016)	South-East London	Non-randomised pre- post-design, mixed methods. Control: PSHE lessons as usual, separate school.	Two schools. 11-12 years Intervention: (n=96). Control: (n=68).	Personal Well-Being Lesson scripted curriculum, covering the "scientific basis of happiness" focusing on positive emotions/experiences and positive relationships. Lessons involve introducing concepts, skills, role-plays and hands-on activities. Evidence-base for these provided in teacher scripts. Delivered through PowerPoint presentations, student handouts and student well-being diaries. Whole-school approach supported by discussions with management team, presentation to all staff during a staff training day, optional workshops to teachers and optional presentations advertised to all parents.	Eighteen lessons, fortnightly. Teachers. Five days of training; two days on 'adult well-being skills' and three on teaching these skills.	Life satisfaction: SLSS and MSLSS Emotional symptoms: PANAS-C Pre- and post-intervention.	Intervention vs Control comparison; Mean(SD). Changes for: Life Satisfaction Self**: 4.79(0.69) vs 4.94(0.68) School*: 3.99(0.98) vs 4.35(0.89) Friends**: 5.19(0.79) vs 5.06(0.83) Negative affect** 1.50(0.42) vs 1.82(0.66); d = .54

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Challen et al. (2014)	England	Non-randomised trial. Control: Lessons as usual.	16 secondary schools consisting of 78 workshop groups. 11-12 years Intervention: (n = 1000). Control: (n = 1844).	UK Resilience Program (UKRP) aiming to build resilience and promote realistic thinking and adaptive coping. Both cognitive-behavioural and problem-solving skills covered, including challenging thoughts and beliefs, assertiveness, negotiation, decision making and relation. Discussions, worksheets, and games were part of the workshops.	Eighteen hours over 4-8 months. Recommended up to 15 pupils per group. Teachers: Training not specified	Depression: CDI Anxiety: RCMAS Baseline, post-intervention, 12- and 24-month follow-up.	Intervention vs Control comparison; Mean(SD). Improvement for: Depression* 8.16(7.27) vs 8.32(7.21) Not sustained at 24 months: 7.95(7.74) vs 7.34(6.98) No significant effect found for anxiety or behavioural measures at any time.

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Eisenstein et al. (2019)	England and Channel Islands, UK	Pre- and post- within subjects design. Control: None.	Seven schools, London or South-East England (n=6) and the Channel Islands (n=1). 11-12 years Intervention: (N=455).	Developed based on a literature review of mental health education for school-aged children. Five areas covered; Myths, Facts and Stigma, Staying Well, Getting Help, and Helping Others. Assessed in a mixed methods feasibility study, qualitative feedback informed the revised syllabus. Additional worksheets and workbooks were given to students, plus information about mental health.	Five 40-minute lessons. Delivered by pairs of peer mentors, supported by school staff.	Emotional and behavioural difficulties: M&MS School climate: SCS Bespoke questionnaire around key skills, key terms, confidence to talk about mental health, knowledge of information and resources, readiness to support others and general feedback. Pre- and post-intervention.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Emotional difficulties**: M = 6 vs M = 5.7[a] d = .09 School climate**: M = 9.3 vs M = 8.8[a] d = .21 77 pupils scored above cut-off pre-intervention, 38% (n=29) moved to "normal" range post-intervention.
Huppert and Johnson (2010)	UK	Non-randomised trial. Control: Lessons as usual.	Two all-male private schools. 14 - 15 years. Intervention: (n = 78). Control: (n = 56).	Mindfulness based intervention based on a programme developed by Kabat-Zinn and colleagues. These lessons covered the overall principles of mindfulness including awareness, acceptance, and mindful practices of bodily awareness, sounds and breathing. Videos were used to demonstrate practical value. A CD with three mindfulness exercises to complete outside of the classroom were given.	Four 40-minute lessons, weekly. Religious education teachers who practiced mindfulness and expressed interest in developing pupils' practice.	Resilience: ERS Well-being: WEMWBS Mindfulness: CAMS-R Personality: TIPI Baseline and one-week post-intervention.	Intervention vs Control comparison. Improvement for: Wellbeing*[a]

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Kuyken et al. (2013)	UK	Non-randomised controlled trial. Control: Lessons as usual.	Twelve schools of varying type. 12-16 years. Intervention: (n = 256). Control: (n = 266).	Mindfulness in Schools Programme (MiSP); Developed over four years with teacher and student feedback. Developed in line with mindfulness-based stress reduction, mindfulness-based cognitive therapy and reviews of school-based mental health and wellbeing programmes. Explicit teaching of skills and attitudes using interactive and experiential methods. Course booklet and CD or audio files with exercises.	Nine lessons. Teachers who had received training or were involved with programme development. All taught the programme for a minimum of one year.	Wellbeing: WEMBWS Mental Health: PSS Depression: CES-D Mindfulness practice using five questions. Pre-, post-intervention and 2 - 3-month follow-up.	Intervention vs Control comparison; Mean(SD): Depression** 14.3 (3.5) vs 15.4 (4.0) At 3 months** 14.6(3.7) vs 15.6(4.6) Wellbeing 50.1(7.7) vs 48.8(8.6) At 3 months* 50.0(7.9) vs 48.7(10.0) Stress 17.4(3.8) vs 16.8(4.7) At 3 months* 17.1(6.2) vs 17.7(7.2) Impact of practice on scores of well-being** and stress*.

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Platt et. al. (2020)	North West England	Pre- and post- within subjects. Control: None.	Fourteen schools. 11-18 years. Intervention: (n=1054).	Positive Psychology Intervention; Covering happiness, resilience, character strengths, hope, growth mindsets, gratitude, and mindfulness. Workbook to support students.	Eight lessons. Single researcher supported by undergraduate and MSc psychology students.	Well-Being: WHO-5 Hope: CHS Academic resilience: BUSS Pre- and post-intervention.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Wellbeing* 12.47(5.43) vs 12.94(5.95) Hope** 20.32(6.76) vs 21.64(6.89) Resilience** 36.63(7.03) vs 37.23(6.44)
Proctor et al. (2011)	Cheshire, and Channel Islands UK	Non-randomised trial. Control: Lessons as usual.	Two schools. 12-14 years. Intervention: (n=218). Control: (n=101).	Strengths-Gym based on positive psychology principles and the 'Values In Action' classification. Discussions, activities ('Strengths Builders' and 'Strengths Challenges') and real-work activities to apply this practically. Exercises differ across year group though intended to be equivalent and age appropriate. Exercises were allowed to be flexible i.e., students to complete alone on in groups depending flexibly based teacher choice. Workbooks and handouts on character strengths for students, principles of the programme and aims of the 'builder' and 'challenges' exercises for facilitators.	Twenty-four sessions to be completed in minutes as a group, or as a whole lesson, over six months. Teacher delivered.	Well-being: SLSS Affect: PANAS Self-Esteem: RSE Life satisfaction: SLSS Pre- and post-intervention.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Life satisfaction*, wellbeing, self-esteem, positive affect*, and negative affect[a.]

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Punukollu et al. (2020)	Scotland	Mixed-methods within subjects. Control: None.	One school. 11-17 years Intervention: (n=72).	SafeSpot intervention to promote resilience and wellbeing through awareness of mental health and coping strategies. Includes peer support through older pupils during lunchtime drop-ins. A mobile application gave personalised coping strategies, audio relaxation, access to a safety plan, contacts for crisis services and a social media stream for mental health awareness.	Within PHSE lessons. Teacher delivered.	Mood: HADS Distress: COD Pre-intervention and 3-month follow-up.	Pre-, post-intervention comparison; Mean(SD). Improvement for: Mood: 10.70(6.20 vs 9.0(5.21) 18% (n=13) showed a significant change from "clinical" to "low" or "borderline" change.
Rice et al. (2015)	South East of England	Non-randomised longitudinal. Three intervention conditions. Control: Lessons as usual.	Three schools; separate intervention in each. 13-14 years. Intervention: TRY (n=50), CBT (n=53), MBCT (n=54). PHSE (n=99 over three schools).	Three manualised interventions, all developed for the study based around: 1. Thinking about Reward in Young people (TRY): CBT and behavioural activation, focusing on reward processing. 2.Cognitive Behaviour Therapy (CBT). 3. Mindfulness-Based Cognitive Therapy (MBCT).	Weekly, 50 minutes during PSHE lessons. Educational Psychologists delivered.	Mood: MFQ Attitudes: DASC Baseline and nine-week follow-up.	Post-intervention comparison across arms (TRY, MBCT, CBT, TAU); Mean(SD). Changes for: Depression TRY*; 3.79(5.09) MBCT*; 6.46(6.09) CBT; 5.29(5.72) TAU; 4.93(4.77)

Table 3 continued.

Author	Location/ Country	Study Design	Sample	Intervention	Delivery and Facilitators	Measures and Collection Time Points	Quantitative Outcomes
Wigels-worth et al (2013)	England	Non-randomised quasi-experimental trial. Control: Schools not involved in SEAL (curriculum as usual).	41 secondary schools. 11-12 years. Intervention: (n=2442). Control: (n=2001).	Social and Emotional Aspects of Learning (SEAL) programme. Whole-school approach promoting mental health and well-being. Assemblies, class exercises and prompts to involve the wider community are included. Four key components of: School ethos, direct teaching of skills (social skills and empathy, managing feelings and motivation), creating a supportive classroom environment and continued staff development. Flexibility in components chosen sees variability in implementation.	Whole-school approach with classroom activities. Teachers and teaching assistants delivered.	Emotional and behavioural difficulties: SDQ Two-year follow-up.	Pre-, post-intervention comparison of high-risk pupils; Mean(SD). Emotional symptoms: 5.16(2.36) vs 5.31(2.50) Behavioural symptoms: 3.67(1.91) vs 3.97(2.09)

Note. * significant at the p<0.05 level
** significant at the p<0.01 level
a means and/or standard deviations not reported.
BUSS, Bolton-Uni Stride Scale; CAMS-R, Cognitive and Affective Mindfulness Scale Revised; CDI, Child Depression Inventory; CES-D, Centre for Epidemiologic Studies Depression Scale; CHS, Children's Hope Scale; COD, Mitchell-Punukollu Causes of Distress Scale; DASC, Dysfunctional Attitudes Scale for Children; ERS, Ego-Resiliency Scale; HADS, Hospital Anxiety and Depression Scale; M&MS, Me and My School Questionnaire; MSLSS, Multidimensional Students' Life Satisfaction Scale; PANAS-C, Positive and Negative Affect Schedule for Children; PSS, Perceived Stress Scale; RCMAS, Revised Children's Manifest Anxiety Scale; RSE, Rosenberg Self-Esteem Scale; SCS, School Climate Survey; SDQ, Strengths and Difficulties Questionnaire; SLSS, Students Life Satisfaction Scale; TIPI, Ten-Item Personality Inventory; WEMWBS, Warwick Edinburgh Mental Well Being Scale; WHO-5, World-Health Organisation-Five.

Table 4.

Quality Assessment Scores for Targeted and Universal Intervention Studies Using the Quality Assessment Tool for Studies of Diverse Designs (QATSDD)

QATSDD Item	Targeted					Universal									
	Brown et al. (2019)	Chium-ento et al. (2018)	Pleuss et al. (2017)	Stallard et al. (2012)	Weeks et al. (2017)	Boniw-ell et al. (2016)	Challen et al. (2014)	Eisenst ein et al. (2019)	Hupp-ert and John-son (2010)	Kuyken et al. (2013)	Platt et al. (2020)	Proctor et al. (2011)	Punuk-ollu et al. (2020)	Rice et al. (2015)	Wigel-sworth et al. (2013)
Explicit theoretical framework	3	3	3	3	3	3	3	2	3	1	3	3	1	2	3
Statement of aims/objectives in main body of report	3	3	2	2	3	3	2	3	2	3	3	3	3	3	2
Clear description of research setting	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Evidence of sample size considered in terms of analysis	3	1	0	3	1	0	3	0	0	0	0	0	0	0	3
Representative sample of target group of a reasonable size	2	1	2	3	1	1	2	3	1	2	0	3	2	1	3
Description of procedure for data collection	3	3	3	3	2	1	3	2	3	3	3	2	3	3	3
Rationale for choice of data collection tool(s)	3	2	3	1	3	1	3	3	3	3	3	3	3	2	3
Detailed recruitment data	3	1	3	2	3	3	3	2	2	2	1	2	2	2	1
Statistical assessment of reliability and validity of measurement tool(s) (Quantitaive only)	1	0	2	0	0	3	1	1	2	1	1	2	3	2	0

Table 4 continued.

QATSDD Item	Targeted					Universal									
	Brown et al. (2019)	Chium-ento et al. (2018)	Pleuss et al. (2017)	Stallard et al. (2012)	Weeks et al. (2017)	Boniwell et al. (2016)	Challen et al. (2014)	Eisenstein et al. (2019)	Hupp-ert and John-son (2010)	Kuyken et al. (2013)	Platt et al. (2020)	Proctor et al. (2011)	Punu-kollu et al. (2020)	Rice et al. (2015)	Wigel-sworth et al. (2013)
Fit between stated research question and method of data collection (Quantitative only)	3	2	3	3	2	3	3	2	3	3	2	3	1	2	3
Fit between stated research question and format and content of data collection tool e.g. interview schedule (Qualitative only)	N/a	2	2	N/a	2	2	N/a	N/a	N/a	N/a	N/a	N/a	1	N/a	N/a
Fit between research question and method of analysis (Quantitative only)	3	2	2	3	3	2	2	2	2	2	2	3	2	2	3
Good justification for analytic method selected	2	0	3	2	1	2	3	3	2	2	3	3	3	2	3
Assessment of reliability of analytic process (Qualitative only)	N/a	2	2	N/a	0	0	N/a	N/a	N/a	N/a	N/a	N/a	1	N/a	N/a
Evidence of user involvement in design	3	0	0	0	0	1	0	3	0	2	2	0	0	0	1
Strengths and limitations critically discussed	2	3	3	2	2	1	2	2	2	3	2	3	2	1	2
Percentage Score	**37/42 88%**	**28/48 58%**	**36/42 86%**	**30/42 71%**	**29/48 60%**	**29/48 60%**	**33/42 79%**	**31/42 74%**	**28/42 67%**	**30/42 71%**	**28/42 67%**	**33/42 79%**	**30/48 63%**	**25/42 60%**	**33/42 79%**

Note. Scores are given from 0-3, with higher scores indicating more complete reporting.

Table 5

Significant changes on primary outcome measures of mental health and wellbeing, for targeted interventions

Author	Primary Aim	Depression	Anxiety	Emotional Difficulties	Life Satisfaction	Behavioural Difficulties	Quality of Life	Wellbeing	Resilience	Mindfulness
Brown et al. (2019)	Depressive and anxious symptoms	⬆	⬆	⬆			⬆	⬆		
Chiumento et al. (2018)	Wellbeing							⬌		
Pluess et al. (2017)	Depressive symptoms and resilience	⬆							⬆	
Stallard et al. (2012)	Depressive symptoms	⬌	⬌						⬌	
Weeks et al. (2017)	Anxious symptoms		⬌	⬌						

Outcomes Assessed for Mental Health and Wellbeing [a]

[a] *Positive or negative changes post-intervention include significant results only*

Table 6

Significant changes on primary outcome measures of mental health and wellbeing, for universal interventions

Author	Primary Aim	Outcomes Assessed for Mental Health and Wellbeing [a]								
		Depression	Anxiety	Emotional Difficulties	Life Satisfaction	Behavioural Difficulties	Quality of Life	Wellbeing	Resilience	Mindfulness
Boniwell et al. (2016)	Wellbeing			↑	↑					
Challen et al. (2014)	Depressive symptoms	↑		↔		↔				
Eisenstein et al. (2019)	Mental health			↑		↔				
Huppert and Johnson (2010)	Wellbeing							↑	↔	↔
Kuyken et al. (2013)	Mental health	↑		↑				↑		
Platt et. al. (2020)	Improve wellbeing							↑	↑	
Proctor et al. (2011)	Life satisfaction and wellbeing			↔	↑			↔		
Punukollu et al. (2020)	Emotional distress			↔						
Rice et al. (2015)	Depressive symptoms	TRY: ↑ CBT: ↔ MBCT: ↓								
Wigels-worth et al (2013)	Emotional and behavioural difficulties			↔		↔				

Overall Quality Across Universal and Targeted Interventions

In the last ten years, a range of school-based interventions for mental health have been published. However, given the increased focus on mental health and school intervention in the UK, the number of peer-reviewed studies is low. The reviewed studies varied greatly in their theoretical approach and the area of wellbeing aiming to support. A lack of consistency in how implementation and outcomes were assessed limit the replicability and comparisons of such studies. There were largely no long-term follow up points or active control groups which limit conclusions of effectiveness.

Details regarding recruitment of schools, pupils, and attrition rates inclusive of sample characteristics was insufficient in many studies. Mixed-methods studies would especially benefit from more detailed reporting on interviews and analysis. Positive outcomes were noted across studies. Through flexibility in intervention exposure, a lack of formal checks on exposure given and on adherence, there was an evident gap in knowledge of what dosage may be required to facilitate change.

Areas consistently weakest across study types were recruitment, attrition, procedural elements, sample characteristics, evidence of user involvement in design and the information given around qualitative methods. Targeted intervention papers critically discussed more aspects of their study design, analysis, sample and key strengths and weaknesses. Overall, studies were inconsistent in their reporting and whilst positive comparisons were seen in the majority, omission of the above details and checks limits possible conclusions.

Effectiveness of Interventions

Three targeted, and nine universal, intervention studies reported some improvement in at least one domain measured, or comparatively worse scores for those in control groups compared to baseline (excluding targeted interventions Stallard et al., 2012; Weeks et al., 2017, and universal intervention Wigelsworth et al., 2013). Only two targeted interventions (Pluess et al., 2017; Stallard

et al., 2012) reported long term follow ups although used different outcome measures. Pluess et al. (2017) reported on active CBT and found sustained improvements for resilience but not depression. Stallard et al. discussed the CBT based resourceful adolescent programme and found worse outcomes for depression at 12 months. The authors discussed whether greater awareness post-intervention underpinned this effect. Pluess et al. (2017) utilised a resilience programme with active CBT components and Stallard et al. used a traditional CBT intervention. Of targeted interventions, both Brown et al. (2019) and Pluess et al. (2017) scored well on overall quality (88% and 86% respectively). Brown et al. (2019) demonstrated good effect sizes (d = 0.25 to 0.46) at a three-month follow-up. Pluess et al. (2017) showed improvements in resilience scores at 12 months. Whilst depressive symptoms had sustained an improvement at 6 months (d = 0.20), this was not found at 12 months although the control group scored significantly worse compared to baseline.

The two universal studies to not find sustained or improved outcomes (Challen et al., 2014; Wigelsworth et al., 2013) were the only ones to report on outcomes beyond a three-month period. The three interventions reporting up until three months all demonstrated improvements at the final timepoint on various measures of well-being (Kuyken et al., 2013; QATSDD score 71%), mood (Punukollu et al., 2020; QATSDD score 63%) and depressive symptoms in one intervention only (TRY; Rice et al., 2015; QATSDD score 60%). This is interesting given that students in universal interventions are likely to score within non-clinical ranges of outcome measures and therefore hold less scope for improvements to be seen (Mackenzie & Williams, 2018). The use of controls in seven of the ten universal studies reviewed however do help to support their effectiveness, although scores were low generally and similar to study controls (Table 3). However, there was a lack of long-term follow up across most studies. If universal interventions aim to reduce the risk of developing difficulties, comparisons with the control cohort overtime would support the testing of these interventions and their preventative efficacy.

Quality Assessment

The Quality Assessment Tool for Studies of Diverse Designs (QATSDD; Sirriyeh et al., 2012) was used to rate studies as shown in Table 4. For targeted interventions, overall scores ranged from 58% to 88% (*M* = 72.6, *SD* = 12.58) with two papers scoring above 80% (Brown et al., 2019; Pluess et al., 2017) and one below 60% (Chiumento et al., 2018). Across the ten universal intervention papers, scores ranged from 60% to 79% (*M* = 69.90, *SD* = 7.26). Five studies scored above 70% (Challen et al., 2014; Eisenstein et al., 2019; Kuyken et al., 2013; Proctor et al, 2011; Wigelsworth et al., 2013) and two scored 60% (Boniwell et al., 2016; Rice et al., 2015). Additional details regarding quality are given in the relevant sections pertaining to assessment of intervention design and analysis.

