School of Psychology
Ysgol Seicoleg

Acceptance and Commitment Therapy for child and

adolescent mental well-being: A systematic review and an

acceptability and feasibility study of a universal intervention

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Declaration Statements

STATEMENT 1

This thesis is being submitted in partial fulfilment of the requirements for the degree of Doctorate of Clinical Psychology

Signed _____ Date _____

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This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is it being submitted concurrently for any other degree or award (outside of any formal collaboration agreement between the University and a partner organisation)

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Thesis Abstract

The aim of the current research was to review recent literature reporting on the use of Acceptance and Commitment Therapy (ACT) interventions for children and young people with mental health difficulties and to assess the acceptability and feasibility of delivering an ACT intervention for secondary school students. The research is presented in three parts: a systematic literature review (Paper 1), an empirical paper (Paper 2) and a critical appraisal of the overall research process (Paper 3).

The systematic review identified and critically appraised ACT interventions for the prevention and treatment of mental health difficulties in children and young people, published since 2015. Ten papers were identified via electronic database and web searches and included in the review. Articles were subject to a quality assessment, and a narrative synthesis was conducted. Findings indicated that ACT interventions mostly led to a reduction in mental health symptoms and an increase in psychological flexibility. Although the number of papers reporting on ACT interventions for young people has increased, the quality of the research varies, and there is a need for studies of increased methodological rigour.

The empirical paper reports on an acceptability and feasibility study assessing if a short, universal ACT intervention was acceptable and feasible to deliver to secondary school students. Staff, students and intervention facilitators provided feedback to inform the development of a cluster randomised controlled trial (RCT) which could assess the efficacy of ACT in this setting more rigorously. Three ACT workshops were delivered to a class of 12-13 year olds, three CBT workshops were delivered to another class, and a third class attended their lessons as usual. Outcome measures assessing mental health symptoms and psychological flexibility were completed and qualitative data about the experience of the workshops was obtained from students, school staff and the intervention facilitators via interviews and focus groups. Results indicated the ACT workshops were acceptable and could be feasibly delivered if researchers are able to work in conjunction with schools. The

implications of findings for a RCT are discussed with consideration to acceptability, demand, limited assessment of efficacy, implementation, sampling, recruitment, randomisation, refinements, and modifications to be made to the research procedure.

In the critical review, the research process, the strengths and limitations of the work undertaken, and the rationale for decisions made during the course of the research are considered. The usefulness and relevance of the research findings in relation to policy, clinical practice, theoretical frameworks, and the evidence base for ACT are discussed, as well as plans for dissemination.

Paper 1: Systematic Literature Review

Acceptance and Commitment Therapy: A systematic literature review of prevention and intervention programmes for mental health difficulties in children and young people

Acceptance and Commitment Therapy: A systematic literature review of prevention and

intervention programmes for mental health difficulties in children and young people

Abstract

Background: Acceptance and Commitment Therapy (ACT) is increasingly being used to support individuals with a range of mental health difficulties, however there is a paucity of reviews specific to the use of ACT with children and young people. **Aim:** To examine the literature concerning the use of ACT to support child and adolescent mental well-being. **Methods:** PsycINFO, PsycArticles, Web of Science, Scopus and the Association for Contextual Behavioural Science website were searched for articles reporting on the use of ACT interventions to prevent and reduce mental health difficulties experienced by children and young people, published from 2015 onwards. The methodological quality of all papers was assessed and the findings in relation to mental health symptoms and psychological flexibility were summarised using a narrative synthesis approach. **Results:** Ten articles were identified focusing on prevention and intervention for a range of mental health difficulties including anxiety, depression, obsessive compulsive disorder, anorexia nervosa and trichotillomania. The studies included a total of 1319 participants, ranging from 14 to 21 years old. Most studies used a randomised controlled design, although between groups and within groups designs were also used. The majority of studies found that mental health symptoms reduced following an ACT intervention and psychological flexibility increased. However, findings indicate that other active interventions also led to the same changes. **Conclusions:** The number of ACT interventions for mental health difficulties in children and young people has increased in recent years. Overall the methodological quality of studies is good, but size tends to be small and research designs could be improved with increased rigour. The findings of this review may be useful to clinicians working with young people experiencing diverse difficulties. Further research may help establish the change mechanisms involved in ACT, as well as the efficacy of ACT in comparison to more widely-offered

interventions.

Introduction

Acceptance and Commitment Therapy (ACT) is considered to be one of the 'third-wave' models of

Cognitive Behavioural Therapy (CBT) (Forman & Herbert, 2009; Hayes, Luoma, Bond, Masuda & Lillis,

2006). ACT differs from traditional cognitive and behavioural approaches by emphasising

experiential and contextual strategies for change which are broad and flexible, rather than targeting

a specific problem and focusing on cognitive change (Hayes, 2004).

The theoretical framework for ACT is Relational Frame Theory (RFT) (Hayes et al., 2006). RFT posits

that language and cognition allow for different concepts to be related and evaluated (Hayes, 2004;

Hayes, Strosahl, Bunting, Twohig & Wilson, 2004; Vilardaga, Hayes & Schelin, 2007).

'Psychopathology', or psychological difficulties, arise due to language and cognition (Hayes et al.,

2006). For example, thoughts cannot be suppressed, and one thought can easily lead to another,

resulting in unwanted cognitions coming to mind. Psychological difficulties can occur when an

individual attempts to control their thoughts (Hayes et al., 2006). RFT theorises that cognition is

difficult to change due to the relational nature of thoughts and language. Rather than attempting to

modify thoughts, it is viewed as more helpful to modify the relationships with cognition and

language. For example, by dropping attempts to suppress or control thoughts (experiential

avoidance) and recognising how thoughts, which are often unhelpful and inaccurate, can dominate

behaviour (fusion) (Harris & Hayes, 2009; Hayes, 2004). In summary, human language and cognition

are viewed as underlying psychopathology, but these processes have also allowed for human beings

to progress as a species and cannot be eliminated (Hayes, Barnes-Holmes & Roche, 2011).

Psychological inflexibility is a consequence of cognitive fusion and experiential avoidance, and can be understood as the inability to engage in behaviours which are in line with one's values (Fletcher & Hayes, 2005). ACT aims to increase psychological flexibility, allowing individuals to engage with what is happening in the present moment and make choices which are in line with their values, even when psychological difficulties are experienced (Hayes et al., 2004; Wilson & Murrell, 2004). Psychological flexibility is increased by developing six processes, which are often conceptualised in the hexaflex model (Ciarrochi, Bilich & Godsel, 2010; McHugh, 2011). The six processes are: acceptance (accepting rather than controlling thoughts and feelings); defusion (recognising thoughts are not facts); self as context (recognition of the self as an observer and that the self is separate from self-evaluations); contact with the present moment (using a mindful state to be aware of the present); values (identifying personal values which can guide behaviours); and committed action (engaging in behaviour based on values) (Ciarrochi, Bilich & Godsel, 2010). These six processes can be widely applied to help individuals experiencing diverse difficulties to lead a life which is more meaningful (Harris & Hayes, 2009). ACT aims to improve psychological flexibility rather than to reduce symptoms (Harris & Hayes, 2009; Hayes, Villatte, Levin & Hildebrandt, 2011). Despite this, the symptoms of mental health difficulties may decrease as a secondary gain (Hayes et al., 2006), suggesting ACT has value in both the prevention and intervention of psychological difficulties.

Several reviews have shown that ACT is an efficacious intervention for adults presenting with a range of psychological difficulties (A-Tjak et al., 2015; Hacker, Stone & MacBeth, 2016; Powers, Vörding & Emmelkamp, 2009; Ruiz, 2012). Powers et al. (2009) reviewed 18 RCTs for ACT as an intervention for depression, physical health difficulties, distress problems and other mental health difficulties. They concluded that ACT is significantly more effective than control conditions, but not more effective than other active intervention controls. Similarly, A-Tjak et al. (2015) reviewed the clinical efficacy of

ACT focusing on randomised controlled trials (RCTs) for adults with anxiety/depression; addiction; other mental health problems; and somatic health problems. A meta-analysis indicated that ACT outperformed control conditions (including placebo conditions and treatment as usual), and was as effective as other treatments including CBT, cognitive therapy and habituation therapy.