Study Characteristics

Study design

Characteristics of included articles are detailed in Table 1 and Table 2. Of the targeted interventions, two were randomised control trials (Brown et al., 2019; Stallard et al., 2012) and three were non-randomised (Chiumento et al., 2018; Pluess et al., 2017; Weeks et al., 2017). All three non-randomised studies utilised a mixed methods approach. Chiumento et al. (2018) was the only targeted intervention that did not include a comparison group. Brown et al. (2019) used a waitlist comparison who were subsequently given the intervention. Stallard et al. (2012) used an attentional control, plus lessons as usual.

Evidence of service user involvement within targeted intervention studies was only reported in Brown et al. (2019) where the intervention was co-produced with adolescents. Five universal interventions had some degree of service user involvement (Boniwell et al., 2016; Eisenstein et al., 2019; Kuyken et al., 2013; Platt et al., 2020; Wigelsworth et al., 2013). Eisenstein et al. (2019) held co-production sessions with adolescents and Kuyken et al. (2013) had devised the intervention over four years with 200 teachers and over 2,000 young people but did not detail how students had been

involved in these changes. Boniwell et al. (2016) stated teacher involvement but gave no further information.

Scores were variable on demonstrating a representative sample of the target population. For a representative sample to be shown, both details of the target population and demographic data were needed. Two targeted intervention studies did not give moderate or complete information to assess this (Chiumento et al., 2018; Weeks et al., 2017) and neither did four universal studies (Boniwell et al., 2016; Huppert and Johnson, 2010; Platt et al., 2020; Rice et al., 2015).

Sample Size

Only two targeted interventions gave explicit consideration of the sample size required for their analysis to be sufficiently powered (Brown et al., 2019; Stallard et al., 2012), and two universal interventions (Challen et al., 2014; Wigelsworth et al., 2013). Of all fifteen studies, nine did not report any information for this area (60%) and two demonstrated some consideration such as acknowledging the limitations of a small sample (Chiumento et al., 2018; Weeks et al., 2017). Several studies were piloting interventions which may have impacted their inclusion of such details (Brown et al., 2019, Chiumento et al., 2018, Boniwell et al., 2016, Kuyken et al., 2013, Punukollu et al., 2020).

Information on recruitment including method were largely good with only two papers missing substantial information, namely on attrition (Chiumento et al., 2018; Platt et al., 2020). Complete information was reported by five papers, three targeted interventions (Brown et al., 2019; Pluess et al., 2017; Weeks et al., 2017) and two universal studies (Boniwell et al., 2016; Challen et al., 2014). These included the number originally recruited and those who did not return measures, with additional information such as differences in demographic data where possible. Only Brown et al. (2019) recruited through self-referral or students encouraged by their teachers and was facilitated with the oldest age group reviewed in this paper (sixth form students). Most of the studies gathered limited demographic data at baseline which may have provided insight into discrepancies between intervention and control participants in the rates of attrition and whether samples were significantly

different in these areas. Proctor et al. (2011) cited a failure of some teachers to hand out questionnaires as a large part of attrition, while Eisenstein et al. (2019) reported that 53% of students returned both the pre-, and post-intervention questionnaires (n = 455) although it is unclear what factors may have contributed to this.

Data Collection

Complete information was recorded if there were explicit details for each stage of gathering data and how this was done, such as giving paper questionnaires at the end of an intervention lesson or who facilitated data collection. All but one targeted intervention fulfilled this. Weeks et al. (2017) gave moderate information which included when measures were completed, who completed a focus group, and not contacting comparison group, but did not detail how measures were administered or collected and whether researchers or school staff were part of this process. Universal intervention studies were generally awarded the highest score although Eisenstein et al. (2019) and Proctor et al. (2013) required additional information in the above areas, with Boniwell et al. (2016) giving minimal details.

Types of Intervention

Interventions aimed to prevent worsening emotional symptoms, or to promote and improve well-being, resilience, and mindfulness. Four out of five targeted interventions were underpinned by CBT principles. Universal interventions showed wider variability and greater focus on positive psychology and mindfulness theories. All targeted intervention studies reported an explicit theoretical framework. Pluess et al. (2017) and Stallard et al. (2012) gave broad aims and objectives, while the other targeted interventions reported explicit objectives within the body of the paper. Two universal intervention papers provided limited reference to the theoretical framework (Kuyken et al., 2013; Punukollu et al., 2020). Details of aims and objectives were broad, but not explicit, in Challen et al. (2014), Huppert and Johnson (2010) and Wigelsworth et al. (2013) and all others were explicit.

Of the four targeted interventions using CBT principles, these were targeting stress management and anxiety (Brown et al., 2019; Weeks et al., 2017), coping and regulation (Stallard et al., 2012) and resilience (Pluess et al., 2017). Chiumento et al. (2018) drew on ideas from therapeutic horticulture, attention restoration and stress reduction theories, focusing on well-being for those with emotional, social and behavioural difficulties. Of the ten universally delivered interventions, positive psychology theories underpinned three of these (Boniwell et al., 2016; Platt et al., 2020; Proctor et al., 2011) and mindfulness two (Huppert & Johnson, 2010; Kuyken, et al., 2013). One was underpinned by cognitive behavioural and social problem-solving (Challen et al., 2014) and another by social and emotional aspects of learning (SEAL; Wigelsworth et al., 2013). Rice et al. (2015) compared three interventions of Mindfulness-Based Cognitive Therapy, CBT focusing on reward processing and behavioural activation, and traditional CBT. Eisenstein et al. (2019) drew on mental health education and peer support literature. One article was unclear (Punukollu et al., 2020).

Facilitator Characteristics

Two of the targeted interventions involved schoolteachers (Pluess et al., 2017; Stallard et al., 2012). Pluess et al. (2017) provided two days of training with a guidebook and curriculum materials. Stallard et al. (2012) imply that external facilitators delivered the intervention and received training and supervision, while teachers supported classroom management. However, the extent of teacher involvement was not reported. Interventions were otherwise delivered by programme developers or trained allied health professionals (Brown et al., 2019; Chiumento et al., 2018; Weeks et al., 2017).

Training for facilitators of universal interventions ranged from two days for peer educators (Eisenstein, 2019), and for teachers, five days (Boniwell et al., 2016) to ten days (Challen et al., 2014). Kuyken et al. (2013) delivered the mindfulness intervention through teachers who had either helped to develop the programme or were given training. Numbers in each group and length of training was not detailed. One intervention was facilitated by an educational psychologist with

additional training (Rice et al., 2015). Five studies did not report on training (Huppert & Johnson, 2010; Platt et al., 2020; Proctor et al., 2011; Punukollu et al., 2020; Wigelsworth et al., 2013).

Intervention Exposure

Of targeted interventions, exposure ranged from weekly sessions for six weeks (Weeks et al., 2017) to twelve hours of intervention over four months (Pluess et al., 2017) or six months (Chiumento et al., 2018). Brown et al. (2019) was conducted over a one full day. While all took place within the school, Chiumento et al. (2018) facilitated the intervention in a horticultural school space.

Universal interventions varied from four 40-minute sessions, once per week (Huppert and Johnson, 2010) to 24 sessions over six months (Proctor et al., 2011). Proctor et al. (2011) detailed that the activities could be flexible in length and estimated 50% of lessons would be carried out (see *Fidelity)*. Wigelsworth et al. (2013) evaluated a whole-school approach which was also problematic in quantifying exposure. Boniwell et al. (2016) and Challen et al. (2014) both delivered 18 lessons of intervention. Boniwell et al. (2016) reported these as fortnightly, and Challen et al. (2014) cited curriculum and timetabling differences across schools, with variable frequency (i.e., 18 hours of lessons could be split into twelve 90-minute lessons).

Fidelity

Three of five targeted interventions reported details regarding fidelity which was mostly described in terms of completed manualised components. Brown et al. (2019) asked workshop facilitators to rate if tasks were delivered. Pluess et al. (2017) observed a subset of teachers on completed tasks and children's engagement but was not formally assessed. Stallard et al. (2012) report scoring whether core tasks were covered in 5% (n=36) of provided classes. None reported results in terms of the extent to which facilitators were faithful to the content.

Three of ten universal interventions reported details of assessing implementation. Challen et al. (2014) used a quality score for each facilitator based on whether the number of pupils in a

workshop exceeded guidance, how many hours were dedicated to the workshops compared to the

minimum hours required, and scores given by the trainers on their impressions of workshop

facilitators during training. Rice et al. (2015) stated facilitators received supervision to aid fidelity.

Supplementary information stated an independent rater assessed adherence of 'early', and 'late',

intervention sessions although how many were rated was not reported. A checklist was created for

this assessment across adherence, and facilitator and adolescent engagement although items were

not reported. Proctor et al. (2011) reported that teachers recorded completion of the 24 lessons

outlined, with a range of 3-12 lessons completed within the six-month period. This was not

expanded on with respect to impact on outcomes or whether certain activities were included more

often than others. Across studies, little information was provided regarding fidelity.

Outcome Measurement

Quantitative Data

Wigelsworth et al. (2013) reported using one measure, thirteen studies used between two

and four measures, and Stallard et al. (2012) described five main outcome measures across

emotional symptoms and feelings towards school, with additional questions including bullying and

substance use.

There was little overlap between studies in the outcome measures used, which may reflect

the diversity of interventions. The Warwick Edinburgh Mental Well-Being Scale (WEMBS) was the

most reported, in four studies. The Mood and Feelings Questionnaire was used in three studies, of

which one used the short version. The Centre for Epidemiologic Studies Depression Scale (CES-D)

appeared in two studies, as did the Revised Child Anxiety and Depression Scale, the Strengths and

Difficulties Questionnaire and Student Life Satisfaction Scale. Four studies reported using additional

bespoke measures (Eisenstein et al., 2019, Kuyken et al., 2013; Punukollu et al., 2020; Stallard et al.,

2012). Chiumento et al. (2018) interviewed teachers post-intervention but did not report on the aim

or results of this. The Strengths and Difficulties Questionnaire (teacher version), and two more child-

focused methods, were stated but not described, nor reported on. Only one study (Weeks et al., 2017) reported the use of a third-party measure however this was used pre-intervention, and post-intervention for one participant only.

Fit between the research question and method of data collection for quantitative methods was assessed as adequate or higher across all but one study (Punukollu et al., 2020) which used an unvalidated measure not assessing outcomes, and only one measure assessing anxiety and depression symptoms without referring to its suitability for a younger population. Universal intervention papers were more likely to report an assessment of reliability for outcomes measures, at each time-point. However, reporting on the reliability and validity of measurement tools was generally poor across both types of studies. Three out of five targeted studies did not report any information (Chiumento et al., 2018; Stallard et al., 2012; Weeks et al., 2017), and five out of ten universal studies either reported no information or did not assess the reliability within their sample (Challen et al., 2014; Eisenstein et al., 2019; Kuyken et al., 2013; Platt et al., 2020; Wigelsworth et al., 2013).

All studies reported moderate or complete information on method of analysis for quantitative data. Those scoring highest provided greater reference to the aims, sample (e.g., size and attrition) and if there were limitations, for both targeted (Brown et al., 2019; Stallard et al., 2012; Weeks et al., 2017) and universal interventions (Proctor et al., 2015; Wigelsworth et al., 2013). For justification of the analytical method chosen, those scoring highest referred to the literature and whether data met assumptions for specific tests. Universal intervention studies fulfilled this more often (60%) compared to targeted intervention studies (20%). Overall, this was reported moderately or completely in all studies, excluding Chiumento et al. (2018) and Weeks et al. (2017).

Two targeted interventions measured outcomes only at pre- and post-intervention (Chiumento et al., 2018; Weeks et al., 2017), Brown et al. (2019) up to three months later, while Pluess et al. (2017) and Stallard et al. (2012) completed six and twelve month follow ups. Five of the

ten universal interventions did not assess outcomes beyond one-week post-intervention (Boniwell et al., 2016; Eisenstein et al., 2019; Huppert & Johnson, 2018; Platt et al., 2020; Proctor et al., 2018). Three studies collection data up to three months post-intervention (Kuyken et al., 2013; Punukollu et al., 2020; Rice et al., 2015). Challen et al. (2014) conducted a 12 and 24 month follow up and Wigelsworth et al. (2013) conducted a two-year follow-up.

Across this area, the targeted interventions performing consistently higher were Brown et al. (2019) and Pluess et al. (2017), although Brown et al. (2019) did require further assessment of the reliability of measurements used within their sample. For universal interventions, Proctor et al. (2011) gave moderate or complete information across all areas. Challen et al. (2014) and Wigelsworth et al. (2013) achieved this in all but one area, receiving a lower score for a lack of detail on the reliability and validity of measurement tools used.

Qualitative Data

Five studies utilised a mixed-methods approach for assessing outcomes. Chiumento et al. (2018) used a modified qualitative wellbeing impact assessment with students to assess outcomes. Pluess et al. (2017) and Punukollu et al. (2020) interviewed teachers using a focus group and semi-structured interviews, respectively. Boniwell et al. (2016) conducted semi-structured interviews with four students, two teachers and a headteacher. Weeks et al. (2017) conducted semi-structured interviews with school staff and pupils, and a focus group for parents, although numbers within each group were not reported. Only Pluess et al. (2017) detailed the full questions used.

Scores were low for the QATSDD on questions relating to qualitative elements. There was insufficient information rather than observed methodological issues with the choice of data collection and analysis. For example, Punukollu et al. (2020) reported hour long interviews without and only reported on two questions making it hard to assess its appropriateness. In detailing the assessment of reliability for qualitative methods, no studies reported complete information (e.g.,

several raters and assessment of agreement), and two studies did not report any information (Boniwell et al., 2016; Weeks et al., 2017).

Replicability

The TIDieR checklist (Hoffmann et al., 2014) was used to assess and report on where information can be found within each intervention paper for the relevant item (e.g., rationale, materials, adaptations). Full details for each paper are in Appendix B and C. A score of completeness for reporting was calculated for each paper, and for each individual checklist item. For both intervention types, the amount of detail was variable and while page numbers reporting information for an item are given, this often included some but not all aspects of an item. For example, reporting on facilitator profession but not on training was common. All papers reported the name of the intervention and provided some rationale.

Within targeted intervention studies, all studies gave some details around the setting, facilitators, mode of delivery and dosage. Information around the intervention materials were detailed in two studies (Brown et al., 2019; Pluess et al., 2017) and activities in three (Brown et al., 2019; Chiumento et al., 2018; Pluess et al., 2017). Additional information for materials, where reported, are detailed in Appendix B and C. None of the targeted studies reported planned or actual modifications, one reported planned fidelity checks (Pluess et al., 2017) and two reported actual checks (Pluess et al., 2017; Stallard et al., 2012). Overall, papers ranged from reporting on 50% to 83% of items with Pluess et al. (2017) scoring highest.

For the ten universal approaches, partial or complete information were found in most studies regarding setting (70%), facilitators (90%), mode of delivery (80%), intervention activities (80%) and dosage (80%). Some materials were briefly described or gave minimal examples and only four studies provided information to where materials could be accessed (Challen et al., 2014; Proctor et al., 2011; Punukollu et al., 2020; Wigelsworth et al., 2013). One study reported on planned adaptations (Punukollu et al., 2020) and one reported on actual modifications (Platt et al.,

2020). For assessing implementation, only two studies reported planned fidelity checks (Rice et al., 2015; Wigelsworth et al., 2013) and two on actual fidelity (Challen et al., 2014; Wigelsworth et al., 2013). Overall reporting of items ranged from 33% to 83%, with four reporting 67%, one reporting 75% and another reporting 83%. The lowest scoring paper did reference an additional source but did not include key information about the intervention within the paper or appendices itself (Punukollu et al., 2020).

Discussion

The aim of this review was to summarise the state of evidence for group-based mental-health interventions, taking place within the school day in the UK. This is first of such reviews to be conducted on both targeted and universal intervention types. Evidence relating to the interventions, assessment, and outcomes were reviewed. Additional areas of fidelity, replication and inclusion of such details for school-based staff and researchers were included which is novel for UK-based studies to date.

Interventions

Across the fifteen studies included, ten were universally delivered and may reflect a shift towards preventative mental health in recent years. Of the targeted intervention studies, intervention sample sizes ranged from 11 to 296. The areas of focus also varied considerably, for example, young people with high-risk for depression, anxiety, and those demonstrating social and emotional difficulties. Universal interventions tended to include larger samples (N = 134 – 2844) and most included those in early adolescence. As wellbeing is reported to significantly decrease between 11 and 14 this may be an opportune time to intervene (NHS Digital, 2018). Across all studies, facilitators ranged from school staff, educational psychologists, and external health professionals. There was little detail around training and supervision given despite its importance (O'Reilly et al., 2018). Two universal interventions described flexibility to intervention delivery length (Proctor et al., 2011; Wigelsworth et al., 2013) which may be helpful for school staff who are faced with many

pressures (DfE, 2018). However, stricter assessment of these types of interventions were needed to understand dosage in relation to outcomes and what may be required for schools wishing to implement these interventions. Methods to assess fidelity to treatment protocols were often not cited and are needed to aid understanding of whether an intervention itself was effective or if certain external factors and variable delivery impact on outcomes (Bruhn et al., 2015; Reinke et al., 2021). Studies did not assess teacher or facilitator variables, which include a teacher's own levels of burnout that can be an important factor, impacting on amount of intervention delivery (Swift et al., 2017).

Assessment and Outcomes

There was a lack of consistency in outcome measures used despite interventions having overlapping aims in terms of reducing symptoms of depression, anxiety and well-being, and improving well-being, although this reflects other reviews of school-based mental health interventions (Werner-Seidler et al., 2017). Utilising the same outcome measures deemed appropriate for an adolescent population would support the comparisons of such interventions, and different approaches across similar settings. Many studies reported improvements on measures although eleven only collected data post-intervention, or within a three-month follow-up, and the efficacy reported is undermined by a lack of knowledge on sustainment. Only two of the ten universal intervention studies reported beyond a three-month period which is noteworthy considering the aims of these are often preventative, where cohort comparisons overtime would better support results. Of these two universal interventions, improvements were either not sustained (Challen et al., 2014) or not found (Wigelsworth et al., 2013). Whilst reporting quality was generally found to be higher for these two studies, and reported longer follow ups, they were also two studies which were flexible in the amount of intervention exposure given and did not consider this in analysis of outcomes observed. The lack of comparisons groups using alternative interventions limits the conclusions that can be drawn about an interventions effect on students

versus placebo (Boot et al., 2013). Two targeted interventions completed longer follow-ups, both six and twelve months (Pluess et al., 2017; Stallard et al., 2012) where improvements were seen. Pluess et al. (2017) highlighted comparatively worse scores from baseline for those who did not receive an intervention, with high reporting quality, one of few papers to consider measuring adherence of facilitators to the protocol and the highest degree of information for replicability (of a targeted intervention) as measured by the TIDieR checklist. This may indicate that the SPARK resilience programme is a viable targeted intervention for schools to deliver. Brown et al. (2019) also provided three-month follow-ups with good effect sizes across all measures, the highest quality assessment score across all studies, and an adequate degree of replicability for the 'DISCOVER' workshop.

Eisenstein et al. (2019) scored relatively highly on the QATSDD (74%), with five intervention lessons and good sample size, although only measured outcomes post-intervention. Challen et al. (2014) also scored high overall (79%) although did not show significant improvements, assessing the UK Resilience Program. Due to variable intervention exposure and a lack of assessment of implementation, it is difficult to ascertain whether any improvements occurred for some groups and not others. This was the same for Wigelsworth et al. (SEAL programme; 2013) and Proctor et al. ('Strengths Gym'; 2011).