Ruiz (2012) reviewed only studies comparing ACT and CBT for adults, to further understand the change mechanisms of each. Sixteen studies for a variety of difficulties were identified, ranging from mental health difficulties such as anxiety and depression, to health difficulties such as cancer and chronic pain, to other stressors such as test-anxiety and stress at work. Outcomes of interest in the review included measures of depression, anxiety, quality of life and also ACT processes and CBT processes. A meta-analysis found small to medium mean effect sizes in favour of ACT when primary outcome measures were considered. However, analysis of anxiety and depression outcome measures only, indicated there was no statistically significant difference between ACT and CBT. Nine of the included studies conducted a formal mediation analysis, and overall ACT appeared to work through its proposed processes of change, however CBT did not.

Hacker et al. (2016) considered that the existing reviews of ACT with adults had often focused on a broad range of difficulties, making it difficult to understand what specific difficulties ACT might be useful for. Consequently, Hacker et al. (2016) conducted sequential meta-analyses considering ACT interventions for anxiety and depression only. The authors concluded that although ACT demonstrates moderate effects for anxiety and depression symptom reduction following intervention, sequential meta-analyses indicate there is insufficient evidence to conclude ACT is efficacious for anxiety or depression in comparison to active control conditions.

Whilst a number of reviews have been conducted with adults, there are fewer reviews specific to the use of ACT with children and young people. Murrell & Scherbath (2006) aimed to summarise the

state of ACT research regarding children and young people by conducting a review of relevant papers in the area. Their review identified 15 papers about ACT with young people experiencing a range of difficulties including anorexia, anxiety, chronic pain, physical health difficulties, and risky behaviour. It is of note that searches were not conducted systematically; articles were retrieved via electronic searching of one electronic database (PsycINFO), the Contextual Psychology website, and by contacting prominent researchers in the field. Of the studies identified, six were theoretical, and five focused on ACT with parents. The authors concluded that further studies using larger samples and controlled designs are needed, and recommended the use of validated assessment methods which can help measure avoidance, thought fusion and valued living, as well as symptomology.

Coyne, McHugh and Martinez' (2011) review primarily provides a theoretical overview of ACT with young people, but the review does describe the findings from a number of studies where ACT has been used with children and young people. No details of the search methodology used to find these articles were reported. Twelve studies were identified concerned with anxiety and depression, chronic pain, anorexia nervosa, psychosis, parenting interventions, and preventing risky sexual behaviours. The methodology used was reflective of emerging treatment literature, consisting of case studies, small trials and few preliminary RCTs. The authors identified that future research should consider larger samples and RCT methodologies, investigation of mechanisms of change, and feasibility and acceptability of ACT. Whilst both reviews (Coyne et al., 2011; Murrell & Scherbath, 2006), provided a description of each study included and a summary of the findings, this information is brief and there are limited details provided about the methodology used to identify included articles, and of the outcome measures used in the studies. It is therefore difficult to assess the scope of included articles or to be sure these reviews are comprehensive and not prone to error or bias.

Swain, Hancock, Dixon and Bowman (2015a) conducted the most recent review of ACT interventions with children and young people, not specific to a particular difficulty. The authors included both published and unpublished studies focusing on a variety of conditions including obsessive compulsive disorder, learning disabilities, emotional dysregulation, trichotillomania, tic disorders, pain, anorexia nervosa, depression, stress, impulsivity, sickle cell disease, sexualised behaviour, attention deficit hyperactivity disorder, and post-traumatic stress disorder. Their review included systematic searches and quality appraisal of 21 studies using the Psychotherapy Outcome Methodology Rating Form (POMRF) tool, which includes 22 items to assess methodology, such as reliability of the diagnosis in question, control of concomitant treatments, and replicability of intervention delivered. POMRF scores ranged from 3 to 25 (out of a maximum of 44), indicating variability in study quality. Thirteen studies (61.9%) collected data at multiple time points, and over 95% of the studies reviewed had a specified treatment protocol and used outcome measures which were reliable and valid. Methodological weaknesses across the studies included small sample sizes, non-randomised designs and few alternative treatment or control comparisons, with only one study comparing ACT to an active control condition. Overall, the findings indicated that the majority of studies found ACT to result in improvement in measures of symptoms, quality of life and psychological flexibility. In particular, superior outcomes were found in comparison to treatment as usual for difficulties with pain, depression and sexualised behaviour. The review highlighted that there was limited measurement of change processes, with only eight of the 21 studies measuring avoidance and fusion, and two studies measuring valued living. The authors discussed how few presenting problems have been investigated by more than one study, and that more research is needed. They concluded that research of more rigorous methodological quality, including measures to assess mechanisms of change is required to consolidate the evidence base.

The reviews of ACT interventions for children have highlighted that ACT has been used for a variety of presenting difficulties, with the most recent review undertaken by Swain et al. (2015a) indicating ACT has been used for a wide range of mental health difficulties. Child and adolescent mental health

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difficulties are increasing, and more research is needed to help understand both why this is, and how children and young people with mental health difficulties are best supported (Gunnell, Kidger & Elvidge, 2018). The consequences of untreated childhood mental health difficulties have been well-documented and include poor outcomes in adulthood such as persisting psychological difficulties, poor interpersonal functioning, poorer physical health and lower outcome (Comer et al., 2011; Copeland, Angold, Shanahan & Costello, 2014; Costello, Mustillo, Erkanli, Keeler & Angold, 2003). It has been queried whether current interventions that are available to young people are appropriate, and whether further research might identify alternative interventions (Hoagwood et al., 2018). ACT is one approach which has been increasingly reported in the literature in recent years, and one which may warrant further consideration for use with young people experiencing mental health difficulties.

Researchers have highlighted how quickly the evidence base for ACT is increasing (Atkins et al., 2017; Hooper & Larsson, 2015). For example, Atkins et al. (2017) have reported that searching for ACT relevant subject terms on Web of Science identified over 1000 articles, and of these 80% were from the last five years. Considering the dearth of ACT reviews specific to children and young people, and the proliferation of ACT publications, a review of recent ACT research for children and young people was deemed timely. The current research aimed to do the following:

A) Systematically review the ACT literature to identify studies relevant to the use of ACT with children and young people published since 2015 (Swain et al. (2015a) reviewed the literature relevant to ACT interventions with children and young people up to December 2014).

B) Identify and critically appraise articles which were concerned with using ACT for the prevention of, or intervention for, mental health difficulties experienced by children and young people.

C) Identify the study designs and methods which have been used to deliver ACT to children and young people.

D) Provide a narrative synthesis of the findings, considering change in mental health symptoms and changes related to ACT processes and psychological flexibility.

Method

Search and screening procedures

The PsycINFO, PsycArticles, Scopus and Web of Science databases were searched using the search terms:

1. Acceptance and commitment therap*

2. Child* OR teen* OR adolescen*

3. 1 AND 2

The Association for Contextual Behaviour Science (ACBS) website was also searched as it is considered to be a research community for clinicians and researchers interested in ACT. Searches were limited to articles published from 2015 onwards, as the most recent review of ACT interventions for children that was identified (Swain et al., 2015a), included published articles up to December 2014. All retrieved results were screened by title and abstract to see if they met the inclusion or exclusion criteria.

Inclusion criteria

The inclusion criteria were:

a) Articles published from 2015 onwards.

b) Interventions targeting the prevention or intervention of mental health difficulties.

c) Interventions for children and young people aged 18 or under. Studies with participants who were

both older and younger than 18 years were included if the average age of participants was 18 or

under.

d) Interventions including at least two components of the ACT hexaflex processes: acceptance,

mindfulness, self-as-context, cognitive defusion, committed action and values.

e) Research including at least one validated measure of mental health difficulties.

f) Articles published in English.