Due to the described limitations, it may be that the interventions are efficacious although require further study whilst addressing missing information and longer follow-up points to give greater strength to their evidence base. Schools may wish to carry out one of the reviewed interventions in conjunction with guidance set out by the Mentally Healthy Schools website (Anna Freud, n.d) and specific, shorter guidance on the measurement of such outcomes (Demkowicz et al., 2020). This includes third-party measures which were not reported in the reviewed studies although could provide additional information or help mitigate potential effects of social desirability within self-report measures, and insight required for reporting one's own symptoms (Althubaiti, 2016; Björklund et al., 2014).

Limitations

This review aimed to review all quantitative and mixed-methods studies conducted since 2010. Limiting articles to those which have been peer-reviewed may lead to effective interventions not being included in this review. Teachers may additionally lack the resources to publish on interventions they have carried out due to extensive workloads, a lack of access to academic papers which are commonplace in other settings and a need for greater links between academics and school settings, despite being well placed to highlight the practicalities and insight for such interventions (Firth, 2016). The exclusion of qualitative studies is common when looking at the impact of interventions on outcomes to support a cohesive review (O'Reilly et al., 2018; Werner-Seidler et al., 2017). In the current review a clear outcome was identified, focusing on outcome data, considering the evidence for effectiveness and quality of recent UK studies. Within the above literature search, two qualitative UK studies were found but did not address the research question. However, qualitative data can enhance a rich understanding of the processes involved (Booth, 2016) and may have been helpful to include if available.

The QATSDD was chosen as one of few tools to assess studies of varying designs. There are limitations of the QATSDD such as the equal weighting of items where sample size may be seen of greater importance compared to user involvement, items not included regarding bias and randomisation, and greater clarity required on the differences between scoring criteria (Fenton et al., 2015). Lower scores may also reflect the length of the paper according to journal allowances, where further information may not have been possible. It is noted that mixed methods studied scored lower generally and may reflect a bias of the tool to quantitative methods as highlighted by Fenton et al. (2015). Recently, a revised tool (QuaDS; Harrison et al., 2021) was devised. Revisions include further examples for criteria and adaptations to wording for clarity, however the tool had not undergone a Delphi methodology to be registered and could not be used at the time of the review.

A combination of tools could have been used to address some of the QATSDD limitations, however combining measures can make it difficult to interpret scores across papers. One of the few other tools for mixed methods quality appraisal such as the Mix Methods Appraisal Tool (MMAT; Hong et al., 2018) could have been used, which comprises two screening questions for all types of studies and five additional questions depending on the study type, however it was not felt to highlight the detail which the QATSDD shows.

As this review drew together all intervention types and formats, it is difficult to draw conclusions regarding optimal, approaches for schools to consider when selecting an intervention to meet their students' needs. The diversity of designs and samples also prohibited the ability to conduct a meta-analysis, which could be particularly useful for targeted interventions, which included smaller samples. Whilst this is a limitation of the review, there is an additional lack of peer-reviewed research within the area to be able to draw on comparisons, and to provide comprehensive conclusions on best approaches for the variable aims schools may want to address. Of the reviewed universal interventions, scores were already low (not within clinical ranges) and as such improvements could only be minimal, and Whilst research has shown that mental health may impact on educational and other outcomes (Agnafors et al., 2020; McDaid, Park & Wahlbeck, 2019), all but one reviewed study included such outcomes. Future UK studies should seek to include outcomes which assess educational outcomes such as attendance and attainment and monitor the use of other services. Other measures could include triangulating information with teacher and parent measures, measures may not add significant time to those required by students, although may need to consider valid third-party measures that are efficient and (e.g., those found on the Child Outcomes Research Consortium and Mentally Healthy Schools; Anna Freud, n.d). It is also important that these measures are sensitive to the time pressures of those completing them. Following these beyond post-intervention to monitor long-term changes would be particularly helpful in the evaluation of universal interventions, where scores on outcome measures are often below clinical cut-offs and aims are to reduce the development of significant difficulties or see comparatively

better outcomes on their use of other services or educational achievement and observations of others.

Future Directions and Recommendations

As schools' focus on well-being is set to increase with upcoming curriculum changes, there are increasing requirements for schools to implement either targeted or universal interventions based on assessed need and available resources. Some of the reviewed interventions allowed flexibility within implementation. Whilst such flexibility may be beneficial for staff working within pressurised school systems, research is needed to evaluate and compare the impact of variation on outcomes. For those designing interventions, utilising consistent measures, larger samples, increasing follow-up lengths, assessing implementation, and using the TIDieR checklist (Hoffman et al., 2014) would support an evidence base that is better suited for meta-analyses to demonstrate effectiveness, if found.

There are continued developments and new interventions being carried out within UK schools, evidenced by those being published in the last few years. Several recent protocols were found, and although likely impacted by the events of Covid-19, may increase the pool of interventions and evidence within the UK over the next couple years. However, the evidence for such interventions within the UK school context is limited by the overall variability of approaches published, across a small sample of studies. Whilst those that collected data at longer time points did not see sustained results at two years, those findings are from only two of fifteen reviewed studies. It would be important for schools, and other researchers, to continue to add to the evidence of UK-based school interventions with the above considerations in mind, so that a larger peer-reviewed knowledge base can be gathered for supporting young people's well-being at a time of such change during the Covid-19 pandemic and as the impact of this time on young people's mental health becomes clearer.

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Implementation of Acceptance and Commitment Therapy Workshops for Secondary School Pupils: Acceptability and Feasibility of Training School Staff

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Abstract

Background

Supporting the mental health of adolescents within the UK is a priority, with schools increasingly mandated to provide interventions. Despite its importance, reporting the training of intervention providers and assessment of implementation is often missing in intervention studies. This paper reports on the acceptability and feasibility of training school-based staff to facilitate an acceptance and commitment therapy (ACT) intervention for adolescents. This was assessed through satisfaction with training and impact on knowledge, adherence to the intervention protocol, fidelity to principles of ACT, and changes in facilitators' psychological flexibility over time.

Methods

Fourteen school-based staff (seven teachers and seven school counsellors) attended training. Interventions were delivered in pairs, with six pairs delivering the three-lesson workshops. Eighteen workshops were assessed. The Training Satisfaction Questionnaire was used post-training. A situational judgement questionnaire on using ACT principles with young people was created and administered pre- and post-training. Adherence to manualised components was assessed via a checklist, and fidelity to the principles of ACT using the ACT Fidelity Measure (ACT-FM). A validated measure was used to assess for changes in psychological flexibility overtime.

Results

High satisfaction of training was found, alongside increased correct responses on the situational judgement test. Adherence to key intervention components ranged from 86% to 100%. Assessment of fidelity to ACT principles was consistently good, demonstrating the intervention is likely to be underpinned by ACT. However, variations were affected by facilitator's delivery and content of the sessions. Scores in psychological flexibility were higher across both professional groups at the follow-up point.

Keywords

Acceptance and Commitment Therapy; Adolescence; Fidelity; Implementation; Mental health;

Psychological flexibility; School

Introduction

A growing number of young people within the UK are reporting difficulties with their mental

health, with one in six adolescents assessed experiencing significant difficulties, compared to one in

nine three years prior (NHS Digital, 2018; NHS Digital, 2020; Pitchforth et al., 2019). Reported

increases in social inequalities for young people were largest in the UK when compared to 45 other

countries between 2015 and 2018 (The Children's Society, 2020). Concerns over adolescent mental

health have increased further within the context of the Covid-19 pandemic. For example, compared

to the previous year, Kooth (2020) found that young people reported increasing difficulties in several

areas including sleep (by 161%), health anxiety (by 133%), loneliness (by 63%) and self-harm (rising

27%). Adegboye et al. (2021) found that during the pandemic, young people who were already

vulnerable experienced heightened anxiety, and overall mental health difficulties rose from 61% to

69%.

The impact of adolescent mental health difficulties is significant; lower emotional well-being

of adolescents has been associated with poorer academic achievement, as well as subsequent adult

mental health difficulties (Agnafors et al., 2020; Johnson et al., 2020). In a cohort study, Caspi et al.

(2020) found that the onset of mental health difficulties occurred prior to the age of 18 years old for

59% of adults. Adult mental health difficulties impact areas including financial earnings and

increased use of health systems, and with many difficulties presenting in young people, investment

in early prevention is essential (McDaid et al., 2019).

As young people spend a significant proportion of their time in schools, school-based

approaches have been promoted as a viable location for such interventions (Anna Freud, n.d.;

Department for Education, DfE, 2018; World Health Organization, 2021). Schools have the advantage

of potentially reducing stigma and can provide promotion of mental health awareness and support

through curriculum activities and wider whole school approaches (DfE, 2018; Gulluver et al., 2010).

Recently, UK government guidance has stipulated that mental health curriculum and interventions

are mandatory, whether delivered universally or for targeted groups (DfE, 2019; Scottish

Government, 2017; Welsh Government, 2021).

ACT as a Universal Mental Health Intervention in Schools

Acceptance and Commitment Therapy (ACT; Hayes 1999) may be particularly suited to a

universal intervention within the school curriculum. ACT has been developed as a transdiagnostic

intervention, suited to young people and the school environment through its emphasis on the

commonality of experiencing distress and noticing our own relationship to these experiences. This

can be helpful for mental health difficulties across diagnoses, pre-clinical symptoms, and situations

such as exam stress (Gillard et al., 2018; Fang & Ding., 2020b). An overarching aim of ACT is to

improve the psychological flexibility of individuals, such that individuals can act in line with their

values, despite distressing or undesired experiences (Hayes et al., 2006). The use of metaphors,

values-based activities and mindfulness exercises are used to facilitate this learning and practice of

psychological flexibility (Livheim et al., 2015). Psychological flexibility can be thought of as

underpinned by six core processes; acceptance (openness to experiences, including difficult

feelings), cognitive defusion (ability to gain distance from cognitions, recognise them as thoughts

rather than facts), being present (non-judgemental contact with the current moment), self as

context (the self which notices and experiences the thoughts and feelings, and allows flexibility in

the view of oneself across situations), values (qualities an individual wants to display, that are never

'achieved' but acted in line with moment to moment) and committed action (acting in line with

values despite difficult experiences, when able to) (Hayes et al., 2012). For therapists, R. Harris

(2009) details the importance of engaging in their own practice to support ways of relating to their

own thoughts and experiences, psychological flexibility, and ability to support clients with greater

efficacy and experiential knowledge. Levels of psychological flexibility may also impact on how able

someone is to engage with another, show empathy and relate despite uncomfortable or differing

feelings (Levin et al., 2016).

A review of ACT-based interventions with young people by Swain et al. (2015) highlighted

methodological issues which included small sample sizes and a lack of active controls. However,

results were deemed promising for its use with this population. Reviews by E. Harris and Samuel

(2020) and Fang and Ding (2020a) concluded that ACT interventions, when compared to treatment

as usual or waitlist controls, showed reductions in mental health and behavioural difficulties but did

not significantly differ from CBT interventions. Harris and Samuel (2020) commented that whilst

studies demonstrated clear rationales, details of the research setting and choice of outcome

measures, most studies did not include calculations of power analyses, service user involvement in

study design or follow-up outcome measures. Fang and Ding (2020a) also reported limitations due to

the need for larger sample sizes, greater description of treatment as usual, and assessment of

facilitator adherence to the manual.

Within schools, ACT interventions have been carried out with varying aims and results. Some

studies found no significant effects on emotional symptom outcomes (Burckhardt et al., 2017; Van

der Gucht et al., 2017) while others found positive effects on anxiety (Livheim et al., 2015; Smith et

al., 2020) psychological flexibility (Fang & Ding, 2020a; Smith et al., 2020), reducing overall

emotional symptoms (Bernal-Manrique et al., 2020; Takahashi et al., 2020) and stress (Livheim et al.,

2015).

Treatment Fidelity when Implementing Interventions

Within a school environment, delivery of the same intervention may vary and impact the

outcomes observed for students (Reinke et al., 2020). School systems are complex and can pose

challenges to standardised delivery through staffing levels, physical space and engagement from

staff (Patalay et al., 2016). Understanding the effectiveness of an intervention, and the underlying

mechanisms of change, can be affected by how researchers have assessed this (Bruhn et al., 2015;

Miller & Rollnick, 2014). When it is not known whether an intervention was delivered consistently or

as intended, significant or non-significant results could relate to the intervention itself or other

factors (Bellg et al., 2004; Gersten et al., 2005; Kerns et al., 2021). Assessment of treatment fidelity

has therefore been recognised as a key area of research to ensure clarity in the interpretation of

intervention results, the processes underpinning these results, and in helping to design future

intervention studies (Bellg et al., 2004; Bhattacharyya et al., 2009).

Treatment fidelity can be defined as the extent to which an intervention is enacted as

intended (Gresham, 1989). However, the aspects of treatment fidelity which are measured can vary

and may include (a) adherence to the treatment protocol; (b) fidelity to the theoretical model in

which the intervention draws upon; (c) whether it was delivered in a competent manner; and (d)

amount of exposure (Bruhn et al., 2015; Nezu & Nezu, 2008; Sanetti & Kratochwill, 2009;

Schoenwald & Garland, 2013). For example, a facilitator may have delivered all required components

of an intervention (adherence) and demonstrated skills relating to the underlying approach (fidelity

to the theory) but done so in a rushed manner with little time for engagement (competence), and

only delivered half of the sessions required (exposure).

Within this paper the term fidelity will reflect the literature and be defined as follows:

- treatment fidelity (the overall area of measuring fidelity)

- adherence (fidelity to the intervention manual)

- competence (skilled delivery)

- fidelity to the model (congruence with the theoretical model which the intervention is
  based upon)

The terms integrity and fidelity are used interchangeably within the literature (Bruhn et al.,

2015). Studies vary in whether they are referring to one or more of the above aspects (Cross & West,

2011; Moir et al., 2018; Schulte et al., 2009). Adherence to treatment manuals is seen as essential

(Hagermoser-Sanetti & Luh., 2020) and often the only measure of 'fidelity' referenced within

intervention studies (Kerns et al., 2021; Pluess et al., 2017; Rice et al., 2015; Werner-Seidler et al.,

2017). Treatments which are consistent with proposed theoretical frameworks have also been found

to demonstrate stronger associations with outcomes (Resnick et al., 2005). Plumb and Vilardaga

(2010) highlight the importance of measuring both fidelity to the manual and fidelity to the

theoretical model it is based upon. This is to better understand the mechanisms underlying

effectiveness and help separate what makes one approach effective when compared to another.

To ensure treatment fidelity, standardised training for facilitators, delivery of treatment

through defined performance criteria, enactment of treatment skills and ongoing supervision have

been highlighted as important (Bellg et al., 2004). It is important to consider the acceptability and

satisfaction of training for facilitators (Sekhon et al., 2017), along with acquisition of knowledge or

skills (Bellg et al., 2004). These factors can impact on the intentions to implement an intervention

(Renko et al., 2020), transfer to subsequent practice and positively impact commitment and

engagement (Mansour et al., 2017; Memon et al., 2016). Training can be assessed through tests of

knowledge or situational judgements (Patterson & Driver, 2018). Situational judgement tests

describe an interpersonal situation and offer potential responses to the event. Participants may be

required to choose the most appropriate option or rate them from 'most' to 'least' appropriate

(Webster et al., 2020). Situational judgement tests can represent situations trainees are likely to face

(Graupe et al., 2020) and have been shown as useful for measuring performance post-training

(Patterson & Driver, 2018; Patterson et al., 2016; Taylor et al., 2016; Webster et al., 2020).

Treatment Fidelity and School-based Mental Health Interventions

Despite teachers often playing a key role in the implementation of school interventions, the

training for facilitators of school-based interventions is an under-reported area of research, and the

potential impact on student outcomes is unknown (Lander et al., 2017). Shelemy et al. (2019)

interviewed teachers around supporting pupils' mental health. Teachers expressed wanting interactive training containing realistic scenarios, and questions to assess understanding were seen as helpful. A lack of implementation detail can make it difficult to understand factors contributing to the progress (or the lack of) in student outcomes and present a barrier to replication (Bruhn et al., 2015; Fang and Ding, 2020a). Significant results could be due to the intervention being delivered appropriately but not being effective, effective when adapted by facilitators, or not being delivered as intended (Hagermoser-Sanetti & Luh, 2020).

When assessing feasibility of implementation, adherence to intervention manuals are often evaluated using a checklist of components considered key to the intervention (Werner-Seidler et al., 2017). These may rely on facilitators' self-report, independent observation, or, ideally, both (Bruhn et al., 2015; Keller-Margulis, 2012; Plumb & Vilardaga, 2010). Schulte et al. (2009) also discuss the importance of noting adaptations of the intervention protocol. Durlak et al. (2011) reviewed 213 universally delivered school-based programmes for social and emotional learning. They reported that 43% (n=91) of reviewed studies did not report whether the intervention was implemented as intended, 22% reported significant problems and 35% reported no problems. Durlak et al. (2011) found implementation problems were strongly associated with student outcomes and limited the areas to which gains were seen across academic, behavioural, social and emotional indicators. Werner-Seidler et al. (2017) reviewed 81 school-based anxiety and depression prevention programmes and found that 41% (n = 33) did not report on assessments of fidelity, while others included assessment by independent raters on adherence using audio or visual recordings (23%), and 17% used self-report checklists. McKeering and Hwang (2019) reviewed mindfulness-based interventions and found that only three of eleven studies reported on treatment fidelity. Of these, one measured adherence and competence, one measured adherence only, and the third asked for facilitators to reflect on their performance and for potential improvements to the intervention.

The above reviews highlight the variable methods and difficulties of assessing treatment fidelity when delivering school-based interventions across approaches, and the overall paucity of reporting.

Assessing Fidelity to ACT

Within the broader ACT intervention literature, assessing fidelity to the principles of ACT have been measured in various ways. Shawyer et al. (2017) developed a measure (ACT for Psychosis Adherence and Competence Scale; APACS) to assess integrity of an ACT intervention for psychosis. Plumb and Vilardaga (2010) developed a measure for an ACT intervention for those diagnosed with obsessive compulsive disorder. Due to length and complexity, or condition-specific nature of existing ACT fidelity measures, O'Neill et al. (2019b) developed a fidelity measure for ACT interventions that could be used across conditions and interventions (the ACT Fidelity Measure; ACT-FM). A Delphi methodology was used to develop the measure, with professionals asked to review an initial draft of 42 items based on existing literature and knowledge. The items related to one of four areas: general ACT therapeutic stance, openness, awareness, and engagement. Professionals were asked to comment on the measure's content validity, observability in practice and whether to include the item. The resultant ACT-FM measures both ACT *consistent* and ACT *inconsistent* behaviours. This is based on the literature which notes the importance of recording deviations from fidelity to the model (Plumb & Vilardaga, 2010). An inconsistent item is not necessarily the antithesis of a consistent item. For example, a *consistent* item of: "Therapist uses present moment focus methods…to increase awareness of the moment", versus an *inconsistent* item in the same sub-domain of: "Therapist introduces mindfulness…as means to control or diminish or distract from unwanted thoughts". The ACT-FM measure contains 25 items over the four domains and has demonstrated good inter-rater reliability (K= 0.73), although further testing is required in contexts such as group-based interventions (C. Graham, personal communication, November 27, 2020).

Assessing Treatment Fidelity within School-Based ACT Interventions

Szabo and Dizon (2016) discuss some of the facilitators for successful implementation of an ACT intervention within the school setting. This includes enabling school staff the time to learn and understand ACT (e.g., using experiential methods), ensuring materials are appropriate for the students' age and ability, with adaptations to materials where needed, and recognising the importance of understanding the school context and culture.

Assessment of satisfaction with training, adherence to the intervention manual, and measurement of fidelity to the underlying model are not generally reported within the seven school-based ACT studies described above (Bernal-Manrique et al., 2020; Fang & Ding, 2020a; Livheim et al., 2015; Takahashi et al., 2020; Van der Gucht et al., 2017). Burckhardt et al. (2017) designed a fidelity measure for the purpose of their study, but due to technical issues were unable to collect data. Smith et al. (2020) reported that the second facilitator's role was to support adherence to the protocol, however this was not reported as systematically assessed, fidelity to the principles of ACT were not discussed and no further details were given. To the authors knowledge, no published papers have measured facilitator's psychological flexibility within implementation.