Exclusion criteria

The exclusion criteria were:

a) Theoretical articles or reviews.

b) Interventions for children and young people experiencing other difficulties (i.e. not mental

health), e.g. physical health, behavioural, neuro-developmental difficulties.

Data extraction, synthesis and quality assessment

For all included studies, data was extracted about participants and study design, specifically: the

country where the research was undertaken; the mental health problem of interest; the number of

participants; age range of participants; mean age; percentage of the sample who were female; the

type of population participants were sampled from (community/inpatient/school, clinical/non-

clinical); the study design used; the control (if relevant); and the treatment. Data was also extracted

about the intervention and the outcomes used, specifically: the format of the intervention, who

facilitated the intervention, the type of training and experience in ACT the facilitators had (studied

ACT/author of the intervention/clinical experience of using ACT/previous ACT training/ACT training

specific to the intervention), length of intervention, type of outcomes used (clinician rated/parent-

report/self-report), the outcome measures used and the time-points data was collected at. To

provide information about the findings of included studies, results regarding change in mental

health difficulties were reported. Results regarding changes in psychological flexibility were also reported to provide an indication about the process of the intervention.

All included studies were subjected to quality appraisal using the Quality Assessment Tool for Studies with Diverse Designs (QATSDD) (Sirriyeh, Lawton, Gardner & Armitage, 2012) which was selected due to the heterogeneity of included studies. The tool includes 16 items relating to the design, sampling, choice of outcome measures and evaluation of the study, which are rated on a scale of 0-3 (0 = Not at all, 1 = Very slightly, 2 = Moderate, 3 = Complete). A higher score indicates a paper of better quality. The total score is converted to a percentage. The QATSDD has been evaluated and has been shown to assess the constructs of a 'good research design', as well as having good reliability (K=71.5%) and face validity with a sample of health researchers (Sirriyeh et al., 2012). Two of the QATSDD items relate specifically to studies using a qualitative component in the methodology. Qualitative studies were not excluded from this review, however all the included studies used quantitative components only. Consequently, the two qualitative items were not used for quality assessment, and a total of 14 items were used.

Results

Eligible studies

Searches of the electronic databases retrieved 849 articles which were screened using the title and abstract, resulting in the exclusion of 776 articles which did not meet inclusion criteria (see Figure 1). Thirty-eight duplicates were excluded from the remaining 76 articles, leaving 35 articles to be assessed using the full-text. Twenty-five articles were excluded and 10 articles were included in the current review. Reasons for exclusion included the use of interventions for young people with physical health difficulties or behavioural difficulties, and no outcome measures to assess mental health symptoms. Full reasons for exclusion are listed in Appendix B.

Figure 1. Selection of studies

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│  Articles identified     │
│  through electronic      │
│  database and web        │
│  searches                │
│  n = 849                 │
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┌─────────────────────────┐        ┌─────────────────────────┐
│  Articles screened by    │───────▶│  Articles excluded       │
│  title and abstract      │        │  n = 776                 │
│  n = 73                  │        │                          │
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│  Duplicates removed      │───────▶│  Articles excluded       │
│  n = 35                  │        │  n = 38                  │
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│  Full-text articles      │───────▶│  Articles excluded       │
│  assessed for            │        │  n = 25                  │
│  eligibility             │        │  Reasons listed in       │
│  n = 35                  │        │  Appendix B              │
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│  Articles included in    │
│  review                  │
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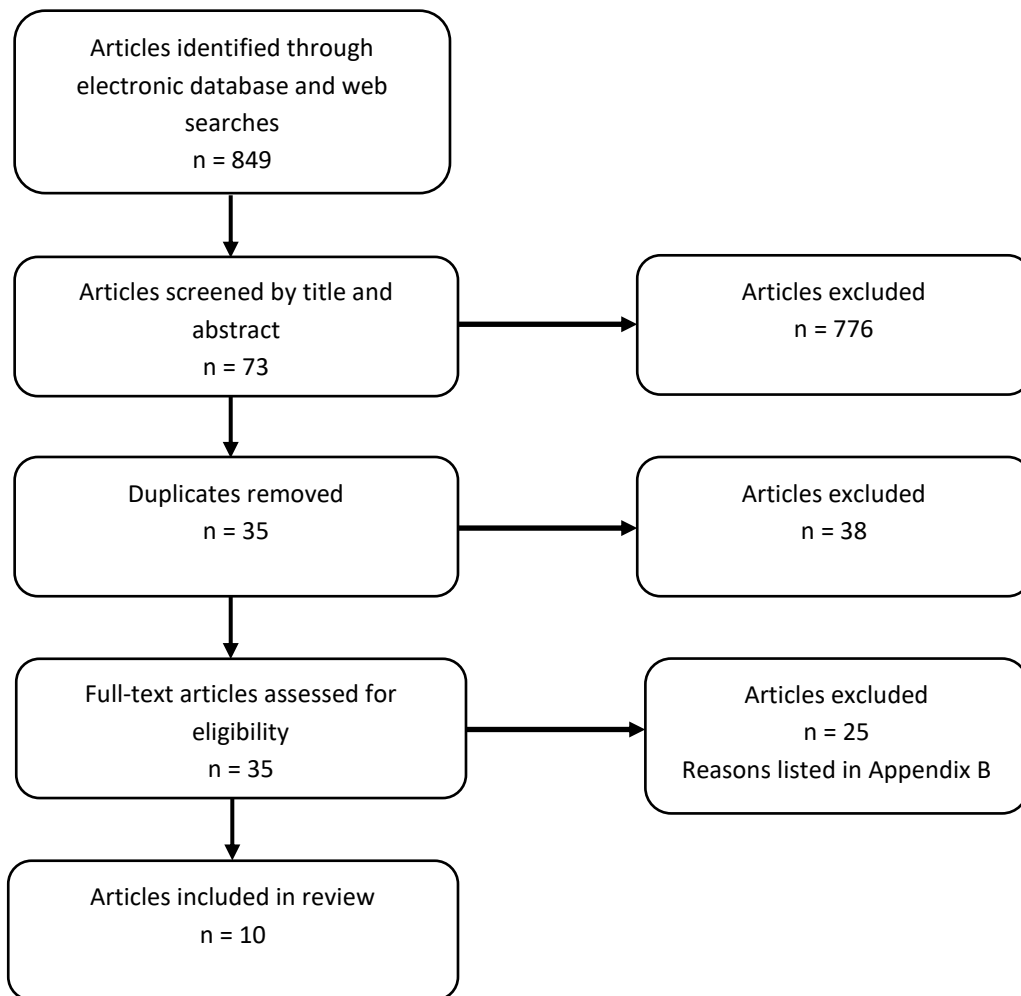
Overview of included studies

Details of the included studies can be found in Tables 1 and 2. One study was conducted in Belgium, but all of the other studies were undertaken in Australia or the United States of America (USA). Three studies reported on interventions for the prevention of mental health difficulties and the other seven reported on interventions for a range of existing mental health presentations including anxiety, depression, obsessive compulsive disorder (OCD), anorexia nervosa and trichotillomania.

Sample characteristics

Across the included studies there was a total of 1319 participants, ranging from 4 to 21 years. This number includes 14 young people who participated in Lee et al.'s (2018) study reporting on

participants aged 12 to 45 years. This study was included as 14 adolescents who were under the age

of 18 were part of the sample, and the results for adolescents and adults were reported separately.