InTER-ACT

This paper concerns a three session ACT-based programme called In-school Training in Emotional Resilience: with ACT (InTER-ACT; Samuel et al., 2021). The intervention was developed by two clinical psychologists with significant experience in the area and regular clinical practice using ACT. InTER-ACT aims to increase psychological flexibility to improve adolescent's abilities to navigate stressful and challenging experiences. A pilot of the intervention (InTER-ACT), delivered by the developers, was carried out in one English secondary school (E. Harris, 2020). Subsequently, the workshop content was refined in response to feedback from young people, teachers, and the facilitators. A training programme was then developed to enable the workshops to be delivered by school staff and broaden the programme's reach. The two-day training course involved experiential

exercises, and the workshops themselves encouraged facilitators to bring their own examples, reflections and intentions on acting in line with their identified values. The finalised programme involves three hour-long workshops entitled: Thoughts are Just Thoughts; Pause, Observe, Describe and Taking Steps Towards What Matters. The revised intervention is designed to be delivered in a pair comprising a member of teaching staff (e.g., teacher or pastoral care member of staff), along with a school counsellor. This paper focuses on training for the first cohort of school staff, and their subsequent delivery of the InTER-ACT programme.

The Current Study

This paper will assess the acceptability and feasibility of training school staff to deliver the InTER-ACT programme. Satisfaction and acceptability of the training will be assessed, along with treatment adherence and fidelity to the ACT theoretical framework. Student outcomes, satisfaction, and qualitative feedback through interviews with school-based facilitators are assessed and described separately.

Objectives

The objectives of this study are as follow:

- to evaluate satisfaction and acceptability of the workshop training;

- to ascertain if training improves knowledge of using ACT principles with young people;

- to assess psychological flexibility of facilitators overtime;

- to assess adherence to the treatment manual;

- to assess fidelity to ACT principles, piloting the ACT-FM measure.

Method

Participants and Recruitment

Participants were dyads of one school counsellor paired with a schoolteacher or pastoral care member of staff. For the schoolteacher role, professionals were required to have a qualification in teaching or spend a significant proportion of their role in a teaching capacity. For school counsellors, a qualification in counselling, or significant experience within a pastoral role supporting mental health was required. Both were assessed during recruitment stages. School-based professionals were recruited opportunistically between the academic year of 2019/20. Information sheets were sent to interested headteachers and/or pastoral care teams (Appendix F and G). Participants were recruited through a school charity counselling service in England, identification of nearby schools where these school counsellors had agreed to take part, and personal links. Through the counselling service, five counsellors and their respective schools agreed to take part. Six additional schools were identified and contacted, two of these were through personal links who were able to provide both a schoolteacher and counsellor. Three did not reply. One school agreed to take part but were unable to provide a counsellor due to funding. Therefore, dyads from seven schools signed up and received training.

Procedure

Training

Prior to training, the three workshops were sent as Microsoft PowerPoint presentation slides. Each slide contained verbatim facilitation transcripts to ensure consistency in delivery. A script for a specific mindfulness exercise was provided separately. Multiple bespoke illustrations and a bespoke animation (Your ACT Auntie, 2020) were developed in collaboration with an experienced children's illustrator and included throughout the presentations to support the material and aid engagement. Handouts for a valued-based activity were also provided to all facilitators to distribute to the students.

Training was delivered over two days by the two clinical psychologists who developed the InTER-ACT programme and supported by two trainee clinical psychologists. Training was delivered virtually due to Covid-19 restrictions. Day one of the training included theoretical information and experiential methods to expose workshop facilitators to ACT theory and skills. Day two consisted of watching pre-recorded videos of the full workshop programme, role-played by the workshop developers. After this, dyads worked in pairs in virtual 'break out rooms' to practice the workshop content, interspersed with discussions as a whole group. One facilitator was unable to attend the training and was given a recording of both days. Their facilitating partner was accompanied by a trainee clinical psychologist during training to practice content.

Participants were sent a website link to complete the measures at the beginning and end of training, with consent forms and debrief information included (Appendix H and I). A follow-up link containing one measure of psychological flexibility was sent via email six weeks after the last delivered workshop. Facilitators were encouraged, but not required, to practice ACT throughout the study.

Measures

Background Information

Demographic questions related to age range, gender and professional role were completed by participants prior to the training (Appendix J and K). Additional questions related to previous knowledge of ACT and training, general mental health training, years of experience in role, amount of time teaching students and in what format (i.e., group or 1:1).

Objective 1: Satisfaction with Workshop Training

The Training Satisfaction Rating Scale (Holgado-Tello et al., 2006) is a 12-item Likert scale questionnaire chosen as a validated outcome measure and was administered post-training (Appendix L). Total scores range from 12 to 60 (each item rated 1 to 5), where higher scores indicate

higher satisfaction. Holgado-Tello et al. (2006) reported the reliability of the TSRS with a Cronbach alpha of 0.89. Crohnbach's alpha for the current sample (N = 14) was 0.81. An additional free text box was included to allow for qualitative comments.

Objective 2: Impact of Training on a Situational Judgement Test

A 9-item situational judgement questionnaire (Congruent ACT responses with Young People; CoACT-Y) was created by the research team and discussed with professionals in the field. The measure included situations facilitators may face with students and gave three possible responses, of which one was 'ACT consistent' (Appendix M). A score of 1 was given to each ACT consistent response chosen, resulting in possible scores from 0 to 9, with higher scores representing higher ACT consistent responses. This was assessed pre- and post-training.

Objective 3: Changes in Psychological Flexibility Post-Intervention Delivery

The Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT; Francis, Dawson, & Golijani-Moghaddam, 2016) is a 23-item questionnaire measuring core ACT processes (Appendix N). Higher scores are associated with greater psychological flexibility. This questionnaire was administered prior to training and six weeks after delivering the workshops to assess whether attending training and delivering the workshops may have impacted the facilitators' own psychological flexibility. Cronbach's alpha for the total score was assessed as 0.91 for an adult, non-clinical sample (Francis et al., 2016). For this sample (N = 12), Cronbach's alpha at time one was 0.90, and at time two 0.93. Francis et al. (2016) demonstrated good convergent validity with an established measure of ACT processes. Lower scores on the CompACT, indicating a greater level of psychological inflexibility, were associated with poorer outcomes on measures of wellbeing, health, and greater levels of distress.

Objective 4: Adherence to the Manual and Competency of Delivery

All InTER-ACT workshops were audio recorded through encrypted devices or a secure online platform. Cameras were turned off where online video calling software was used. Two devices were often used to capture audio of both the facilitators and students, to give context to facilitator responses, and given the social distancing measures in schools during the data collection period. Where school staff's personal devices were used, an end-to-end encrypted messaging service was utilised to send recordings after the session and recordings were immediately deleted from devices. The research team and programme developers were available to all staff informally to answer questions before and after the training. A scheduled question and answer session was offered online several weeks after the training but was only accessed by one participant.

Adherence was measured in terms of exposure to the intervention (frequency and length) and content of workshops delivered. Adherence to the manualised content was measured through a checklist, devised for this specific intervention, and based upon components deemed key to the intervention (Plumb & Vilardaga, 2010). Additional components were included for their centrality to the overall delivery and understanding of key processes (Sanetti et al., 2014). For example, some checklist items related to sections of psychoeducation, such as information to learn about mindfulness, prior to engaging in a mindfulness practice. Each workshop had its own checklist, divided into seven overall components with a description of exercises or key points to cover, as outlined within the scripted manual. Scores were rated on a three-point scale of 0 (missing or no evidence), 1 (partially delivered) or 2 (fully delivered).

Competence was measured on three items of: facilitator engagement, responsiveness and overall competence. Facilitator engagement was scored from 0 (e.g., no evidence of attempts to engage students or respond), 1 (some attempts to engage students and respond) or 2 (regular attempts to engage students and respond). All adherence and competence scores were rated by the author, and a proportion (33%) checked with an independent rater. Adaptations or deviations were

noted qualitatively to aid refinement of future workshops (O'Donnell, 2008; Schulte et al., 2009).

The overall possible score for each workshop on content was 14, and for overall delivery 20.

Percentage scores were calculated for content adherence, and competency described separately.

The full checklist can be seen in Appendix O. Inter-rater reliability was found to be high for the six

sessions rated by the author and an independent researcher on adherence to the protocol ($\kappa = 1$)

and when combining this with the competence ratings for the overall score ($\kappa = 0.939$).

Objective 5: Fidelity to ACT Principles, Using the ACT-FM

The ACT-FM (O'Neill et al., 2019b) was used to assess fidelity of the delivery of the

intervention to the underlying principles of ACT (Appendix P). Within the measure 25 items are split

across four domains of: Therapist Stance; Open Response Style; Aware Response Style and Engaged

Response Style. Each domain further splits into 'ACT consistent' and 'ACT inconsistent' items with a

relevant description (O'Neill et al., 2019a). For example, an ACT consistent item within the domain of

'Open response style' is: "Therapist gives the client opportunities to notice how they interact with

their thoughts and/or feelings (e.g., whether avoidant or open)". An ACT inconsistent item for the

same domain is: "Therapist encourages the client to 'think positive' or to substitute negative for

positive thoughts as a treatment goal". Each score for the 25 items reflects the consistency of a

certain behaviour with "no evidence", "rarely enacts", "sometimes…" and "consistently…".

Facilitation of the workshops were split into two roles, for facilitators to decide in their pairs which

they would prefer and could change for each workshop. Each role had different exercises and

discussions to lead, and therefore differing opportunities to demonstrate behaviours related to the

ACT-FM sub-domains. Discussion with one of the developers of the measure took place after coding

several workshops (C. Graham, personal communication, November 27, 2020). The discussion

included a check on interpretation of items and discussion of its use in a group-based context.

The full duration of all eighteen workshops were coded by the author using the ACT-FM. A

single integrated score for each item on the ACT-FM was graded according to the combined delivery

of both facilitators. An inter-rater reliability check was carried out by an independent rater deemed to have sufficient experience in ACT. For this process, two sessions from each different type of workshop were selected using randomisation software for a total of six intervention sessions (33%). These sessions amounted to almost five hours of recordings (all workshops totalled 13.5 hours). Discussion between the raters took place after two workshops had been coded (Plumb & Vilardaga, 2010). Inter-rater reliability improved following discussion (0.72 vs 0.96). Intra-rater reliability was calculated for six workshops and showed no differences.

There were only two instances of a discrepancy for scoring ACT *inconsistent* behaviours. Discrepancies of ACT *consistent* behaviours centred around the frequency of behaviours given the short time frame of a lesson and when an action could be coded across several items. The item of "The therapist lectures the client e.g., gives advice, tries to convince the client, etc." was discussed in the context of how there may be some elements of the classroom environment that lead to a more 'lecturing' style.

Analysis

Analyses only included participants who gave responses at both time points (i.e. paired cases). Data was analysed using SPSS (version 26). Initial analyses generated descriptive statistics and conducted checks of normal distribution. This was a feasibility study with small sample size. Categorical data and school adherence scores are presented numerically and as a percentage. Assessment of the training satisfaction scores were compared to the original study for reliability, and similar research to compare the mean score. For the situational judgement questionnaire administered pre- and post-training, data was not normally distributed and negatively skewed towards the maximum score. Therefore, a non-parametric Mann-Whitney U test was performed to assess differences between roles. Pre- and post-training scores are presented as cases graphically. Data for the CompACT, looking to assess facilitators psychological flexibility pre-training and at a

later follow-up point, met assumptions of normality for parametric testing. Levene's test indicated equal variances (F = .534, p = .659) and a 2x2 mixed ANOVA was conducted.

Results

Summary of Participants

Seven pairs of staff attended the two-day training. Analysis pre- and post-training includes all seven pairs. Six pairs both identified as females, one pair both identified as males. One of the female pairs were unable to deliver the intervention due to restrictions around Covid-19. Therefore, six pairs delivered the intervention and completed the follow up measure of psychological flexibility. Demographics are shown in Table 1.

Amongst the seven teachers, the subjects taught varied. All had taught for a minimum of one year, with four teaching six or more years. Previous training in mental health varied for each participant with no overlap in approach. Only one teacher had heard of ACT prior to the training and none had received training in ACT.

Within the school counsellors, six reported background data. These six all took part in delivery of the workshops. Two reported being in their role for under a year, three for 1-5 years and one for 6-10 years. Five school counsellors reported "always" working 1:1 with students and one reported working 1:1 and with groups/classes in equal amounts. Four counsellors reported hearing of ACT prior to training. Of these four, three had received some training in ACT previously; two for three hours and one person had received sixteen hours.

Table *1*

Demographics and Awareness of ACT of school-based staff attending training

Demographic		Role		
		Teacher	School Counsellor	Overall Sample
N		6	6	12
Age	25-34	2	1	3 (25%)
	35-44	1	3	4 (33%)
	45-54	3	1	4 (33%)
	55-64	0	1	1 (8%)
N		7	7	14
Gender	Female	6	6	12 (86%)
	Male	1	1	2 (14%)
Duration in profession	<1 year	0	2	2 (14%)
	1-5 years	3	4	7 (50%)
	6-10 years	3	1	4 (29%)
	10+ years	1	0	1 (7%)
ACT Related				
Aware of ACT	Yes	1	5	6 (43%)
	No	6	1	7 (50%)
	Unsure	0	1	1 (7%)
Prior Training in ACT	Yes	0	3	3 (21%)
	No	7	4	11 (79%)

N.B. One teacher and one counsellor did not give details of their age. This pair did not go on to deliver the intervention.

Objective 1: Satisfaction with Workshop Training

The Training Satisfaction Rating Scale (Holgado et al., 2006) was used as a quantitative measure of satisfaction. The mean satisfaction score was high, out of a possible score of 60 ($M = 54.07$, $SD = 3.75$). This is comparable to another study of training on treatment implementation (Beidas, 2012) where those with the most comprehensive training reported higher scores ($M = 55.5$, $SD = 4.7$). Within the free text box, comments given were largely positive and indicated high levels of acceptability relating to the training delivery (ability to practice content in separate "rooms" on a virtual platform; high quality training presentation), content (interest in the content; including

videos of intervention delivery; high quality materials provided; various learning activities; applying content to their own experiences) and supporting confidence for future delivery (ability to discuss; seek reassurance). Suggested improvements were to have the training in person (n=3), and one person did not feel the practice time was necessary.

Objective 2: Impact of Training on a Situational Judgement Test (CoACT-Y)

A 9-item questionnaire was designed for the purpose of this study to measure knowledge of ACT congruent responses when supporting young people. This was completed by participants pre- and post-training. Scores were out of a maximum possible of nine, with higher scores thought to reflect knowledge of ACT congruent responses. The data did not meet assumptions of normality. Data was skewed towards the maximum possible score for counsellors pre-training, and both teachers and counsellors post-training.

Pre-training, two counsellors scored the maximum possible of nine, and three school counsellors and one schoolteacher scored eight out of nine. Post-training four counsellors and five teachers scored the maximum possible, and two counsellors and one teacher scored eight. There was no significant difference between teacher and counsellor scores pre-training ($U = 35.00$, $N_1 = 7$, $N_2 = 7$, p = .209) or post-training ($U = 21.00$, $N_1 = 7$, $N_2 = 7$, p = .710). The data for all cases are presented in Figure 1 and 2.

Figure 1

Teacher Scores on the CoACT-Y, Pre- and Post-Training.
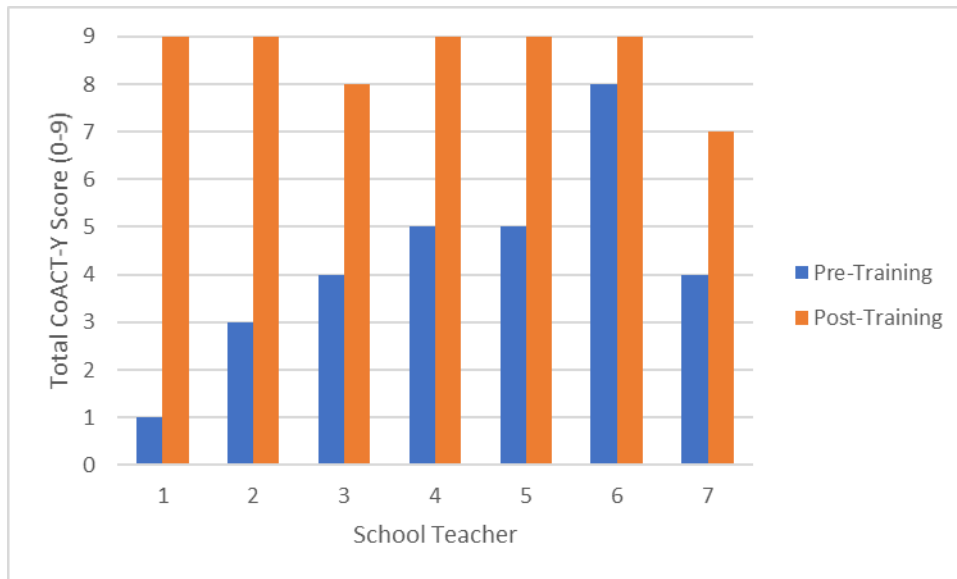
Figure 2

School Counsellor Scores on the CoACT-Y, Pre- and Post-Training
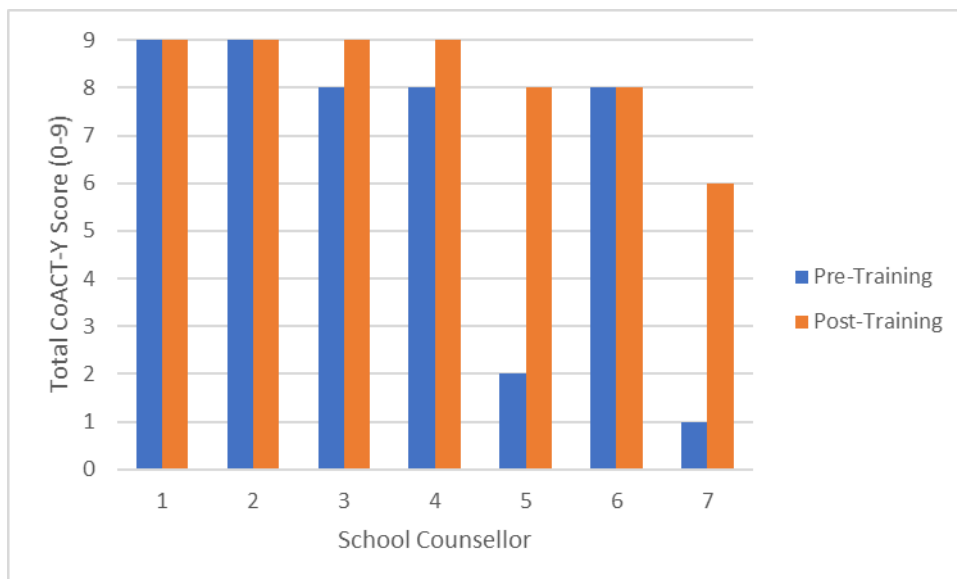
Objective 3: Changes in Psychological Flexibility Post-Intervention Delivery

The CompACT (Francis et al., 2016) was administered prior to training and six-weeks after delivering the final workshop to indicate levels of psychological flexibility. Total scores are shown in Figure 3. A 2 x 2 mixed ANOVA was performed on the total CompACT score for schoolteachers and counsellors, pre-training and at follow-up. The mean score across both roles (N=12) was higher at

the second time point (*M*=94.58, *SD*=22.03 vs *M*=107.25, *SD*=18.87). The main effect of the within-subjects factor of 'time' was significant, $F_{(1, 10)} = 30.59$, $p < .001$. The main effect of the between-subjects factor of 'role' was not significant, $F_{(1, 10)} = 1.05$, $p = .33$, nor was the interaction of time and role, $F_{(1, 10)} = 2.56$, $p = .14$.

Figure 3
Mean CompACT Scores Pre-Training and Six Weeks Post-Intervention.
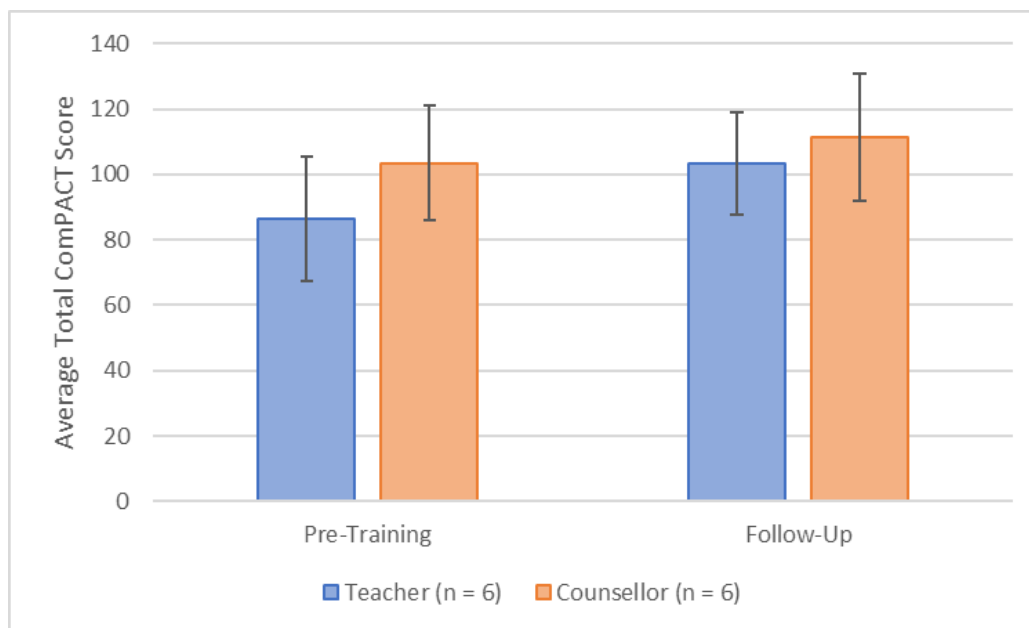
Note: Maximum possible score = 138. Error bars are the standard deviation.

Objective 4: Adherence to the Manual and Competency of Delivery

Within the training, school staff were asked to run the workshops no more than two weeks apart, no more than one workshop per week, and delivered within a five-week period overall. All six schools demonstrated 100% adherence in this respect. The length of a standard lesson period varied across schools with some able to hold 1-hour lessons and some 50-minutes. The duration of time used to deliver the workshops ranged from 34 to 61 minutes overall (*M* = 44.50, *SD* = 6.86). Only one school delivered a workshop for longer than 50 minutes and did so for each of the three workshops. Workshop one ranged from 39 to 54 minutes (*M* = 45.33, *SD* = 5.68), workshop two from 42 to 61 minutes (*M* = 47.83, *SD* = 7.22) and workshop three from 34 to 51 minutes (*M* = 40.33, *SD* = 6.38).

Adherence to the manual was generally found to be high, with all eighteen workshops completing between 86% and 100% of key components. Four out of eighteen workshops delivered 86% of key components, ten delivered 93%, and four delivered 100%. Table 2 shows these scores by school. Adaptations included expanding on examples, giving additional information that was consistent with the content and referring to previous material. Deviations included giving inconsistent information and omitting key exercises. No school omitted an entire key topic for any of the workshops. One school played an incorrect video where an advert relating to ACT was shown in its place. One instance was observed of audio not working for a video, where the audio was background music. There was no consistent pattern observed in which exercises or discussions were missed or deviated from.

Table 2

Percentage of key components delivered by school

| | School | | | | | |
Workshop	A	B	C	D	E	F
Workshop 1	93%	86%	93%	100%	86%	93%
Workshop 2	100%	100%	93%	93%	86%	93%
Workshop 3	100%	93%	93%	93%	86%	86%

For scores of facilitator delivery, there was a maximum possible score of six for facilitator engagement, responsiveness, and overall competence (a maximum score of two for each; Appendix O). Scores are shown in Table 3. Two out of the six schools scored the maximum possible for each workshop. Only one school scored less than four out of six which occurred in two out of their three workshops.

Table 3

Scores on facilitator delivery of engagement, responsiveness, and overall delivery

	School					
Workshop	**A**	**B**	**C**	**D**	**E**	**F**
Workshop 1	6	6	4	5	2	5
Workshop 2	6	6	6	5	4	5
Workshop 3	6	6	4	6	2	4

Note. Maximum score = 6

Objective 5: Fidelity to ACT principles, Using the ACT-FM

Workshops were assessed in terms of their fidelity to ACT related principles as outlined within the ACT-FM (O'Neill et al., 2019a). Each of the four different sub-domains has a maximum possible score of 9 (indicating regular enaction of all the principles within the domain) and total scores of ACT *consistent* observations are out of a maximum 36, as are *inconsistent* observations.

Overall scores are shown in Table 4. For total ACT *consistent* scores, the first workshop ranged from 21 to 30 out of 36 (M = 25.67, SD = 3.30), the second from 20 to 30 (M=26.33, SD=3.20) and third from 26 to 29 (M = 27.50, SD = 0.96). For ACT *inconsistent* items, higher scores represent greater instances of behaviours *inconsistent* with the principles of ACT, out of a possible 36. Scores for the first workshop, across all schools, ranged from 0 to 7 (M = 2.83, SD = 2.67), the second ranged from 0 to 5 (M = 2.17, SD = 1.95) and the third workshop from 0 to 4 (M = 1.50, SD = 1.38). One school had no ACT *inconsistent* responses across all workshops (School F), and another school had none across two workshops (School A). One school accounted for 33% of ACT *inconsistent* scores (School E) and had two relatively low scores for ACT *consistent* items in the first and second workshop. Whilst their ACT *consistent* score were in line with scores of other schools for the third workshop, the score for ACT *inconsistent* items was still above average. A Spearman's rank-order correlation was conducted to assess the relationship between *consistent* and *inconsistent* scores in

workshops. There was a significant negative correlation between ACT *consistent* and *inconsistent* scores ($r_s(18) = -.59$, $p = .010$).

Overall scores for each sub-domain, across each workshop, are shown in Figure 4, 5 and 6. Each has a possible score of 9 (higher scores indicating greater ACT *consistent* or *inconsistent* delivery. Across all eighteen workshops, there was only one instance of a score above two in a single sub-domain for ACT *inconsistent* delivery. ACT *inconsistent* responses were evident across all sub-domains although less so within 'Open Response Style', and 'Engaged Response Style'. Examples of ACT *inconsistent* responses for the Open Response Style sub-domain were "I was worried…so I told myself it'll be okay…just think positive thoughts" and "if we can learn to control our thoughts…". An example scored under the 'Aware Response Style' sub-domain was "so mindfulness can help us to get rid of these difficult feelings" or agreeing with student examples of using distraction from difficult feelings rather than noticing or exploring the workability of such strategies.

For each school, an average score was calculated for *consistent* and *inconsistent* items, as well the pairs average CompACT score. A Spearman's rank-order correlation was conducted to assess the relationship between these. There was no significant correlation between the average CompACT score and average ACT *consistent* score ($r_s(6) = .66$, $p = ..156$) or average CompACT score and average ACT *inconsistent* score ($r_s(6) = -.725$, $p = .103$).

Sub-domain scores varied according to the aim of the workshop. For instance, the final workshop spent a significant proportion of time discussing values and value-based action, compared to the first two workshops. Therefore, scores on the values based 'Engaged Response' sub-domain were lower for the first two workshops across all schools (Workshop 1: $M = 1.67$, $SD = 1.25$; Workshop 2: $M = 2.5$, $SD = 1.26$) and higher on the last ($M = 7.83$, $SD = 0.69$). The second workshop (Pause, Observe Describe) included discussion and exercises based around mindfulness, and as such scores were also higher on those items within the ACT-FM (largely 'Aware Response Style'). Higher scores on domains for *consistent* observations came from facilitators' personal style and responses

to pupils' answers and discussions, even if they were not manualised to be covered within that workshop. For example, expanding on the script for leading discussions around noticing thoughts, and combining this with workability towards achieving values, whilst accepting the existence of difficult emotions. Overall, time spent going over the recap of the previous workshop, reflecting on key messages, exercises and strategies, and giving time for extra discussions generally, resulted in higher scores on the ACT-FM.

Table 4

Total scores for 'ACT consistent' and 'ACT inconsistent' criteria using the ACT-FM.

		School					
		A	B	C	D	E	F
Lesson 1 Thoughts are Just Thoughts	ACT Consistent	30	21	28	25	22	28
	ACT Inconsistent	0	7	1	5	4	0
Lesson 2 Pause, Observe, Describe	ACT Consistent	29	26	30	27	20	26
	ACT Inconsistent	4	1	0	3	5	0
Lesson 3 Taking Steps Towards What Matters	ACT Consistent	26	27	28	28	27	29
	ACT Inconsistent	0	2	1	2	4	0

Note. Total scores can range from 0-36.

Figure 4

Average scores across schools on the four ACT-FM sub-domains for Workshop 1.
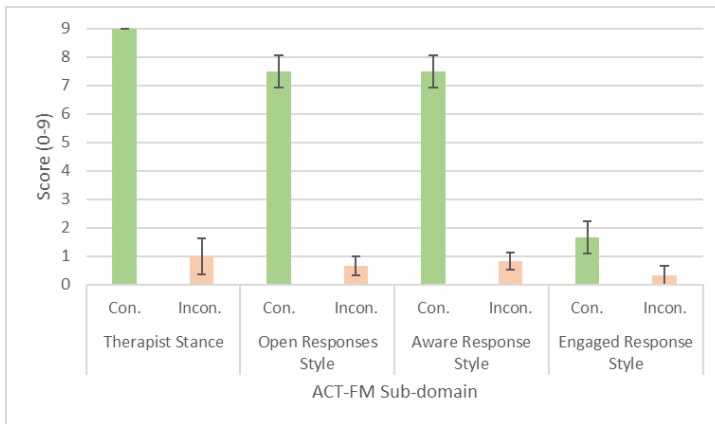
Note. Error bars shown the standard error of the mean.
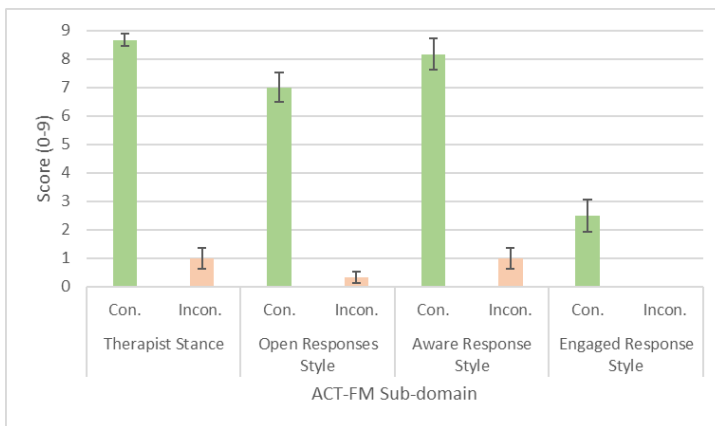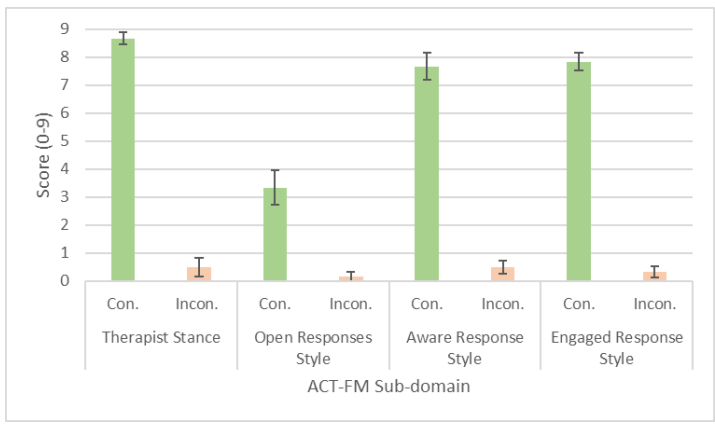
Figure 5

Average scores across schools on the four ACT-FM sub-domains for Workshop 2.

Note. Error bars shown the standard error of the mean.

Figure 6

Average scores across schools on the four ACT-FM sub-domains for Workshop 3.

Note. Errors bars show the standard error of the mean.

Discussion

This study aimed to assess the acceptability and feasibility of training school-based staff to deliver an intervention for secondary school pupils, which aimed to increase psychological flexibility and resilience to daily challenges and feelings. Training satisfaction was assessed using a validated measure and comments post-training. The study also assessed the impact of training on knowledge of ACT-consistent responses when considering situations with students. Feasibility of implementing the intervention was assessed through adherence to the workshop manual, fidelity to ACT-related principles, and delivery of the intervention within the intended overall timeframe and timetable constraints. Potential change in facilitators' own psychological flexibility at follow-up was also measured. Results and conclusions will feed into the revision of future training and use of the intervention.

Training satisfaction scores indicated high acceptability alongside many positive qualitative comments. However, a small number of school staff said they would have preferred face-to-face training, rather than virtual. Training was also assessed using a situational judgement test, developed to assess skill acquisition post-training. School counsellors were more likely to report previous knowledge and awareness of ACT which may account for their higher scores when compared to teachers initially. Overall, there were higher scores post-training where nine (out of fourteen) facilitators scored the highest possible mark, and three scored eight out of a possible nine, suggesting that the training led to increased knowledge of ACT congruent responses. Given that several school counsellors scored highly pre-training, the results may indicate that the current questions are most appropriate for those with limited experience and requires further refinement. Skill acquisition and satisfaction may have been different if face-to-face training had been possible and a comparison of face-to-face training in the future may be helpful.

As one of the most cited and foundational aspects of measuring fidelity within the literature (Moir, 2018; Werner-Seidler et al., 2017), adherence to the treatment manual was measured for all

workshops. The checklist was created to reflect the core components of the intervention relating to

ACT principles and necessary psychoeducation (Plumb & Vilardaga, 2010; Sanetti et al., 2014).

Adherence to the manual was high, with little variation across schools and workshops. This could

have been due to some facilitators seeming to have workshop scripts with them during the delivery.

If intervention delivery was continued over longer periods, adherence may improve with practice, or

conversely with facilitators becoming more confident with the material, greater deviations from the

manual may be observed (Bruhn et al., 2015). Booster training sessions and feedback from training

providers could support greater adherence over time (Hagermoser-Sanetti & Luh., 2020). In future,

the checklist could be given to facilitators for a multi-informant method, to provide a comparison

between independent and self-ratings (Bruhn et al., 2015; Keller-Margulis, 2012) and to potentially

serve as a reminder for facilitators of the key components to cover. It may be useful to understand

how much adherence to the protocol contributes to the variance in fidelity to the underlying

theoretical principles as measured by the ACT-FM (O'Neill et al., 2019a), through a larger sample.

Assessment of fidelity to the principles of ACT (using the ACT-FM, O'Neill et al., 2019a)

benefitted from discussion between raters, as suggested within the literature (Plumb & Vilardaga,

2010). Clarity was sought on how items may relate to a school lesson, given the constraints on time

and learning context of a classroom (i.e., that not all children will be able to discuss responses in

depth and how a 'teaching' style may be rated). There was also discussion with regards to the pre-

defined content of the workshops, such that some sub-domains were scored low simply because

they did not reflect the topic of that workshop. A manualised classroom-based group intervention is

less likely to enable integrated coverage of the full range of ACT processes compared to the fluidity a

one-to-one therapeutic session allows. This may present the need for revisions to the ACT-FM for

group-based interventions, or for the development of differentiated norms for group-interventions,

where a 'high fidelity' score range may differ. However, the measure was deemed user-friendly, and

demonstrated variation across workshops, schools, and sub-domains. Scores highlighted the

workshops' underlying principles to ACT which is important for ensuring its distinction from other

interventions and as an evidence-based intervention (Plumb & Vilardaga, 2010). Higher scores on ACT *consistent* items appeared to correlate with lower scores on *inconsistent* items and implies that those who can more consistently demonstrate behaviours in line with the principles of ACT, may be less likely to bring in ideas and experience from other training, that is inconsistent with ACT. It may also reflect facilitators' understanding of the ACT model and confidence in applying the approach. It may be beneficial to assess this periodically alongside delivering the workshops in the future.

Overtime, facilitators' own psychological flexibility increased. Attending training, and/or the process of delivering the workshops, may have led to an increase in the personal use of ACT skills by the school-based facilitators. It may also be that this process facilitated an increased awareness of the ACT approaches facilitators already engaged in and therefore rated themselves higher. Further exploration of this would be beneficial, especially as it is missing from the literature and not a routinely assessed as a potential factor on the outcomes for recipients. This could include additional data collection points, qualitative exploration, and would require a larger sample.

Strengths and Limitations

The strengths of this paper include the exploration of acceptability of training for school-based staff on training satisfaction and skill acquisition, which is often missing from intervention studies an important aspect to implementing and replicating interventions (Bellg et al., 2004). The assessment of training satisfaction was high, which is positive as satisfaction can have positive associations with commitment, transfer of learning and subsequent engagement in work (Mansour et al., 2017; Memon et al., 2016; Renko et al., 2020). Provision of the training in an online format, which was initiated pragmatically in response to the Covid-19 pandemic, may provide a useful method for training a larger sample, and ensuring consistency (Bellg et al., 2004), while being cost-effective and practical for those delivering the training.

Treatment fidelity has often not been reported in school-based intervention studies and when it has, it is often on adherence to the protocol only (Werner-Seidler et al., 2017). Feasibility of

implementation was explored across several facets including procedural delivery, adherence to the protocol, facilitator competence and fidelity to the theoretical principles (Bellg et al., 2004; Bruhn et al., 2015; Hagermoser-Sanetti & Luh, 2020). Assessing fidelity within ACT studies has been highlighted as poor (Öst, 2014) and measures for adherence to the model often evaluated using intervention specific checklists which precludes comparison across interventions (O'Neill et al., 2019). This is the first known instance of the ACT-FM being used for a group-based intervention and demonstrated the usability of the tool for settings that have distinct factors from individual therapeutic sessions. The importance of discussion between raters for such novel use was carried out with considerable improvement to inter-rater reliability scores, highlighting the benefit for inter-rater checks to fidelity assessment of future intervention studies. This study also highlighted where the ACT-FM may require adjustment for interventions that employ more than one facilitator.

Finally, the change in facilitators' own psychological flexibility is an area that is rarely assessed within the literature (Luoma & Vilardaga, 2013) and in its relation to recipient outcomes. Scores significantly changed, drawing attention to the impact on facilitators of interventions in an area currently unexplored. Given the mediating role which psychological flexibility can have between an ACT intervention and outcomes for adults (Lin et al., 2018; Twohig et al., 2015) it may have additional benefits for facilitators and be important for those working within schools where difficulties including high workloads and stress are prevalent (Travers, 2017) which would benefit from further study. It may be that the transdiagnostic nature of an ACT intervention (Gillard et al., 2018) allows this applicability and potential uptake of relevant strategies not just for those receiving the intervention, but also for those delivering it (R. Harris, 2009). It may also be that facilitator practice of material impacted outcomes of psychological flexibility and may have impacted other outcomes too. Future studies could measure this in relation to both facilitator adherence and psychological flexibility, as well as student outcomes.