The mean age of participants across all included studies ranged from 10.33 to 21 years, and the

percentage of females ranged from 33% to 89%. The three studies targeting the prevention of

mental health difficulties used non-clinical samples from schools (Buckhardt, Manicavasagar,

Batterham & Hadzi-Pavlovic, 2016; Buckhardt, Manicavasagar, Batterham, Hadzi-Pavlovic & Shand,

2017; Van der Gucht et al., 2017), one used a clinical sample recruited from a school (Petts, Duenas,

& Gaynor, 2017), but all other included studies used a clinical sample from the community.

Study design

Six studies used a RCT design, three used a within-subjects design and one used a between-subjects

design. Eight used a control condition, although this was typically a non-active condition (use of

multiple baseline, treatment as usual, waiting list control). Three studies used an active control

condition, including two studies which used a CBT intervention as well as a waiting list control

(Hancock et al., 2016; Swain et al., 2015b) and one which used Acceptance-Based Behaviour Therapy

(as a comparison to Acceptance-Based Behaviour Therapy in conjunction with a multisensory

learning aide) (Meagher, Chessor & Fogliati, 2018., 2018).

Intervention and Outcome measures

Six studies assessed an ACT-only intervention, one combined ACT with positive psychology, one

provided Acceptance-Based Behaviour Therapy (ABBT) combined with a multisensory learning aide

(MLA), one provided ACT following a Motivational Interviewing Assessment (MIA), and one provided

Acceptance-Based Separated Family Treatment (ABSFT). Descriptions of all the interventions

indicated that at least 3 components of the hexaflex were present. Of the included studies, there

was a mixture of group interventions (six studies) and interventions delivered on an individual basis

(four studies). The facilitators providing the intervention varied. In half of the included studies, psychologists who had written the intervention or had experience of using ACT clinically, provided the interventions. Two studies reported interventions delivered by therapists, two were delivered by individuals with training in masters-level school psychology, and one intervention was delivered by teachers who received specific training about the intervention.

The number of sessions received by participants ranged from 4 to 20, and the length of these ranged from 25 minutes to two hours. Self-report outcomes were used in all of the included studies. One study also used parent-reported measures, one also used clinician-rated measures, and four studies used all three types of measure. A variety of outcome measures were used, with eight studies including a measure of ACT processes/psychological flexibility, and the others measuring mental well-being only. All studies completed outcome measures pre- and post-intervention, and five studies completed the outcomes at a follow-up point, which ranged from 3 months to one year.

Assessment of methodological quality

The quality assessment using the QATSDD resulted in scores which varied from 52% to 90%, with an average of 70.24% (SD = 12.31). The standard deviation was used to devise cut-off scores and categorise the quality scores into groups. A percentage score within one standard deviation of the mean was considered to be above average (score between 70 and 82) or below average (score between 58 and 69). A percentage score within two standard deviations of the mean was considered to be well above average (score between 83 and 95) or well below average (score between 46 and 57). The raw scores were calculated by considering if each item had been met completely (3 points), moderately (2 points), slightly (1 point) or not at all (0 points). Quality appraisal was undertaken by the author, although four studies were also assessed using the QATSDD by an independent researcher to check reliability, with moderate agreement between the assessors (K=.791) (McHugh,

2012).

All but one study (Van der Gucht et al., 2017) provided a complete description of the theoretical framework, and seven studies provided a complete description of the study aims and objectives. Lee et al. (2018) provided a moderate description, Van der Gucht et al. (2017) provided a slight description and Petts et al. (2017) did not provide a clear description. All studies gave a moderate or complete description of the research setting, but there was little evidence to show sample sizes were appropriate for the methods of analysis or that samples which were appropriately powered for hypothesis testing had been obtained. Six studies did not provide information to indicate sample size and analysis were considered in the study design, three provided a slight description (Timko, Zucker, Herbert, Rodriguez & Merwin, 2015; Buckhardt et al., 2016, 2017) and one provided moderate information (Hancock et al., 2016).

There was variability in the representativeness of the samples of participants used. A sample was considered representative if there was information to indicate who the target population was and that the sample used was unlikely to be biased or unrepresentative (e.g. using a number of research sites, including young people of different ethnicities and socioeconomic status). Six studies used samples which were moderately or completely representative of the target population, whereas two were slightly representative (Buckhardt et al., 2017; Timko et al., 2015) and two were not representative (or did not provide information about the target group) (Barney, Field, Morrison, & Twohig, 2017; Meagher et al., 2018). Few studies provided detailed descriptions of the data collection procedure, with four studies providing a complete description (Barney et al., 2017; Buckhardt et al., 2017; Hancock et al., 2016; Van der Gucht et al., 2017). Others were missing information such as who completed measures with participants, or where the intervention was delivered, and were therefore scored as having a slight or moderate description. All but one study

(Timko et al., 2015) provided a complete description of the rationale for choosing the relevant data collection tools, and all but one study (Meagher et al., 2018) provided complete data about recruitment. The majority of studies provided moderate or complete information about the statistical reliability and validity of the data collection tools selected, however four studies did not provide any information about this (Buckhardt et al., 2017; Meager et al., 2018; Petts et al., 2017; Timko et al., 2015).

All studies selected data collection methods which were moderately appropriate (able to address the research question but an additional element could have been used) or completely appropriate (the most suitable data collection method to address the research question). All studies used analytical methods which were moderately or completely appropriate for addressing the research question, excluding Petts et al. (2017) who did not outline a clear research question. The majority of studies also provided a complete or moderate rationale for methods of data analysis, excluding Barney et al. (2017). Three studies (Buckhardt et al., 2016, 2017; Hancock et al., 2016) provided a complete discussion of the strengths and limitations of the research, and the remaining studies provided moderate information about this. None of the studies utilised service user involvement in designing the study and were all scored zero for this item.

Findings of included studies

An overview of the findings of each study (in terms of changes in mental health difficulties and psychological flexibility) can be found in Table 3.

Well Above Average Studies

Two studies were rated as being well above average using the QATSDD (Buckhardt et al., 2016; Hancock et al., 2016). Hancock et al. (2016) used a RCT to measure the effectiveness of ACT in a

sample of children aged 7-17 years with anxiety disorders. The young people were recruited from school counsellors, parents, health professionals and via word of mouth. The ACT group was compared to a CBT group as well as a waiting list control and a range of measures (clinician-rated, parent-report and self-report) were administered pre and post-intervention and at a three month follow-up. The sample size was 193 which is one of the larger samples of the included studies. Effect sizes were small but results showed a significant reduction in self-reported and clinician-rated anxiety symptoms following the intervention and at the three month follow up for students in both the ACT and CBT groups in comparison to the waiting list control. Additionally, there were large effect sizes showing acceptance and defusion significantly increased for the ACT and CBT groups but not for the control. There was no difference in symptom reduction or in acceptance and defusion scores when ACT and CBT were compared to each other. The authors concluded that ACT should be considered as another empirically supported treatment for young people with anxiety. However, as only one research site was used the generalisability of these findings is limited.

Buckhardt et al. (2016) conducted a RCT of ACT combined with positive psychology in comparison to a treatment as usual condition which involved students attending their usual lessons. A large sample of 320 students, in Year 10 and Year 11, was used and the intervention was delivered in the style of lectures to large groups of students. Only two outcome measures were used, one of which, the Depression and Anxiety Scale-Short Form (DASS-21) showed a significant reduction, with medium to strong effect sizes, in self-reported depression, stress, and in combined anxiety and depression for students with elevated scores. Although analysing all students together showed significant findings favouring ACT, analysing the year groups separately found significant improvement with medium effect sizes for the Year 10 students only. No measure of psychological flexibility was utilised. The authors concluded that the findings tentatively suggest using acceptance as an emotion regulation strategy could be beneficial as part of an early intervention programme for mental health difficulties, although it is not possible to determine whether ACT or positive psychology (or a combination of

both) was responsible for change in well-being.