The CoACT-Y was created for the purpose of this study as there is currently no alternative measure for assessing ACT congruent actions in relation to working with young people. The existing equivalent measure, the ACT Knowledge Questionnaire (Luoma & Vilardaga, 2013) was developed for use with clinicians. The complexity of terminology and theory within the tool was not considered to match the focus of the current training (i.e., developing ACT congruent skills and ways of responding, rather than learning theory or specific terminology). Whilst there was pragmatic justification for use of the CoACT-Y, the validity of the measure has not been assessed, and the results must be considered cautiously. It will be important that the measure is validated prior to future use which could involve consultation with additional experts within the field via a Delphi panel study approach (Trevelyan & Robinson, 2015), where experts in the field are consulted over several 'rounds'; eliciting item content and refining these, and cognitive interviewing exploring participants' reasoning when responding (Wolcott et al., 2020). Experts may include both professionals within the field and intended participants, where the latter would support comprehensive content validity (Anthoine et al., 2014). Anthoine et al. (2014) found that adequate sample sizes for validation are often not outlined or vary considerably, although studies reviewed had a mean ratio of 28 participants per item. Some recommended larger numbers for validation and statistical analysis through confirmatory, or exploratory, factor analysis (Charter, 1999) and this will need to be considered in the next steps. The measure was administered post-training, but not at a follow-up point, which may have been helpful for assessing whether scores remained consistent and its relationship to aspects of implementation. It is also important to note that whilst scores on situational judgment tests can be predictive of future performance (Patterson et al., 2016; Webster et al., 2020), responses may reflect social desirability, which can be affected by whether questions ask the respondent what they 'would' or 'should' do (Tiffin et al., 2020).

Due to the Covid-19 pandemic, measurement of fidelity relied solely on audio recordings. Missing observation of visual cues and behaviours and may have impacted ratings. This is also true for competence ratings, including responsiveness and engagement. Therefore, indicators relating to

quality and fidelity of delivery may have been missed. Whilst the CompACT (Francis et al., 2016) demonstrated change over time, additional data collection points could help track the pattern and maintenance of this effect. Perceived systemic support from leadership figures may be an important contributing factor to implementation (Hudson et al., 2020) although was not measured. Using the Usage Rating Profile – Intervention (URP-I; Briesch et al., 2013) for example, may have highlighted other key factors to consider when implementing on a wider scale such as support from headteachers (Beets et al., 2008). However, the largest limitation is the sample size for the current study and as such all analysis is exploratory, and any conclusions are tentative requiring a wider evaluation.

Conclusion

Overall, this study demonstrated a successful exploration of the acceptability and feasibility of training school-based staff to deliver a universal mental health intervention in schools. Future research into the feasibility and efficacy of this intervention may wish to assess aspects of fidelity directly in relation to student outcomes. This would support knowledge of how adherent facilitators may need to be to evoke change, and the relation to other indicators such as facilitator competence. The assessment tools used appeared to be appropriate for future iterations of the intervention although the situational judgement questionnaire would need to be validated. Further investigation is now needed with larger samples to fully assess the relationship between different aspects of fidelity and adherence within the delivery of this intervention, and alongside student outcome data.

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Appendices

Appendix A – Author Guidelines for The Association of Child and Adolescent Mental Health

1. Contributions from any discipline that further clinical knowledge of the mental life and behaviour of children are welcomed. Papers need to clearly draw out the clinical implications for mental health practitioners. Papers are published in English. As an international journal, submissions are welcomed from any country. Contributions should be of a standard that merits presentation before an international readership. Papers may assume any of the following forms: Original Articles; Review Articles; Innovations in Practice; Narrative Matters; Debate Articles.

CAMH considers the fact that services are looking at treating young adults up until the age of 25, with the evidence that brains continue to develop until the age of 25, as well as the fact that a lot of issues that affect young adults and students are also relevant and topical to older adolescents. CAMH offers a discretionary approach and will take into consideration papers that extend into young adulthood, if they are pertinent developmentally to the younger population and contribute further to a developmental perspective across adolescence and early adult years.

Authors are asked to remember that CAMH is an international journal and therefore clarification should be provided for any references that are made in submitted papers to the practice within the authors' own country. This is to ensure that the meaning is clearly understandable for our diverse readership. Authors should make their papers as broadly applicable as possible for a global audience.

Original Articles: Original Articles make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research and practice.

Review Articles: These papers offer a critical perspective on a key body of current research relevant to child and adolescent mental health. The journal requires the pre-registration of review protocols on any publicly accessible platform (e.g. The International Prospective Register of Systematic Reviews, or PROSPERO).

Innovations in Practice: These papers report on any new and innovative development that could have a major impact on evidence-based practice, intervention and service models.

Narrative Matters: These papers describe important topics and issues relevant to those working in child and adolescent mental health but considered from within the context and framework of the Humanities and Social Sciences.

Debate Articles: These papers express opposing points of view or opinions, highlighting current evidence-based issues, or discuss differences in clinical practice

2. Submission of a paper to *Child and Adolescent Mental Health* will be held to imply that it represents an original submission, not previously published; that it is not being considered for publication elsewhere; and that if accepted for publication it will not be published elsewhere without the consent of the Editors.

3. Manuscripts should be submitted online. For detailed instructions please go to: **http://mc.manuscriptcentral.com/camh_journal** and *check for existing account* if you have submitted to or reviewed for the journal before, or have forgotten your details. If you are new to the

journal *create a new account.* Help with submitting online can be obtained from the Editorial Office at ACAMH (email: **publications@acamh.org**)

4. Authors' professional and ethical responsibilities

Disclosure of interest form
All authors will be asked to download and sign a full Disclosure of Interests form and acknowledge this and sources of funding in the manuscript.

Ethics
Authors are reminded that the *Journal* adheres to the ethics of scientific publication as detailed in the ***Ethical principles of psychologists and code of conduct*** (American Psychological Association, 2010). These principles also imply that the piecemeal, or fragmented publication of small amounts of data from the same study is not acceptable. The Journal also generally conforms to the Uniform Requirements for Manuscripts of the International Committee of Medical Journal Editors (**ICJME**) and is also a member and subscribes to the principles of the Committee on Publication Ethics (**COPE**).

Informed consent and ethics approval
Authors must ensure that all research meets these ethical guidelines and affirm that the research has received permission from a stated Research Ethics Committee (REC) or Institutional Review Board (IRB), including adherence to the legal requirements of the study county. Within the Methods section, authors should indicate that 'informed consent' has been appropriately obtained and state the name of the REC, IRB or other body that provided ethical approval. When submitting a manuscript, the manuscript page number where these statements appear should be given.

Preprints
CAMH will consider for review articles previously available as preprints. Authors may also post the submitted version of a manuscript to a preprint server at any time. Authors are requested to update any pre-publication versions with a link to the final published article. Please find the Wiley preprint policy **here**.

Note to NIH Grantees
Pursuant to NIH mandate, Wiley-Blackwell will post the accepted version of contributions authored by NIH grant-holders to PubMed Central upon acceptance. This accepted version will be made publicaly available 12 months after publication. For further information, see **www.wiley.com/go/nihmandate**.

Recommended guidelines and standards
The Journal requires authors to conform to CONSORT 2010 (see **CONSORT Statement**) in relation to the reporting of randomised controlled clinical trials; also recommended is the **Extensions of the CONSORT Statement** with regard to cluster randomised controlled trials). In particular, authors must include in their paper a flow chart illustrating the progress of subjects through the trial (CONSORT diagram) and the CONSORT checklist. The flow diagram should appear in the main paper, the checklist in the online Appendix. Trial registry name, registration identification number, and the URL for the registry should also be included at the end of the methods section of the Abstract and again in the Methods section of the main text, and in the online manuscript submission. Trials must be registered in one of the ICJME-recognised trial registries:

Australian New Zealand Clinical Trials Registry
Clinical Trials
Netherlands Trial Register
ISRCTN Registry
UMIN Clinical Trials Registry

Manuscripts reporting systematic reviews or meta-analyses will only be considered if they conform to the **PRISMA Statement**. We ask authors to include within their review article a flow diagram that illustrates the selection and elimination process for the articles included in their review or meta-analysis, as well as a completed PRISMA Checklist. The journal requires the pre-registration of review protocols on any publicly accessible platform (e.g. The International Prospective Register of Systematic Reviews, or PROSPERO).

The **Equator Network** is recommended as a resource on the above and other reporting guidelines for which the editors will expect studies of all methodologies to follow. Of particular note are the guidelines on qualitative work **http://www.equator-network.org/reporting-guidelines/evolving-guidelines-for-publication-of-qualitative-research-studies-in-psychology-and-related-fields** and on quasi-experimental **http://www.equator-network.org/reporting-guidelines/the-quality-of-mixed-methods-studies-in-health-services-research** and mixed method designs **http://www.equator-network-or/reporting-guidelines/guidelines-for-conducting-and-reporting-mixed-research-in-the-field-of-counseling-and-beyond**

CrossCheck
An initiative started by *CrossRef* to help its members actively engage in efforts to prevent scholarly and professional plagiarism. The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscripts to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

5. Manuscripts should be double spaced and conform to the house style of *CAMH*. The title page of the manuscript should include the title, name(s) and address(es) of author(s), an abbreviated title (running head) of up to 80 characters, a correspondence address for the paper, and any ethical information relevant to the study (name of the authority, data and reference number for approval) or a statement explaining why their study did not require ethical approval.

Summary: Authors should include a structured Abstract not exceeding 250 words under the sub-headings: Background; Method; Results; Conclusions.

Key Practitioner Message: Below the Abstract, please provide 1-2 bullet points answering each of the following questions:

- **What is known?** - What is the relevant background knowledge base to your study? This may also include areas of uncertainty or ignorance.
- **What is new?** - What does your study tell us that we didn't already know or is novel regarding its design?
- **What is significant for clinical practice?** - Based on your findings, what should practitioners do differently or, if your study is of a preliminary nature, why should more research be devoted to this particular study?

Keywords: Please provide 4-6 keywords use **MeSH Browser** for suggestions

6. Papers submitted should be concise and written in English in a readily understandable style, avoiding sexist and racist language. Articles should adhere to journal guidelines and include a word count of their paper; occasionally, longer article may be accepted after negotiation with the Editors.

7. Authors who do not have English as a first language may choose to have their manuscript professionally edited prior to submission; a list of independent suppliers of editing services can be found at **http://authorservices.wiley.com/bauthor/english_language.asp**. All services are paid for

and arranged by the author, and use of one of these services does not guarantee acceptance or preference for publication.

8. Headings: Original articles should be set out in the conventional format: Methods, Results, Discussion and Conclusion. Descriptions of techniques and methods should only be given in detail when they are unfamiliar. There should be no more than three (clearly marked) levels of subheadings used in the text.

9. All manuscripts should have an Acknowledgement section at the end of the main text, before the References. This should include statements on the following:

Study funding: Please provide information on any external or grant funding of the work (or for any of the authors); where there is no external funding, please state this explicitly.

Contributorships: Please state any elements of authorship for which particular authors are responsible, where contributorships differ between author group. (All authors must share responsibility for the final version of the work submitted and published; if the study include original data, at least one author must confirm that he or she had full access to all the data in the study and takes responsibility for the integrity of the data in the study and the accuracy of the data analysis). Contributions from others outside the author group should also be acknowledged (e.g. study assistance or statistical advice) and collaborators and study participants may also be thanked.

Conflicts of interest: Please disclose any conflicts of interest of potential relevance to the work reported for each of the authors. If no conflicts of interest exist, please include an explicit declaration of the form: "The author(s) have declared that they have no competing or potential conflicts of interest".

10. For referencing, *CAMH* follows a slightly adapted version of APA Style **http:www.apastyle.org/**. References in running text should be quoted showing author(s) and date. For up to three authors, all surnames should be given on first citation; for subsequent citations or where there are more than three authors, 'et al.' should be used. A full reference list should be given at the end of the article, in alphabetical order.

References to journal articles should include the authors' surnames and initials, the year of publication, the full title of the paper, the full name of the journal, the volume number, and inclusive page numbers. Titles of journals must not be abbreviated. References to chapters in books should include authors' surnames and initials, year of publication, full chapter title, editors' initials and surnames, full book title, page numbers, place of publication and publisher.

11. Tables: These should be kept to a minimum and not duplicate what is in the text; they should be clearly set out and numbered and should appear at the end of the main text, with their intended position clearly indicated in the manuscript.

12. Figures: Any figures, charts or diagrams should be originated in a drawing package and saved within the Word file or as an EPS or TIFF file.
See **http://authorservices.wiley.com/bauthor/illustration.asp** for further guidelines on preparing and submitting artwork. Titles or captions should be clear and easy to read. These should appear at the end of the main text.

13. Footnotes should be avoided, but end notes may be used on a limited basis.

Data Sharing and Supporting Information

CAMH encourages authors to share the data and other artefacts supporting the results in the paper by archiving them by uploading it upon submission or in an appropriate public repository. Examples of possible supporting material include intervention manuals, statistical analysis syntax, and experimental materials and qualitative transcripts.

1. If uploading with your manuscript please call the file 'supporting information' and reference it in the manuscript.
2. Please note supporting files are uploaded with the final published manuscript as supplied, they are not typeset.
3. On publication your supporting information will be available alongside the final version of the manuscript online.
4. If uploading to a public repository please provide a link to supporting material and reference it in the manuscript. The materials must be original and not previously published. If previously published, please provide the necessary permissions. You may also display your supporting information on your own or institutional website. Such posting is not subject to the journal's embargo date as specified in the copyright agreement. Supporting information is made free to access on publication.

Full guidance on Supporting Information including file types, size and format is available on the **Wiley Author Service** website.

For information on Sharing and Citing your Research Data see the **Author Services website here**.

Original Articles

Original Articles make an original contribution to empirical knowledge, to the theoretical understanding of the subject, or to the development of clinical research and practice. Adult data is not usually accepted for publication unless it bears directly on developmental issues in childhood and adolescence.

Your Original Article should be no more than 5,500 words including tables, figures and references.

Review Articles

Research Articles offer our readers a critical perspective on a key body of current research relevant to child and adolescent mental health and maintain high standards of scientific practice by conforming to systematic guidelines as set out in the **PRISMA statement**. These articles should aim to inform readers of any important or controversial issues/findings, as well as the relevant conceptual and theoretical models, and provide them with sufficient information to evaluate the principal arguments involved. All review articles should also make clear the relevancy of the research covered, and any findings, for clinical practice.

Your Review Article should be no more than 8,000 words excluding tables, figures and references and no more than 10,000 including tables, figures and references.

Innovations in Practice

Innovations in Practice promote knowledge of new and interesting developments that have an impact on evidence-based practice, intervention and service models. These might have arisen through the application of careful, systematic planning, a response to a particular need, through the continuing evolution of an existing practice or service, or because of changes in circumstances

and/or technologies. Submissions should set out the aims and details of the innovation including any relevant mental health, service, social and cultural contextual factors, and give a close, critical analysis of the innovation and its potential significance for the practice of child and adolescent mental health.

Due to the short length of this article type, your Innovations in Practice article should be no more than 2,200 words including tables, figures and references and contain no more than 8 references.

Narrative Matters: The Medical Humanities in CAMH

These articles are both submissions and directly commissioned papers. They will be peer-reviewed. The articles should be on a humanities topic relevant to those working in child and adolescent mental health. The topics can include but are not restricted to: aspects of child mental health service history; representations of abnormal mental states or mental illness in children and teenagers in film, literature or drama; depictions of child mental health clinicians within popular culture; ethical dilemmas in the speciality. Interest and originality are valued. If in doubt, please contact the section editor: **Gordon.Bates@covwarkpt.nhs.uk**. The essays should be between 1500 and 2000 words and written for an audience of child mental health professionals. For publishing reasons, there is an upper limit of 8 references for the article. Additional references may be given in the text if necessary.

Debate Articles

Our debate articles express opposing points of view or opinions, highlighting current evidence-based issues, or discuss differences in clinical practice. Although discussion of evidence is welcome, these articles generally do not include primary data. The evidence on which your arguments are based and how that was sourced should be explicit and referenced, and the quality of your evidence made clear.

Due to the short length of this article type, your Debate article should be no more than 1,000 words and contain no more than 8 references. If in doubt, please contact the section editor **Rachel.Elvins@mft.nhs.uk**

Manuscript Processing

Peer Review Process: All material submitted to CAMH is only accepted for publication after being subjected to external scholarly peer review, following initial evaluation by one of the Editors. Both original and review-type articles will usually be single-blind reviewed by a minimum of two external referees and only accepted by the decision Editor after satisfactory revision. Any appeal of an editorial decision will first be considered by the initial decision Editor, in consultation with other Editors. Editorials and commissioned editorial opinion articles will usually be subject to internal review only, but this will be clarified in the published Acknowledgement section. Editorial practices and decision making will conform to COPE **http://publicationethics.org/resources/guidelines** and ICMJE **http://icmje.org/** best practice.

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Authors will receive an e-mail notification with a link and instructions for accessing HTML page proofs online. Page proofs should be carefully proofread for any copyediting or typesetting errors. Online guidelines are provided within the system. No special software is required, all common browsers are supported. Authors should also make sure that any renumbered tables, figures, or references match text citations and that figure legends correspond with text citations and actual figures. Proofs must be returned within 48 hours of receipt of the email. Return of proofs via e-mail is possible in the event that the online system cannot be used or accessed.

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In accordance with **Wiley's Best Practice Guidelines on Research Integrity and Publishing Ethics** and the **Committee on Publication Ethics' guidance**, *CAMH* will allow authors to correct authorship on a submitted, accepted, or published article if a valid reason exists to do so. All authors – including those to be added or removed – must agree to any proposed change. To request a change to the author list, please complete the **Request for Changes to a Journal Article Author List Form** and contact either the journal's editorial or production office, depending on the status of the article. Authorship changes will not be considered without a fully completed Author Change form. Correcting the authorship is different from changing an author's name; the relevant policy for that can be found in **Wiley's Best Practice Guidelines** under "Author name changes after publication."

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Appendix B: TIDieR Checklist Reporting Page Numbers and Details for Replication of Targeted Intervention Studies

	Targeted Intervention Paper					
TIDier Item	**Brown et al. (2019)**	**Chiumento et al. (2018)**	**Pluess et al. (2017)**	**Stallard et al. (2012)**	**Weeks et al. (2017)**	**Total (by checklist item)**
1. Name of intervention	150	2	2	2	4	**100%**
2. Rationale	152-153	2	2	2	3-4	**100%**
3. Materials	153	-	5-6[a]	-	-	**40%**
4. Intervention activities	153[b]	3	5-6	-	-	**60%**
5. Facilitator	153	2	5	2	5	**100%**
6. Mode of delivery	153	1, 3	5	2	5	**100%**
7. Setting	153	3	5	2	5, 10	**100%**
8. Dosage	153	2	5	2	5	**100%**
9. Planned adaptations	-	-	-	-	-	**0%**
10. Modifications	-	-	-	-	-	**0%**
11. Planned fidelity checks	-	-	6	-	-	**20%**
12. Actual fidelity checks	-	-	6	3	-	**40%**
Total (by paper)	**67%**	**58%**	**83%**	**67%**	**50%**	

[a] The original intervention guide referenced has since been adapted and further information can be found at https://partnershipforchildren.org.uk/what-we-do/programmes-for-schools/spark-resilience.html;

[b] Further information can be found in an earlier trial of the intervention (Sclare et al., 2015)

Appendix C: TIDieR Checklist Reporting Page Numbers and Details for Replication of Universal Intervention Studies

	Universal Intervention Paper										
TIDier Item	Boniwell et al. (2016)	Challen et al. (2014)	Eisenstein et al. (2019)	Huppert et al. (2010)	Kuyken et al. (2013)	Platt et al. (2020)	Proctor et al. (2011)	Punukollu et al. (2020)	Rice et al. (2015)	Wigelsworth et al. (2013)	Total (by checklist item)
1. Name of intervention	87	76	59	266	126	4	379	507	321	98	**100%**
2. Rationale	86	76	58-59	264-267	126-127	2-4	377-379	507	321	97-98	**100%**
3. Materials	87	77	59	267	126	-	383[a]	-[b]	Appendix	101[c]	**70%**
4. Intervention activities	88-89	Appendix [d]	59	267	-	4-5	382-383[a]	-[b]	321-322; Appendix	101[c]	**80%**
5. Facilitator	87	78	59	266	127	5	383	-	321; Appendix	101	**90%**
6. Mode of delivery	86	77-78	-	267	127	4	383	507	321	-	**80%**
7. Setting	86	78	-	267	127	4	382-383	-	321	-	**70%**
8. Dosage	86	78	59	267	126-127	4-5	383	-	321	-	**80%**
9. Planned adaptations	-	-	-	-	-	-	-	513	-	-	**10%**
10. Modifications	-	-	-	-	-	5	-	-	-	-	**10%**
11. Planned fidelity checks	-	-	-	-	-	-	-	-	322; Appendix	100	**20%**
12. Actual fidelity checks	-	82-84	-	-	-	-	-	-	322; Appendix	-	**20%**
Total (by paper)	**67%**	**75%**	**50%**	**67%**	**58%**	**67%**	**67%**	**33%**	**83%**	**50%**	

[a]Materials have since been adapted and can be purchased ("Strengths Gym: Build and exercise your strengths"); [b] Further information and resources can be found at https://safespot.org.uk; [c] Further information and resources can be found at http://sealcommunity.org/category/member-resources/classroom-activities-and-resources-secondary; [d] Further information can be found at https://ppc.sas.upenn.edu/research/resilience-children.