Above Average Studies

Four studies were rated as being above average (Buckhardt et al., 2017; Lee et al., 2018; Swain et al., 2015b; Van der Gucht et al., 2017). Swain et al. (2015b) reported on the mechanisms of change of a RCT of ACT for 49 adolescents with a diagnosis of anxiety. ACT was delivered in a 10 week group therapy format and compared to a CBT group and a waiting list control. A range of clinician-rated, parent-report and self-report measures for anxiety were used and data was collected pre and post-intervention and at a 3 month follow-up. The findings showed a significant reduction in anxiety symptoms as measured by clinicians, parents and the children following the intervention and at the three month follow-up for both the ACT and CBT groups in comparison to the control. Acceptance and defusion significantly improved for the ACT and CBT groups, mindfulness increased for the ACT group only, and there were no significant changes in valued living for any group. The authors concluded that the study offered limited support to the components of the hexaflex as mediators of change and considered that ACT and CBT may act through similar mechanisms. It should be noted that the authors did not report information to suggest the sample was powered for hypothesis testing. In addition, data was only collected at pre and post-intervention, and a 3 month follow up, which may not be frequent enough to detect process changes.

Lee et al. (2018) used a RCT to assess the use of ACT for trichotillomania in comparison to a waiting list control group. The sample included 39 participants, 25 of which were adults and 14 who were between 12 and 18 years. This study was included in the current review as findings for adolescents were reported separately. Only two validated outcomes were used, one to measure hair-pulling and another to measure acceptance and action. These measures were completed pre and post-intervention. The findings for adolescents were not analysed statistically but a reduction in hair-

pulling was reported (30.8% decrease), as was an improvement in acceptance and action (11.3% increase). The adolescents in this study did not benefit from the treatment as much as the adults who reported a 56.7% reduction in hair pulling and a 35.6% improvement in acceptance and action. The authors concluded that ACT for trichotillomania may be more beneficial for adults, however this should be considered with caution as no statistical testing of efficacy for adolescents was undertaken.

Buckhardt et al. (2017) reported on a feasibility study for a RCT trialling ACT as a preventative intervention for depression and anxiety with 48 adolescents, aged 14-16 who were recruited from a non-clinical school population. ACT workshops were delivered by a psychologist to a group of approximately 60 students at a time and follow up workshops were delivered by teachers to smaller groups of students. Only two outcome measures were used in this study (Depression Anxiety and Stress Scale-Short Form, Flourishing Scale) and no measure of psychological flexibility was used. Results showed that following the intervention there was no clinically significant change in the depression and anxiety symptoms reported by the sample. There was however, a medium to large effect size for the means at baseline to the five month follow up, which favoured ACT. Given this was a feasibility study and the sample was small, the authors concluded that an ACT-based intervention delivered in school has potential to help prevent youth anxiety and depression, although further research would be needed to help distinguish between the effects of a lecture-style intervention and teacher-led workshops.

Van der Gucht et al. (2017) used the largest sample of participants of the included studies, conducting a RCT of ACT with 616 students within 14 schools. The intervention was preventative, and students received four weekly, 120-minute sessions of ACT within their usual school timetable. The intervention was delivered by their teachers who had attended a 2-day training course. Self-report measures were completed pre and post-intervention and at a one year follow-up, the longest

follow-up point of the included studies. Findings showed that there was no significant reduction in mental health difficulties or in avoidance and fusion in comparison to the control group who attended their usual lessons. The authors considered these findings could be due to the brief nature of the intervention, or because the intervention was delivered by teachers (rather than psychologists who are trained in ACT). They concluded that ACT may need to be delivered by trained professionals to be efficacious, although post-intervention data was collected between one week and eight weeks following the intervention which might have made it difficult to clearly determine any post-intervention effects, as these could have changed over this time period. Although this was the largest sample of the studies reviewed, the authors did not provide information about whether sample size had been considered in terms of analysis, and it is not possible to conclude that the sample was appropriately powered.

Below Average Studies

Two studies were assessed as being below average (Barney et al., 2017; Timko et al., 2016). Timko et al. (2016) assessed Acceptance-Based Separated Family Treatment (ABSFT) for anorexia nervosa, an intervention which involved the therapist meeting separately with 48 young people aged 12-18 years and their parents, and using the principles of ACT to support the family with the process of re-nourishment. Timko et al. (2016) was the longest intervention of the included studies (20 sessions over 24 weeks) and the sample was predominantly female (89%). Outcomes were completed pre, mid, and post-intervention, as well as at a three month follow-up. The findings indicated positive change with a significant reduction in eating disorder symptoms and an increase in the participants' Body Mass Index over time. Experiential avoidance for young people and parents was measured using the Avoidance and Fusion Questionnaire-Youth (AFQ-Y) for young people and the Acceptance and Action Questionnaire-II (AAQ-II) for parents, as well as a subscale of the Difficulties in Emotion Regulation Scale (DERS) related to avoidance. Both the AAQ-II and DERS subscale showed a significant reduction in avoidance for parents, but only the AFQ-Y did for young people. The authors

concluded that the study showed preliminary evidence for the use of ABSFT for anorexia nervosa. The absence of a control group however means it is difficult to draw conclusions about how ABSFT compares to other treatments which are more widely offered.

Barney et al. (2017) reported on the findings of a nonconcurrent multiple baseline design used to assess an individual ACT intervention for 3 children aged 10 to 11 years who were experiencing OCD. Although the sample size was very small and not representative of a wider population, the findings showed that after the ACT intervention OCD symptoms had significantly reduced, as had child avoidance and fusion and parental experiential avoidance. The authors concluded that ACT may have applications for children with OCD, and that it can be provided by school psychologists. However, these conclusions should be considered with caution due to the small sample size and the fact that data was missing for two of the three participants.

Well Below Average Studies

Two studies fell in the well below average range based on QATSDD score (Meager et al., 2018; Petts et al., 2017). For Meager et al. (2018) and Petts et al. (2017), specific areas of weakness related to providing limited information about sample size and the reliability and validity of outcome measures used. Additionally, Petts et al. (2017) did not state clear research aims and objectives.

Meagher et al. (2018) compared Acceptance-Based Behavioural Therapy (ABBT) with ABBT taught with a multisensory learning aid (MLA), a model head with a handle which allows thoughts to be written on small pieces of paper and to move in and out of the model head when the handle is turned. ABBT is based on several components of the hexaflex, specifically defusion, acceptance, contact with the present moment and values. The MLA is used to add tactile, visual and kinaesthetic learning stimuli. Participants were 14 children aged 4-11, the youngest sample of the included studies. Outcomes included both self-report and parent-report measures with findings showing that following the intervention children did not report any significant reduction in anxiety symptoms in

the ABBT or the ABBT-MLA conditions, although parents of children in the ABBT-MLA condition reported a significant reduction in anxiety. There were no changes in levels of mindfulness or avoidance and fusion for either group. The authors concluded that the multisensory learning aide may have facilitated children's understanding of abstract principles, but the small sample size prevented any specific assessments of the added benefit of using the multisensory learning aide to be undertaken. In addition, there was no control group to help assess the effects of ABBT as a stand alone intervention.

Petts et al. (2017) assessed an individual Motivational Interviewing Assessment (MIA) + ACT intervention for adolescents with depression, which involved 15 students, aged 14-18 years receiving three sessions of motivational interviewing followed by 12 sessions of ACT. The students were recruited from a school and were deemed eligible to participate if they had a score of 45 or higher on the Children's Depression Rating Scale-Revised (CDRS-R). Following the intervention students self-reported a significant decrease in depressive symptoms (as measured by the CDRS-R and Beck Depression Inventory-II) and in avoidance and fusion (as measured by the Behavioural Activation Scale-Short Form and the Avoidance and Fusion Questionnaire for Youth-8). Both changes in depression and psychological flexibility were demonstrated using more than one measure and the authors concluded that ACT may have applications for young people with depression, but that further research was necessary given the small sample size.