Appendix D: Author Guidelines for the Journal of School Psychology

Article structure

Subdivision - unnumbered sections
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

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Powertech Systems. (2015). *Lithium-ion vs lead-acid cost analysis*. Retrieved from
http://www.powertechsystems.eu/home/tech-corner/lithium-ion-vs-lead-acid-cost-analysis/.
Accessed January 6, 2016
Reference to a dataset:
[dataset] Oguro, M., Imahiro, S., Saito, S., & Nakashizuka, T. (2015). *Mortality data for Japanese oak wilt disease and surrounding forest compositions*. Mendeley Data, v1.
https://doi.org/10.17632/xwj98nb39r.1.
Reference to a conference paper or poster presentation:
Engle, E.K., Cash, T.F., & Jarry, J.L. (2009, November). *The Body Image Behaviours Inventory-3: Development and validation of the Body Image Compulsive Actions and Body Image Avoidance Scales*. Poster session presentation at the meeting of the Association for Behavioural and Cognitive Therapies, New York, NY.
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Coon, E., Berndt, M., Jan, A., Svyatsky, D., Atchley, A., Kikinzon, E., Harp, D., Manzini, G., Shelef, E., Lipnikov, K., Garimella, R., Xu, C., Moulton, D., Karra, S., Painter, S., Jafarov, E., & Molins, S. (2020, March 25). *Advanced Terrestrial Simulator (ATS) v0.88 (Version 0.88)*. Zenodo.
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Appendix E: Ethical approval

From: psychethics <psychethics@cardiff.ac.uk>
Sent: 29 September 2020 11:47
To: Victoria Samuel <SamuelV3@cardiff.ac.uk>
Subject: Ethics Feedback - EC.17.11.14.5006R6A6

Dear Victoria,

The Ethics Committee has considered the amendment to your Staff project proposal: Training School Counsellors & Pastoral Care Staff to Deliver a Brief Non-Targeted ACT Intervention in Schools (InTER-ACT2): Training Satisfaction, Fidelity & Efficacy (EC.17.11.14.5006R6A6).

The amendment has been approved.

Please note that if any changes are made to the above project then you must notify the Ethics Committee.

Best wishes,
Adam Hammond

School of Psychology Research Ethics Committee

Cardiff University	Prifysgol Caerdydd
Tower Building	Adeilad y Tŵr
70 Park Place	70 Plas y Parc
Cardiff	Caerdydd
CF10 3AT	CF10 3AT
Tel: +44(0)29 208 70360	Ffôn: +44(0)29 208 70360
Email: psychethics@cardiff.ac.uk	E-
http://psych.cf.ac.uk/aboutus/ethics.html	bost: psychethics@caerdydd.ac.uk

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Appendix F: Gatekeeping letter for schools

Address of School
[Date]

Dear [school contact],

We are two Trainee Clinical Psychologists on the South Wales Doctoral Programme in Clinical Psychology and we are looking to carry out a study on school-based interventions as part of our university course. We are writing to enquire whether you would be interested in allowing us to involve students from your school with the project. Further details can be found below:

Project title: Training School Counsellors & Teachers/Pastoral Care Staff to Deliver a Brief Non-Targeted ACT Intervention in Schools (INTER-ACT2): Training Satisfaction, Fidelity & Efficacy.

Supervisors: Dr Victoria Samuel (*Senior Research Tutor, South Wales Doctoral Programme in Clinical Psychology,* Cardiff University) and Dr Chloe Constable (*Clinical Psychologist, Children and Young People Service*, 2GETHER NHS Foundation Trust)

Description of project:

Background
It is estimated that 1 in 10 children in the UK have a mental health difficulty. However, only 25% of children and young people with a mental health difficulty have been able to access mental health services. This has led to recommendations that preventative mental health work in schools and evidence-based practice is needed. The project will be evaluating a new type of workshop to improve the well-being of young people and increase their resilience when encountering stressful experiences. The workshop is informed by a new type of Cognitive Behavioural Therapy (CBT), called Acceptance and Commitment Therapy (ACT).

ACT aims to encourage individuals to develop greater flexibility in how they relate to difficult thoughts and feelings so they can focus on working towards what is important to them. Research suggests that ACT is valued by young people and can be helpful in reducing stress and improving well-being. Earlier research (INTER-ACT1) found these ACT workshops to be more acceptable to young people than a parallel Cognitive Behaviour Therapy (CBT) workshop, as well as feasible to deliver in a school setting. This stage of the study aims to:
- explore whether school counsellors and pastoral care staff can deliver the workshops
- evaluate whether these whole classroom workshops may improve outcomes for the young people attending.

Your Schools Involvement
A counsellor already attached to your school and a member of the teaching or pastoral care team, will deliver these workshops to a class of students in Key Stage 3 (years 7-9) in your school. The teacher or pastoral care staff member identified to co-facilitate these workshops will attend a two-day training course alongside the school counsellor.

Following the training, this pair will be supported by the research team to deliver 3 workshops, allocating lesson slots for delivery over a 5-week period. Our plan would be to compare students attending the ACT workshops with another class of students attending their standard PSHE lessons. This would allow us to make comparisons between both classes. The workshops have been

developed by psychologists with specialist training in this area. The workshops do not involve providing students with therapy, they are focused on teaching skills to build resilience based on the ideas of ACT.

Student's Involvement
To evaluate the workshops, we will ask the students in both classes to complete a set of questionnaires at several timepoints (before the first workshop, after the last workshop and at a 6 week follow up). This will be to assess for any changes in wellbeing, psychological flexibility and mental distress.

We will ask students who received the intervention if they would like to take part in short discussions about the intervention, as part of a future project.

Overall, the support that would be required from the school would be:
- Scheduling the workshops within the school curriculum
- Allowing us to contact all parents/carers of Key Stage 3 (years 7-9) students to inform them about the project and seek opt-out consent for completion of the questionnaires
- Facilitating the researchers to collect data as outlined above.

I would be grateful if you could let us know whether the workshops are something that might be of interest to your school. We are happy to answer any questions you may have, and our contact details can be found below. Many thanks in advance for your consideration of this project.

Regards,

Aless Roberts and Laura Knight

Aless Roberts	Laura Knight	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
robertsa31@cardiff.ac.uk	Knightl5@cardiff.ac.uk	SamuelV3@cardiff.ac.uk	Chloe.constable@nhs.net
02920 870582	02920 870582	02920 870582	
School of Psychology, Cardiff University	School of Psychology, Cardiff University	School of Psychology, Cardiff University	CAMHS,
Tower Building,	Tower Building,	Tower Building,	2gether NHS
70 Park Place	70 Park Place	70 Park Place	Foundation Trust,
Cardiff	Cardiff	Cardiff	England
CF10 3AT	CF10 3AT	CF10 3AT	

Appendix G: Information sheet for school counsellors and teachers/pastoral care staff

Study name: *Training School Counsellors & Teachers/Pastoral Care Staff to Deliver a Brief Non-Targeted ACT Intervention in Schools (InTER-ACT2): Training Satisfaction, Fidelity & Efficacy.*

Introduction

You are being invited to take part in a research study to help us learn more about whether it is possible to train school counsellors and teachers/pastoral care staff to provide short workshops for secondary school students to help them manage stress and build resilience.

Before agreeing to take part, it is important that you read the information and make your own decision about whether you would like to be involved or not.

Please ask us if you have any questions or would like further information.

The researchers

The research project is being carried out by two Trainee Clinical Psychologists (Laura Knight and Aless Roberts) on the South Wales Doctoral Programme in Clinical Psychology. The research is being undertaken as part of the university course. The project is being supervised by Dr Victoria Samuel (Senior Research Tutor, South Wales Doctoral Programme in Clinical Psychology) and Dr Chloe Constable (*Clinical Psychologist, Children and Young People Service*, 2GETHER NHS Foundation Trust).

What is the research project about?

The aim of the research project is to find out whether it is possible to train school counsellors and teachers/pastoral care staff to deliver short workshops to secondary school students to help them learn ways to manage stress and build resilience. These groups will be based on the principles of Acceptance and Commitment Therapy (ACT). ACT helps people to change how they relate to difficult thoughts and emotions and helps them to take action to live life in line with their values. This is a widely used approach which has been shown to be effective in treating a wide range of mental health problems across age groups, including young people.

Why are you doing the research project?

Research tells us that a significant percentage of secondary school students experience mental health difficulties and can feel stressed at times. We are interested in knowing more about whether teaching young people ACT skills might be a way to help them feel less stressed and be more able to cope. School counsellors, teachers and pastoral care staff have been identified as suitable to deliver the workshops due to their skill sets in working within the classroom and supporting students around wellbeing.

What will I be doing if I decide to take part?

This research will involve school counsellors, teachers and pastoral care staff from a range of different schools attending a two-day training program delivered by Clinical Psychologists who developed the ACT workshop and who are experienced in working with children.

These training days will be held on a Friday 18th and Saturday 19th September 2020.

This training program will teach the core principles of ACT as well as practical training on how to deliver the three session workshops to students. All participants will be given detailed workshop protocols and full PowerPoint slides for each workshop. The online training will be video recorded to enable subsequent viewing by other school staff or school counsellors.

Staff receiving the training will be asked to complete questionnaires which look at knowledge before and after the training, satisfaction with the training and levels of a construct called 'psychological flexibility'. Staff will also be asked to complete a brief background information questionnaire prior to completing the training. Lastly, we will also ask you to complete a final questionnaire on psychological flexibility after you have delivered the final workshop.

Each pair (1 school counsellor and 1 teacher or member of the pastoral care team) will then deliver the workshops to one class of Key Stage 3 (years 7-9) students in their schools. Each of these workshops will need to be audio recorded using an encrypted device to enable the researchers to assess how closely the delivery of the workshops is consistent with ACT principles. The pair facilitating the workshops will be responsible for audio recording the workshops, however clear instructions on how to do this will be provided by the research team.

The workshops will be delivered as part of the PSHE curriculum; therefore, the students will attend the workshops as part of their usual timetable. We are planning that the three workshops (each lasting 1 hour), will be delivered within a 5-week period, over October and November 2020.

Prior to delivering the workshops, each school staff member will be asked to provide a list of classes from Key Stage 3 (years 7-9) of their school so that the researchers are able to randomly allocate one class to receive the intervention (the ACT workshops) and one class to receive PSHE lessons as normal. This will allow the researchers to compare the two groups.

Before, during and after the delivery of the three session workshops, the students in both groups will be asked to complete questionnaires on their well-being, quality of life, perceived stress and anxiety and depression. Each school staff member will be asked to support students from both these classes to create a unique identifier, which students will enter when completing their questionnaires. This ensures the researchers are not able to identify pupils by name when scoring their questionnaires. These unique identifiers will be held by the school so that pupils can be identified if their scores show high levels of distress and safeguarding procedures can be followed. The process of how to create the unique identifier will be provided to each school staff member by the researchers during training.

Do I have to take part?
No, it is up to you whether you want to take part or not.

What if I decide to take part but change my mind later on?
To ensure the students receive the full workshop package, we will require a commitment from you to deliver all three workshops in your school. However, if you decide you do not want to continue taking part in the evaluation element of the project you can withdraw at any stage, and you can ask the research team to discard any information gathered from you up to 1 week following the delivery of the last workshop.

How will my information be used?

Consent forms will contain the names of participants and will need to be retained for five years in accordance with Data and Record Management. These will be held securely and separately from the study data.

The questionnaires and the background information form you complete before and after the training program will contain your name and your associated school and be stored securely in password protected electronic files/databases or locked filing cabinets at Cardiff University. This information will be made anonymous once analysis has taken place, which will be within 4 months of the final

workshop. The anonymised information will be kept for up to 5 years in password protected electronic files/databases or locked filing cabinets at Cardiff University and deleted after this time.

Each workshop will be audio recorded using an encrypted voice recorder. The content of the recordings will be kept confidential (only shared with the research team), unless something is said which makes us think you or somebody else may be at risk. If this situation arises, we will discuss this with you first wherever possible and share our concerns with the headteacher or safeguarding lead. The recordings will be stored securely in password protected electronic files/databases or locked filing cabinets at Cardiff University and deleted immediately after analysis is completed which will be within 4 months of the final workshop.

The research project is being completed as part of a Doctorate of Clinical Psychology (university course for postgraduate students). The information will be used in a written report (which may later be used for teaching/training or published for wider audiences to read), but it will not be possible to identify which students or staff members took part or link any person to the information they have shared with us.

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper CooperM1@cardiff.ac.uk. The lawful basis for the processing of the data you provide is consent**.**

What can I do if I have concerns about the research project?
You can speak directly to a member of the research team, and they can be contacted using the contact information below. Alternatively, you can contact the Director of the Doctoral Programme in Clinical Psychology. Address: 11th Floor, School of Psychology, Tower Building, 70 Park Place, Cardiff, CF10 3AT. Telephone: 02920 870582

Who has reviewed the study?
The research project has been approved by Cardiff University School of Psychology ethics committee. They have reviewed the study to ensure we are running it in a way which protects your rights and your safety.

If you have any questions relating to ethical issues and how this study is reviewed to ensure the well-being of the individuals who participate, please contact the Cardiff University School of Psychology Ethics Committee:
School of Psychology Research Ethics Committee
Email: psychethics@cardiff.ac.uk
Tel: 029 20870360

Are there any risks or disadvantages to taking part?
We anticipate there to be minimal risks to taking part in the project. The nature of the workshops means that we might be asking you to consider student mental health and well-being. It is possible this may be upsetting, and we would encourage you to talk to somebody from the research team if this is the case.

Additionally, it is possible that learning a new way of relating to emotional experiences and considering your own emotions during the training program may potentially be difficult, however this is felt to be very low risk. In order to address this potential issue, all staff receiving the training package will be fully debriefed and provided with information about where to seek support should they be in any distress.

What are the benefits of taking part?
We are hoping to use the information gathered in this research project to evaluate whether this type

of intervention is feasible and practical for delivery in schools. We hope you will be pleased to know that your involvement helps us to continue to develop interventions to help support the emotional wellbeing of young people.

Contact details

Aless Roberts	Laura Knight	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
robertsa31@cardiff.ac.uk	Knightl5@cardiff.ac.uk	SamuelV3@cardiff.ac.uk	Chloe.constable@nhs.net
02920 870582	02920 870582	02920 870582	
School of Psychology,	School of Psychology,	School of Psychology,	CAMHS,
Cardiff University	Cardiff University	Cardiff University	2gether NHS Foundation
Tower Building,	Tower Building,	Tower Building,	Trust, England
70 Park Place	70 Park Place	70 Park Place	
Cardiff	Cardiff	Cardiff	
CF10 3AT	CF10 3AT	CF10 3AT	

Appendix H: Consent form for school counsellors and pastoral care staff (electronic)

School of Psychology, Cardiff University

Consent Form - Confidential data

[ ] I have read the information sheet and have had the opportunity to ask questions.

[ ] I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason. I am also free to ask any questions or discuss my concerns with Dr Victoria Samuel (project supervisor).

[ ] I understand that the information I provide will be held confidentially, such that only the research team can trace this information back to me individually.

[ ] I understand that the information I provide will be retained for up to five years when it will be deleted/destroyed. I understand that I can ask for the information I provide to be deleted/destroyed up to 1 week after the delivery of the last workshop and I can have access to the information at any time.

[ ] I understand that the anonymised data I provide will be submitted as part of a doctoral thesis and for publication in a peer reviewed journal. I understand that the anonymised data may also be used for teaching or training purposes.

[ ] I understand that the online training I attend will be video recorded to enable subsequent viewing by other school staff or school counsellors.

[ ] I understand that I will be required to audio record the workshops I deliver using a secure encrypted device.

Please check the box below if you happy to be contacted about being involved in further research that follows on from this project. This would involve taking part in interviews / a focus group at a later stage, focusing on your experience of learning ACT and implementing the training with young people.

☐

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper CooperM1@cardiff.ac.uk. The lawful basis for the processing of the data you provide is consent**.**

I, _____(NAME) consent to participate in the study conducted by Laura Knight and Aless Roberts, School of Psychology, Cardiff University with the supervision of Dr Victoria Samuel.

Signed:

Date:

Appendix I: Debrief for school counsellors and teachers/pastoral care staff

Study: Training School Counsellors & Teachers/Pastoral Care Staff to Deliver a Brief Non-Targeted ACT Intervention in Schools: Training Satisfaction, Fidelity & Efficacy.

Thank you

Thank you for participating in this research study. The information you have provided will help us to evaluate if short workshops for secondary school students are useful and practical to run in schools. We will use this information to help us plan future research projects to continue investigating if providing workshops in this way can help young people to decrease stress and build resilience. We appreciate the time you have given to the research project.

What was this study about?

This study aimed to determine if it is possible to train school counsellors, teachers and pastoral care staff to provide brief ACT workshops in secondary schools. School counsellors, teachers and pastoral care staff attended a two-day training program on how to deliver the ACT workshops and were asked to complete a variety of questionnaires on their knowledge before and after the training, satisfaction with the training and levels of a construct called 'psychological flexibility'. School counsellors and teachers/pastoral care staff then delivered the three session ACT workshops to Key Stage 3 (years 7-9) students in their associated school, and their delivery of these workshops was assessed by the researchers in terms of how well they kept to the training package. Outcomes for the students in terms of their mental health, quality of life and wellbeing were also assessed before, during and after the workshops.

Data protection

The recordings from the focus group will be kept confidential and stored in password protected documents or locked filing cabinets at Cardiff University. This information will be confidential and will be deleted after 5 years. If, following completing the study, you decide you would like to withdraw your data, you can contact the researchers up to one week after delivering the final workshop and your data will be withdrawn without any explanation needed.

Contact details

If you would like any further information or have any questions, please contact us using the information below:

Aless Roberts	Laura Knight	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
robertsa31@cardiff.ac.uk 02920 870582	Knightl5@cardiff.ac.uk 02920 870582	SamuelV3@cardiff.ac.uk 02920 870582	Chloe.constable@nhs.net
School of Psychology, Cardiff University Tower Building, 70 Park Place Cardiff CF10 3AT	School of Psychology, Cardiff University Tower Building, 70 Park Place Cardiff CF10 3AT	School of Psychology, Cardiff University Tower Building, 70 Park Place Cardiff CF10 3AT	CAMHS, 2gether NHS Foundation Trust, England

If you have any questions relating to ethical issues and how this study is reviewed to ensure the well-being of the individuals who participated, please contact the Cardiff University School of Psychology Ethics Committee:
School of Psychology Research Ethics Committee
Email: psychethics@cardiff.ac.uk
Tel: 029 20870360

The data controller is Cardiff University and the Data Protection Officer is Matt Cooper
CooperM1@cardiff.ac.uk. The lawful basis for the processing of the data you provide is consent.