Table 1. Overview of participants and design of included studies

Study	Country	Problem of interest	N	Age	Mean age	%*f*	Pop.	Control	Treatment
Barney et al. (2017)	USA	OCD	3	10-11	10.33	33%	Co, Cl	MB	ACT
Buckhardt et al. (2016)	Aus	Prevention	320	15-18	16.37	39%	S, NC	TAU	ACT + PP
Buckhardt et al. (2017)	Aus	Prevention	48	14-16	15.64	42%	S, NC	TAU	ACT
Hancock et al. (2016)	Aus	Anxiety	193	7-17	11	58%	Co, Cl	CBT + WLC	ACT
Lee et al. (2018)	USA	Trichotillomania	39 (<18y = 14)	12-45	21	87.20% (all)	Co, Cl	WLC	ACT
Meagher et al. (2018)	Aus	Anxiety	14	4-11	Not stated	28%	Co, Cl	ABBT	ABBT + MLA
Petts et al. (2017)	USA	Depression	15	14-18	16.13	73%	S, Cl	-	MIA then ACT
Swain et al. (2015b)	Aus	Anxiety	49	12-17	13.8	63.30%	Co, Cl	CBT + WLC	ACT
Timko et al. (2016)	USA	Anorexia nervosa	47	12-18	14.02	89%	Co, Cl	-	ABSFT
Van der Gucht et al. (2017)	Belgium	Prevention	616	14-21	17	53%	S, NC	TAU	ACT

N = number of participants, %*f* = percentage of female participants, Pop. = Population
Country: Aus = Australia, USA = United States of America
Problem of Interest: OCD = Obsessive Compulsive Disorder
Population: Cl = Clinical, Co = Community, NC = Non-clinical, S = School
Control: ABBT = Acceptance-Based Behaviour Therapy, CBT = Cognitive Behaviour Therapy, MB = Multiple Baseline, TAU = Treatment As Usual, WLC = Waiting List Control
Treatment: ABSFT = Acceptance-Based Separated Family Treatment, MIA = Motivational Interviewing Assessment, Multisensory Learning Aide = MLA, PP = Positive Psychology

Table 2. Overview of intervention and outcomes used in included studies

Study	Format	Facilitators	ACT Exp	Length	Type of Outcomes	Outcome Measures	Time-points
Barney et al. (2017)	I	School therapist in training	St	9 x 50 min over 9 weeks	CR, PR, SR	ADIS-IV, AFQ-Y, CGI, CY-BOCS, NIMH-GOCS, PAAQ	Baseline + pre + post
Buckhardt et al. (2016)	G	Psychologist	Int Au	16 x 0.5h over 3 months	SR	DASS-21, FS	Pre + Post
Buckhardt et al. (2017)	G	Psychologist	Cl Ex, Int Au, Pr Tr	7 x 25min over 7 weeks + 4 x 25 min teacher-led sessions	SR	DASS-21, FS	Pre, post, 5 month FU
Hancock et al. (2016)	G	3 Clinical Psychologists + trainee psychologists	Cl Ex, Pr Tr	10 x 1.5h over 10 weeks	CR, PR, SR	ADIS-IV, AFQ-Y, CALIS, CHQ, MASC	Pre, post, 3 month FU
Lee et al. (2018)	I	Therapists	Pr Tr	10 x 50 min over 10 weeks	SR	AAQ-II, MGH-HS, DTF	Pre + post
Meagher et al. (2018)	G	Researcher with training in school psychology		8 sessions over 8 weeks	PR, SR	AFQ-Y, CAMM, PSWQ-C, SCAS-C, SCAS-P, SDQ	Pre + post
Petts et al. (2017)	I	Therapists	Cl Ex, Pr Tr	MIA: 3 sessions over 3 weeks, ACT: 12 sessions over 10 weeks	CR, SR	AFQ-Y8, BADS-SF, BDI-II, CDRS-R, HRQoL, MINI-KID, MSSSS, TASA	Pre + post
Swain et al. (2015b)	G	Psychologists	Cl Ex, Pr Tr	10 x 1.5h over 10 weeks	CR, PR, SR	ADIS-IV, AFQ-Y, CALIS, CAMM, CBCL, CDI, MASC, VLQ	Pre, post, 3 month FU
Timko et al. (2016)	I	Psychologists and graduate psychology students	Cl Ex	20 sessions over 24 weeks	CR, PR, SR	AAQ-II, ABOS, AFQ-Y, BMI, DERS, EDE, FamQ, RS	Pre, mid, post, 3 month FU

| Van der Gucht et al. (2017) | G | Teachers | Int Tr | 4 x 2h over 4 weeks | SR | AFQ-Y, WHOQoL-Bref, YSR | Pre, post, 1 year FU |

ACT Exp = ACT Experience
Format: G = Group, I = Individual
ACT Exp: St = Studied, Cl Ex = Clinical experience, Pr Tr = Previous training, Int Au = Intervention author, Int Tr = Intervention-specific training
Type of Outcomes: CR = Clinician-rated, PR = Parent-report, SR = Self-report
Outcome Measures: AAQ-II = Acceptance and Action Questionnaire-II, ABOS = Anorectic Behavior Observation Scale, ADIS-IV = Anxiety Disorders Interview Schedule for Children - Fourth Edition, AFQ-Y = Avoidance and Fusion Questionnaire for Youth, AFQ-Y8 = Avoidance and Fusion Questionnaire for Youth-8, BADS-SF = Behavioural Activation for Depression Scale - Short Form, BDI-II = Beck Depression Inventory-II, BMI = Body Mass Index, CALIS = Children's Anxiety Life Interference Scale, CAMM = Child Acceptance and Mindfulness Measure, CBCL = Child Behaviour Checklist, CDRS-R = Children's Depression Rating Scale-Revised, CDI = Child Depression Inventory, CGI = Clinical Global Impressions Scale, CHQ = Child Health Questionnaire, CY-BOCS = Children's Yale-Brown Obsessive Compulsive Scale, DASS-21 = Depression Anxiety and Stress Scale-Short Form, DERS = Difficulties in Emotion Regulation Scale, DTF = Daily Tracking Form (Self-report of number of hairs pulled), EDE = Eating Disorder Examination, FamQ = Family Questionnaire, FS = Flourishing Scale, HRQoL = Health-Related Quality of Life - 4 Questionnaire, MASC = Multidimensional Anxiety Scale for Children, MGH-HS = Massachusetts General Hospital - Hair Pulling Scale, MINI-KID = Mini International Neuropsychiatric Interview for Children and Adolescents, MSSSS = MacArther Scale of Subjective Social Status - Youth Version, NIMH-GOCS = National Institute of Mental Health Global Obsessive Compulsive Scale, PAAQ = Parental Acceptance and Action Questionnaire, PSWQ-C = Penn State Worry Questionnaire - Child Adaptation, RS = Remission Status, SCAS-C = Spence Children's Anxiety Scale-Child, SCAS-P = Spence Children's Anxiety Scale-Parent, SDQ = Strengths and Difficulties Questionnaire, TASA = Therapist Alliance Scale for Adolescents, VLQ = Valued Living Questionnaire, WHOQoL-Bref = World Health Organization Quality of Life Questionnaire, YSR = Youth Self Report
Time-points: FU = Follow-up

Table 3. Overview of quality appraisal and findings for included studies

Study	Problem of Interest	N	Design	Quality (%)	Mental Health Outcomes *[Time point]*	Psychological Flexibility Outcomes *[Time point]*
Barney et al. (2017)	OCD	3	WG	62	OCD symptoms sig. ↓ (CY-BOCS, NIMH-GOCS) *[Post-int]*	Avoidance & Fusion ↓ by 40% (AFQ-Y) Parental experiential avoidance ↓ by 16% (PAAQ) *[Post-int]*
Buckhardt et al. (2016)	Prevention	320	RCT	86	Depression, stress and depression + anxiety sig. ↓ (DASS-21) *[Post-int]*	-
Buckhardt et al. (2017)	Prevention	48	RCT	71	No sig. change in depression & anxiety (DASS-21), but medium to large ES for ACT *[5 month FU]*	-
Hancock et al. (2016)	Anxiety	193	RCT	90	Anxiety symptoms sig. ↓ for ACT & CBT (ADIS-IV, MASC) No diff. between ACT & CBT *[Post-int + 3 month FU]*	Acceptance & Defusion sig. ↑ for ACT & CBT (AFQ-Y) No diff. between ACT & CBT *[Post-int + 3 month FU]*
Lee et al. (2018)	Tricho-tillomania	14	RCT	74	No Stat An. 30.8% reduction in hair pulling (MGH-HS) *[Post-int]*	No Stat An. 11.3% reduction in experiential avoidance (AAQ-II) *[Post-int]*
Meagher et al. (2018)	Anxiety	14	BG	55	No sig. reduction in anxiety for ABBT or ABBT+MSA (SCAS-C), Anxiety sig. ↓ for ABBT-MLA (SCAS-P) *[Post-int]*	No sig. change for mindfulness or Avoidance & Fusion for ABBT or ABBT-MLA (CAMM, AFQ-Y) *[Post-int]*
Petts et al. (2017)	Depression	15	WG	52	Depression symptoms sig. ↓ (CDRS-R, BDI-II) *[Post-int]*	Avoidance & fusion sig. ↓ (BADS-SF, AFQ-Y8) *[Post-int]*
Swain et al. (2015b)	Anxiety	49	RCT	76	Anxiety symptoms sig. ↓ for ACT + CBT (ADIS-IV, CDI, MASC)	Acceptance + defusion sig. ↑ for ACT and CBT (AFQ-Y) Mindfulness ↑ for ACT

					[Post-int + 3 month FU]	not CBT (CAMM) No change in valued living for ACT or CBT (VLQ) [Post-int + 3 month FU]
Timko et al. (2016)	Anorexia nervosa	47	WG	64	Eating disorder symptoms sig. ↓ (EDE), BMI ↑ over time [Post-int]	Experiential avoidance sig. ↓ (AFQ-Y) but no change for experiential avoidance measured by DERS [Post-int + 3 month FU] Parental experiential avoidance sig. ↓ (DERS + AAQ-II) [Post-int + 3 month FU]
Van der Gucht et al. (2017)	Prevention	616	RCT	71	No sig. reduction in mental health symptoms (YSR) [Post-int + 1 year FU]	No sig. change in avoidance & fusion (AFQ-Y) [Post-int + 1 year FU]

Problem of Interest: OCD = Obsessive Compulsive Disorder
Design: BG = Between Groups, WG = Within Groups, RCT = Randomised Controlled Trial
Mental Health & Psychological Flexibility Outcomes: ↓ = decrease, ↑ = increase, AAQ-II = Acceptance and Action Questionnaire-II, ABBT = Acceptance-Based Behaviour Therapy, ADIS-IV = Anxiety Disorders Interview Schedule for Children - Fourth Edition, AFQ-Y = Avoidance and Fusion Questionnaire for Youth, AFQ-Y8 = Avoidance and Fusion Questionnaire for Youth-8, BADS-SF = Behavioural Activation for Depression Scale - Short Form, BDI-II = Beck Depression Inventory-II, BMI = Body Mass Index, CAMM = Child Acceptance and Mindfulness Measure, CDI = Child Depression Inventory, CDRS-R = Children's Depression Rating Scale-Revised, CBT = Cognitive Behaviour Therapy, CY-BOCS = Children's Yale-Brown Obsessive Compulsive Scale, DASS-21 = Depression Anxiety and Stress Scale-Short Form, DERS = Difficulties in Emotion Regulation Scale, Diff. = Difference, EDE = Eating Disorder Examination, ES = Effect Size, MASC = Multidimensional Anxiety Scale for Children, MGH-HS = Massachusetts General Hospital - Hair Pulling Scale, Multisensory Learning Aide = MLA, NIMH-GOCS = National Institute of Mental Health Global Obsessive Compulsive Scale, PAAQ = Parental Acceptance and Action Questionnaire, SCAS-C = Spence Children's Anxiety Scale-Child, SCAS-P = Spence Children's Anxiety Scale-Parent, Sig. = Significant, Stat An = Statistical Analysis, VLQ = Valued Living Questionnaire, YSR = Youth Self Report
Time point: FU = Follow up, Post-int = Post-intervention

Discussion

The aim of this systematic literature review was to identify and synthesise research reporting on the

use of ACT as prevention or an intervention for mental health difficulties experienced by children

and young people. Ten studies were identified, reporting on interventions used primarily with clinical samples in the community. Seven of these studies reported a significant reduction in symptoms of mental health difficulties and of the 8 studies that used a measure of psychological flexibility, six reported improvement.

The present findings suggest that ACT is being researched more, particularly in comparison to findings from previous reviews. Swain et al. (2015a) completed the most recent review about ACT interventions with children and identified 21 papers, published between 2000 and 2014 which concerned a range of difficulties such as physical health, mental health difficulties and behaviour difficulties. The search strategy used in the present review (initially searching for all articles relevant to ACT and young people) meant that studies concerning ACT for young people experiencing a range of difficulties and not just mental health problems were initially identified. As indicated in Figure 1. and Appendix B, there were 35 full-text articles to assess, and all but one of these was concerned solely with ACT for children. Thus, as a comparison of the number of studies reported in both reviews, there were: 21 articles in 14 years identified by Swain et al. (2015a) and 34 articles in 3 years identified by the present review. This suggests there has been a substantial increase in the number of articles concerning ACT with children.

A previous review undertaken by Murrell and Scherbath (2006) concluded that research about the use of ACT with children required validated assessment measures, bigger sample sizes and increased use of controlled designs, all of which were evident in the present review. This is particularly apparent when the findings are compared with Swain et al. (2015a), who identified several articles reporting on case studies or case series designs and a median sample size of 8 participants. The present review found that the median sample size was 48 participants, and more than half of the included studies used a RCT design, which is considered the ideal standard for isolating the effects of an intervention and as a high level of clinical evidence (Odom et al., 2005; Burns, Rohrich & Chung,

2011). This appears to indicate that the quality of the ACT evidence base is increasing in addition to the quantity of published articles.

The findings of the present review highlighted that individuals who received an ACT intervention frequently reported a reduction in mental health symptoms, although for the two studies where an active control was used as a comparison, ACT was not shown to be more effective (Hancock et al., 2016; Swain et al., 2015b). This is consistent with findings from the adult literature, where reviews of ACT have concluded that ACT outperforms control conditions and treatment as usual, but not active CBT treatment (A-Tjak et al., 2015; Powers et al., 2009). The findings suggest that ACT could be more widely considered as an intervention approach and this may broaden suitable treatment options available for young people, including those who do not engage with or who do not respond to CBT. For example, Kendall, Settipani and Cummings (2012) have reported that approximately 35 to 40 percent of young people with anxiety do not respond to CBT treatment. Coyne et al. (2011) have hypothesised that the experiential and metaphorical techniques that are used to deliver ACT may be more appropriate for children than traditional methods of challenging cognitions.

Although the aim of ACT is to increase psychological flexibility (Hayes et al., 2004; Wilson & Murrell, 2004), and improvement in mental health symptoms is considered to be a secondary gain (Hayes et al., 2006), the review found that two studies did not use any measures associated with psychological flexibility (Buckhardt et al., 2016, 2017). Findings from the eight studies that did include measures of psychological flexibility appear to be consistent with the theory that ACT decreases distress by increasing psychological flexibility and changing the relationship with thoughts (Hayes et al., 2004; Wilson & Murrell, 2004); a reduction in mental health symptoms was always seen alongside improvement in psychological flexibility. It is not possible to conclude that the change in psychological flexibility was responsible for the reduction in mental health difficulties. However further study of processes of change would be important to investigate in studies concerning ACT for

children and young people. Mediational analyses of ACT interventions with adults have found measures of psychological flexibility, acceptance, defusion and values are successful mediators (Hayes et al., 2013).