Appendix J: Background questionnaire for teachers

1. Please provide your age
   - 16-24
   - 25-34
   - 35-44
   - 45-54
   - 55-64
   - 65-74
   - 65-69
2. How would you identify your gender?
   - [Text entry box]
   - Prefer not to say

3. Please write your name

4. Please describe your role within the school. Please write down if you have multiple roles and what these are.

5. How many years have you been working in this role/these roles?

   <1year   1-5 years   6-10 years   10+ years

6. How many years have you been working at this school?

   <1year   1-5 years   6-10 years   10+ years

7. How much of your time is spent teaching?

   1 day a week 2-3 days a week   4-5 days a week

   I do not teach formal lessons; my role involves providing pastoral support when needed

   If none, next question skipped.

8. How much of this teaching time is spent teaching PSHE/wellbeing lessons? Please select the statement that most applies to you.
   - I only teach PSHE/wellbeing
   - I mostly teach PSHE/wellbeing and occasionally teach other school subjects
   - I teach both PSHE/wellbeing and other school subjects in equal amounts
   - I mostly teach other school subjects and occasionally teach PSHE/wellbeing
   - I only teach other school subjects
   - Other

9. Please indicate which statement most applies to your role:
   - I always work with groups/classes of students.
   - I mostly work with groups/classes of students but occasionally provide 1:1 sessions.
   - I provide both group/class and 1:1 sessions in equal amounts.
   - I mostly work 1:1 with students but occasionally work with groups/classes.
   - I always work 1:1 with students.

10. How many days of mental health/counselling related training have you received in your career?

    None   1-3 days   4-6 days   7-9 days   10+ days

(If training was indicated, the following questions 11 – 14 were displayed)

11. Who provided this training?

12. What was the content of the training?

13. What was the duration of this training?

14. Do you have any qualifications in counselling or mental health? If yes, please give details.

15. Had you heard of Acceptance and Commitment Therapy (ACT) before being invited to this training?

    Yes   No   Unsure

16. Have you ever received any prior training in ACT?

    Yes   No   Unsure

    If yes, please write below what this training involved, who it was delivered by and the length of the training.

Appendix K: Background questionnaire for school counsellors

1. Please provide your age
   - 16-24
   - 25-34
   - 35-44
   - 45-54
   - 55-64
   - 65-74
   - 65-69
2. How would you identify your gender?
   - [Text entry box]
   - Prefer not to say
3. Please write your name

4. How many years have you been working as a school counsellor?

   <1year   1-5 years   6-10 years   10+ years

5. How many years have you been involved with this school?

   <1year   1-5 years   6-10 years   10+ years

6. Please indicate which statement most applies to your role as a school counsellor:
   - I always work with groups/classes of students.
   - I mostly work with groups/classes of students but occasionally provide 1:1 sessions.
   - I provide both group/class and 1:1 sessions in equal amounts.
   - I mostly work 1:1 with students but occasionally work with groups/classes.
   - I always work 1:1 with students.
7. Had you heard of Acceptance and Commitment Therapy (ACT) before being invited to this training?

   Yes   No   Unsure

8. Have you ever received any prior training in ACT?

   Yes   No   Unsure

9. If yes, please write below what this training involved, who it was delivered by and the length of the training:

Appendix L: Training Satisfaction Questionnaire

1. In my opinion the planned objectives were met.
2. The issues were dealt with in as much depth as the length of the course allowed.
3. The length of the course was adequate for the objectives and content.
4. The method was well suited to the objectives and content.
5. The method used enabled us to take an active part in training.
6. The training enabled me to share professional experiences with colleagues.
7. The training was realistic and practical.
8. The documentation given out was of good quality.
9. The training context was well suited to the training process.
10. The training received is useful for my specific job.
11. The training received is useful for my professional development.
12. The training merits a good overall rating.

Appendix M: Situational judgement questionnaire: Congruent ACT responses with Young people (CoACT-Y)

1) A young person tells you they feel really sad and don't understand why. Do you:

    a. Explain that certain people are more prone to depression than others and this may be genetic.

    b. Outline how we all feel down at times and it's not always clear why.

    c. Suggest some of the things that might be making them feel down and ask about each of these.

2) Some important exams are coming up and a young person tells you that they keep thinking 'I'm going to mess them up'. Do you:

    a. Suggest they think more positively and recommend an alternative thought such as 'I can succeed'.

    b. Reassure them that they are able and how you believe in them.

    c. Reassure them that our minds like to think the worst, but thoughts are just thoughts and are not always true.

3) A young person who loves drama wants to audition for the school play but tells you that they may not try this year as they have been feeling anxious every time they think about auditions. Do you:

    a. Remind him how well they did when they played the lead role last year and how proud their family were when they came to watch.

    b. Suggest they try not to think about the auditions in advance and recommend some distraction techniques.

    c. Reassure them that anxiety can often show up when we are coming up to something that really matters to us.

4) A young person tells you "I'm stupid" after getting a question wrong in front of their classmates. Do you:

    a. Explain that our minds like to give us messages about ourselves all day long, and they are not always helpful or true.

    b. Help the young person challenge their thought by reminding them of when they have answered questions correctly.

    c. Distract the young person by talking to them about something positive.

5) A young person tells you that they keep feeling overwhelmed by worries for the future. Do you:

    a. Help the young person to make a list of all the things they are worried about and work through them one by one.

    b. Explain that when we are stressed our minds often like to time travel to the future and suggest some simple ways to help the young person focus on the present using their five senses.

    c. Tell the young person that you think they might have anxiety and suggest they talk to their parents about making an appointment with their doctor.

6) Which of these following statements made by a young person demonstrate that they are thinking about their values?

    a. "I want to be loyal and kind to my friends"

    b. "I want to be captain of the rugby team this year"

    c. "I want to stop getting bad grades on my work"

7) A young person tells you they don't agree with some of the things their friends say but they would feel too embarrassed to disagree with them. Do you:

    a. Explain that his friends shouldn't make him feel embarrassed.

    b. Talk with the young person about the kind of things that are important to them and explain that difficult feelings may come up even if we do what feels right.

    c. Discuss ways to avoid these situations so that they can hopefully reduce the likelihood they feel embarrassed.

8) A young person says they feel useless as they have been trying to support their friend for the last few weeks, but the friend is still upset. Would you:

    a. Help them to think about the kind of qualities they have demonstrated when supporting their friend and whether these things match what they want to stand for.

    b. Suggest they maybe give their friend some space.

    c. Explain that sometimes things do not get better immediately.

9) A young person you work with, who is passionate about sport, tells you they have anxiety and so they don't feel able to take part in sports matches anymore. They describe how they keep doubting their ability and feel stressed about this. Do you:

    b. Suggest that to reduce their anxiety it would important to take some pressure off themselves and wait until they feel more confident before taking part in any more matches.

    c. Help them explore what it is about sport that brings a sense of purpose and help them to see that we can do things that matter to us even if anxiety and doubts keep showing up.

    d. Reassure them that they have no reason to doubt themselves and share some feedback you've heard recently from the head of PE about how skilled they are at the sport.

Appendix N: Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT) questionnaire

Please rate the following 23 statements using the scale below:

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

1. I can identify the things that really matter to me in life and pursue them.
2. One of my big goals is to be free from painful emotions.
3. I rush through meaningful activities without being really attentive to them.
4. I try to stay busy to keep thoughts or feelings from coming.
5. I act in ways that are consistent with how I wish to live my life.
6. I get so caught up in my thoughts that I am unable to do the things that I most want to do.
7. I make choices based on what is important to me, even if it is stressful.
8. I tell myself that I shouldn't have certain thoughts.
9. I find it difficult to stay focused on what's happening in the present.
10. I behave in line with my personal values.
11. I go out of my way to avoid situations that might bring difficult thoughts, feelings, or sensations.
12. Even when doing the things that matter to me, I find myself doing them without paying attention.
13. I am willing to fully experience whatever thoughts, feelings and sensations come up for me, without trying to change or defend against them.
14. I undertake things that are meaningful to me, even when I find it hard to do so
15. I work hard to keep out upsetting feelings.
16. I do jobs or tasks automatically, without being aware of what I'm doing.
17. I am able to follow my long terms plans including times when progress is slow.
18. Even when something is important to me, I'll rarely do it if there is a chance it will upset me.
19. It seems I am "running on automatic" without much awareness of what I'm doing.
20. Thoughts are just thoughts – they don't control what I do.
21. My values are really reflected in my behaviour.
22. I can take thoughts and feelings as they come, without attempting to control or avoid them.
23. I can keep going with something when it's important to me.

Appendix O: Adherence checklists for workshops 1, 2 and 3

Workshop 1: Thoughts are Just Thoughts; Pause, Observe, Describe and Taking Steps Towards What Matters.					
Adherence Component	**Topic**	**Key Points and Exercises**	**Score[a]**	**Adaptations[b]**	**Deviations[c]**
Content	Introduction and InTER-ACT Overview	Introductions given and ground rules (RESPECT) outlined	0 1 2		
	Noticing our Thoughts	Turning into own thoughts - Paper exercise	0 1 2		
	Worrying is Normal	Worrying and its usefulness - Rustling noise exercise - Video on negative thoughts	0 1 2		
	Worries Nowadays	Current worries and usefulness - Why we worry - Current worries - Thoughts trying to be helpful	0 1 2		
	Thoughts and Control	Controllability - Not think about vs only think about exercise - Delete memory exercise - Overall message	0 1 2		
	Tangled with Thoughts	Three-part exercise: - Pushing - Caught up - Sitting with	0 1 2		
	Untangling from Thoughts	Demonstration and strategy	0 1 2		
Competence		General ability in delivering the workshop	0 1 2		
Engagement		Engaging students through participation, reflections and/or open discussion[d]	0 1 2		
Responsiveness		Responding to students with warmth, enthusiasm, curiosity etc[d]	0 1 2		

[a] Score 0 (missing or no evidence), 1 (partially delivered) or 2 (fully delivered)

[b] May include shortening of exercises, eliciting responses in other ways to the manual,

[c] May include omission of key exercises, providing information inconsistent to the overall message (e.g. attempt to control thoughts rather than noticing)

[d] Score 0 (no evidence of attempts to engage students/ respond), 1 (some attempts to engage students/ respond) or 2 (regular attempts to engage students/ respond)

Workshop 2: Pause, Observe, Describe					
Adherence Component	**Topic**	**Key Points and Exercises**	**Score**	**Adaptations**	**Deviations**
Content	Recap last session	RESPECT and Quiz	0 1 2		
	Responding to Feelings	Common responses - To difficult feelings - Learning another way	0 1 2		
	Time Travelling Mind	Where the mind goes to - Past, present, future - What feelings come up	0 1 2		
	Mindful vs Mind Full	Introduction to mindfulness - Picture exercise - Distraction - Noticing where attention is	0 1 2		
	Connecting to the Moment	Ways to connect - Noticing - 5,4,3,2,1 exercise - Non-judgemental and curious - Weather analogy	0 1 2		
	Feelings and Continued Action	Sitting with feelings - Action despite difficult feelings - Facilitator example - Key ideas	0 1 2		
	Mindful Practice	Practice exercises - Points of contact - Mindful puppy - Pause, Observe, Describe exercise with video	0 1 2		
Competence		General ability in delivering the workshop	0 1 2		
Engagement		Engaging students through participation, reflections and/or open discussion[d]	0 1 2		
Responsiveness		Responding to students with warmth, enthusiasm, curiosity etc[d]	0 1 2		

^a Score 0 (missing or no evidence), 1 (partially delivered) or 2 (fully delivered)
^b May include shortening of exercises, eliciting responses in other ways to the manual,
^c May include omission of key exercises, providing information inconsistent to the overall message (e.g. attempt to control thoughts rather than noticing)
^d Score 0 (no evidence of attempts to engage students/ respond), 1 (some attempts to engage students/ respond) or 2 (regular attempts to engage students/ respond)

		Workshop 3: Taking Steps Towards What Matters			
Adherence Component	**Topic**	**Key Points and Exercises**	**Score**[a]	**Adaptations**[b]	**Deviations**[c]
Content	Recap last session	Quiz	0 1 2		
	Introduction to Values	What are they and their importance - What do others say matter - Research	0 1 2		
	Own Values	Identifying what matters - Connectedness exercise - Noticing values	0 1 2		
	Key Ideas	Values - What we care about - Not an outcome - Fluidity and compass analogy	0 1 2		
	Values Exercise	Explore, Identify, Choose - Ranking importance exercise - Top choices right now - Emphasise key ideas	0 1 2		
	Moving Towards	Setting intentions exercise - Choosing one - Steps towards - What can be done today	0 1 2		
	Consolidation	Recap - Workshop 1 key points - Workshop 2 key points - Workshop 3 key points	0 1 2		
Competence		General ability in delivering the workshop	0 1 2		
Engagement		Engaging students through participation, reflections and/or open discussion[d]	0 1 2		
Responsiveness		Responding to students with warmth, enthusiasm, curiosity etc[d]	0 1 2		

[a] Score 0 (missing or no evidence), 1 (partially delivered) or 2 (fully delivered)

[b] May include shortening of exercises, eliciting responses in other ways to the manual,

[c] May include omission of key exercises, providing information inconsistent to the overall message (e.g. attempt to control thoughts rather than noticing)

[d] Score 0 (no evidence of attempts to engage students/ respond), 1 (some attempts to engage students/ respond) or 2 (regular attempts to engage students/ respond)

Appendix P: ACT Fidelity Measure (ACT-FM)

Retrieved from: O'Neill, L, Latchford, G., McCracken, L. M. & Graham, C. D. (2019a). The Acceptance and Commitment Therapy Fidelity Measure (ACT-FM) Form.

The ACT Fidelity Measure (ACT-FM)

ACT-FM

About the ACT-FM

This measure is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's practice, or as a research tool). The items capture four key areas within ACT: **Therapist Stance, Open Response Style, Aware Response Style** and **Engaged Response Style**. These are outlined below with definitions. There are items to score the therapist's behaviours as consistent and inconsistent with these areas. For example, within the Open Response Style section, an ACT consistent item is 'Therapist gives the client opportunities to notice how they interact with their thoughts and/or feelings (e.g. whether avoidant or open)' and an ACT inconsistent item is 'Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal'. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session, which may be useful to record for research or training purposes. The consistent and inconsistent items are not opposites of each other. If rating the inconsistent items is not relevant for your purposes, then please feel free to omit these items.

Definitions

Therapist Stance

The stance taken by the therapist is equal, compassionate and non-judgemental. The therapist should show empathy and warmth and be guided by what the client brings. The therapist does not try to change the client's mind, but to guide noticing of their own experience using experiential techniques. The therapist encourages responsibility, focuses on context and models psychological flexibility responses and behaviour.

Aware Response Style

This is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to nonjudgementally attend to the present moment. The therapist may encourage the client to take an observer perspective on their psychological experiences, when doing so helps increase the effectiveness of client behaviour.

Open Response Style

This is the ability to open-up to experiences, and to observe and describe these without becoming entangled in them or trying to diminish them. The therapist might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts.

Engaged Response Style

This is the ability to identify, clarify and act according to one's values on an ongoing basis. The therapist might give the client opportunities to identify their values. They may help the client to define goals and actions that support their values, and to plan and do these actions.

How to use the ACT-FM

Procedure

- The focus of this measure is on the therapist's behaviour.
- Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT FM, especially in short sessions.
- Only score based on behaviours you have observed, not what you think the therapist would have achieved if they had further time available.
- A single therapist behaviour can be coded for all relevant items, not just the most suitable one.
- Before scoring the session, familiarise yourself with the measure and the items so that you can easily find an item when you see the clinician evidence it.
- Make notes as you listen to or view the session in the space below each item.
- Have specific examples in mind when scoring.
- Score the items at the end of the session not throughout, as ratings may change.

Scoring

Give a rating for each item based on the behaviours you have heard or observed by circling the number next to each item. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur, only assign a score higher than 0 if you hear or see examples of the behaviour. Higher scores are given for the behaviour occurring more consistently. Only give whole point answers, e.g. do not score 2.5. You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour.

The ACT Fidelity Measure (ACT-FM)

ACT-FM

Raters name and professional qualification: _____ Date of rating:_____

Therapist name and professional qualification:_____

Client ID: _____ Session No:_____ Date of session: _____

Length of session being rated:_____

☐ Direct observation   ☐ Audio recording   ☐ Video recording

Scoring

0 = This behaviour never occurred   2 = Therapist sometimes enacts this behaviour

1 = Therapist rarely enacts this behaviour   3 = Therapist consistently enacts this behaviour

Therapist stance

ACT consistent	Rating
1 Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach).	0 1 2 3
2 Therapist uses experiential methods/questions (i.e. helps the client to notice and use their own experience rather than thoughts about their experience).	0 1 2 3
3 Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.	0 1 2 3
4 Therapist demonstrates a willingness to sit with their own and the client's painful thoughts and feelings and the situations that give rise to these.	0 1 2 3

ACT inconsistent	Rating
5 Therapist lectures the client (e.g. gives advice, tries to convince the client, etc).	0 1 2 3
6 Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise.	0 1 2 3
7 Therapist conversations are at an excessively conceptual level (i.e. therapist overly emphasises verbal understanding of concepts rather than using experiential methods for behaviour change).	0 1 2 3

Open response style

ACT consistent	Rating
8 Therapist helps the client to notice thoughts as separate experiences from the events they describe.	0 1 2 3
9 Therapist gives the client opportunities to notice how they interact with their thoughts and/or feelings (e.g. whether avoidant or open).	0 1 2 3
10 Therapist encourages the client to "stay with" painful thoughts and feelings (in the service of their values).	0 1 2 3

ACT inconsistent	Rating
11 Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy.	0 1 2 3
12 Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal.	0 1 2 3
13 Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability.	0 1 2 3

The ACT Fidelity Measure (ACT-FM)

ACT-FM

Scoring

0 = This behaviour never occurred

1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour

3 = Therapist consistently enacts this behaviour

Aware response style

ACT consistent	Rating
14 Therapist uses present moment focus methods (e.g. mindfulness tasks, tracking, noticing, etc) to increase awareness of the moment, including thoughts and feelings.	0 1 2 3
15 Therapist helps the client to notice the stimuli (thoughts, feelings, situations, etc) that hook them away from the present moment.	0 1 2 3
16 Therapist helps the client to experience that they are bigger than and/or separate from their psychological experiences.	0 1 2 3

ACT inconsistent	Rating
17 Therapist introduces or uses mindfulness and/or self-as-context methods as means to control or diminish or distract from unwanted thoughts, emotions and bodily sensations	0 1 2 3
18 Therapist introduces or uses mindfulness and/or self-as-context methods to challenge the accuracy of beliefs or thoughts.	0 1 2 3
19 Therapist introduces mindfulness and/or self-ascontext methods as formulaic exercises.	0 1 2 3

Engaged response style

ACT consistent	Rating
20 Therapist gives the client opportunities to notice workable and unworkable responses (e.g. whether their actions move them towards or away from their values).	0 1 2 3
21 Therapist gives the client opportunities to clarify their own values (overarching life goals and qualities of action).	0 1 2 3
22 Therapist helps the client to make plans and set goals likely to meet reinforcing consequences (i.e. shapes action that is consistent with their values).	0 1 2 3

ACT inconsistent	Rating
23 Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).	0 1 2 3
24 Therapist encourages action without first hearing, exploring or showing curiosity regarding the client's psychological experiences (e.g. painful thoughts, feelings and emotions).	0 1 2 3
25 Therapist encourages the client's proposed plans even when the client has noticed clear impracticalities.	0 1 2 3

Scoring

A total score for each subscale can be calculated by adding the 3 items together. The Therapist stance – ACT consistent section has 4 items, so please convert this to give a total out of 9 in line with the other sections by adding the 4 items, dividing by 4 and multiplying by 3. The ACT consistent items can be added to give a total ACT consistency score and the ACT inconsistent items can be added to give a total ACT inconsistency score.

ACT Consistent Therapist Stance (0-9) =

ACT Consistent Open Response Style (0-9) =

ACT Consistent Aware Response Style (0-9) =

ACT Consistent Engaged Response Style (0-9) =

Total ACT Consistency Score (0-36) =

ACT Inconsistent Therapist Stance (0-9) =

ACT Inconsistent Open Response Style (0-9) =

ACT Inconsistent Aware Response Style (0-9) =

ACT Inconsistent Engaged Response Style (0-9) =

Total ACT Inconsistency Score (0-36) =