It is also of note that the studies which used CBT as well as ACT (Hancock et al., 2016; Swain et al., 2015b), saw an improvement in acceptance and thought defusion for both participants in the ACT and CBT groups. Again, no firm conclusions can be drawn from this, but it may be indicative that ACT and CBT change processes are not as distinct as hypothesised. Future research needs to account for multiple mediators of interest (such as the components of the hexaflex) and these need to be assessed by validated measures which are sensitive to change. In addition, change should be assessed at frequent time points (such as every session) to help measure changing effects of the intervention, and ideally in comparison to mediators of interest for active control conditions.

The methodological quality of the included studies varied, but overall the quality was good, with the average quality appraisal score being 70.24%. Consistent areas of strengths (and where more points were typically awarded during quality appraisal) often related to how the study had being reported, for example, providing a clear theoretical framework, a rationale for the use of selected research tools and details about the research sites used. Domains which typically scored fewer points included a lack of service user involvement in study design, samples sizes that did not consider statistical power and samples that were not representative of the wider group of young people being studied. The lower scores that were allocated due to methodological factors and limitations in study designs might be a reflection of how the evidence base for ACT is still developing and research is not yet focused on large trials with big samples of participants. Many of the studies in this review were smaller and conducted with clinical populations recruited from community teams. A further weakness is that many of the studies used pre and post-intervention measures only. This limits

conclusions as changes cannot be fully attributed to the intervention (Thiese, 2014), outcomes are more likely to be influenced by confounding factors and other variables may explain the findings, and consequently the results are less credible (Harris et al., 2006). In addition, only using outcome measures before the intervention and immediately after the intervention means there is limited data about the long-term changes associated with ACT. Collecting data at frequent time points and repeating measures after the intervention has been completed would allow for longitudinal data, such as information about the stability of changes over time to be obtained.

Strengths and Limitations

The current review provides an overview of studies relating to ACT interventions for mental health difficulties (and the prevention of these) published since 2015. The search strategy involved identifying all articles concerned with ACT and young people which increases the chances that all eligible studies were identified. Searching the ACBS website is also likely to have increased the likelihood of identifying all relevant articles as this is widely used as a forum to share work by researchers and clinicians interested in ACT. Articles that were not published in a peer-reviewed journal or were not published in English (Habibollahi & Soltanizadeh, 2016) were not included, which may mean articles that could have been relevant to the study aims were excluded. The QATSDD quality appraisal tool (Sirriyeh et al., 2012) was helpful because it allowed studies of several different designs to be subject to the same appraisal process, but it means that finer details of the study design were not critically appraised. For example, consideration of how much training the intervention providers had, and risk of researcher bias were not included but can be useful for evaluating methodologies used. Some of this information has been extracted and reported in the hope it will be useful for understanding the current evidence base for ACT.

A further limitation of this review is the heterogeneity of the studies reviewed. The studies included report on the use of ACT for a variety of mental health difficulties, using a range of intervention

formats of varying lengths, and with a range of different facilitators with different levels of knowledge and training. In addition, all but one of the studies was undertaken in the USA or Australia, and many studies used a combination of ACT with another approach (e.g. positive psychology, Acceptance-Based Separated Family Treatment, motivational interviewing, multisensory learning aide). This heterogeneity means it is difficult to generalise the findings to other countries or a particular mental health difficulty.

Recommendations for Future Research

This review highlights the need for future research with samples which are appropriately powered for hypothesis testing, the need for multiple research sites to increase generalisability of findings, and for research designs that are more controlled and rigorous, and which allow for information about outcomes and mechanisms of change to be collected. None of the studies included in this review utilised service user involvement; which might be beneficial for future research and help ensure study designs are acceptable to young people and families. Similarly, none of the included studies obtained any qualitative information about how children and young people experience ACT, which would be useful to address, especially given the high levels of experiential engagement the approach involves.

Although there is still a relatively small number of studies concerning ACT with children and young people at present, the finding that ACT leads to similar changes to CBT is important for clinicians and policy-makers to be aware of. Knowledge about all effective interventions allows for increased treatment options and increased choice of evidence-based psychological treatment for service users, which is often outlined in policy guidance (Matrics Cymru, 2017; NICE, 2019). At present there is no guidance available about how ACT should be implemented (for example, how many sessions and over what time period), but further methodologically rigorous studies could be used to inform policy

guidance regarding the use of ACT with specific client groups or in particular settings.

Conclusion

ACT is increasingly being utilised to support children and young people with a range of difficulties including their mental health and well-being. Evidence suggests it is useful in increasing psychological flexibility and reducing mental health symptoms, although further rigorous studies focusing on how these processes occur is needed. If ACT is shown to be as effective as other therapies which are available, it could be a useful alternative, particularly as emerging evidence suggests that ACT may be useful as a preventative measure, as a trans-diagnostic approach to managing mental health, and for children and young people of all ages.

References

A-Tjak, J. G., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A., & Emmelkamp, P. M. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, *84*(1), 30-36. https://doi.org/10.1159/000365764

Atkins, P. W., Ciarrochi, J., Gaudiano, B. A., Bricker, J. B., Donald, J., Rovner, G., ... & Hayes, S. C. (2017). Departing from the essential features of a high quality systematic review of psychotherapy: A response to Öst (2014) and recommendations for improvement. *Behaviour Research and Therapy*, *97*, 259-272. https://doi.org/10.1016/j.brat.2017.05.016

Azadeh, S. M., Kazemi-Zahrani, H., & Besharat, M. A. (2016). Effectiveness of acceptance and commitment therapy on interpersonal problems and psychological flexibility in female high school students with social anxiety disorder. *Global Journal of Health Science*, *8*(3), 131-138. https://doi.org/10.5539/gjhs.v8n3p131

Barney, J. Y., Field, C. E., Morrison, K. L., & Twohig, M. P. (2017). Treatment of pediatric obsessive compulsive disorder utilizing parent-facilitated acceptance and commitment therapy. *Psychology in the Schools*, *54*(1), 88-100. https://doi.org/10.1002/pits.21984

Burckhardt, R., Manicavasagar, V., Batterham, P. J., & Hadzi-Pavlovic, D. (2016). A randomized controlled trial of strong minds: A school-based mental health program combining acceptance and commitment therapy and positive psychology. *Journal of School Psychology*, *57*, 41-52. https://doi.org/10.1016/j.jsp.2016.05.008

Burckhardt, R., Manicavasagar, V., Batterham, P. J., Hadzi-Pavlovic, D., & Shand, F. (2017). Acceptance and commitment therapy universal prevention program for adolescents: A feasibility study. *Child and Adolescent Psychiatry and Mental Health*, *11*(1), 27-37. https://doi.org/10.1186/s13034-017-0164-5

Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011). The levels of evidence and their role in evidence-based medicine. *Plastic and Reconstructive Surgery*, *128*(1), 305-310. https://doi.org/10.1097/prs.0b013e318219c171

Cederberg, J. T., Dahl, J., von Essen, L., & Ljungman, G. (2017). An acceptance-based intervention for children and adolescents with cancer experiencing acute pain–a single-subject study. *Journal of Pain Research*, *10*, 2195-2203. https://doi.org/10.2147/jpr.s139087

Chang, D., & Hwang, S. (2017). The development of anger management program based on acceptance and commitment therapy for youth taekwondo players. *Journal of Exercise Rehabilitation*, *13*(2), 160-167. https://doi.org/10.12965/jer.1732882.441

Ciarrochi, J. Bilich, L., & Godsel, C. (2010). Psychological flexibility as a mechanism of change in Acceptance and Commitment Therapy. In R. Baer (Ed.), *Assessing Mindfulness and Acceptance: Illuminating the Processes of Change* (pp. 51-76). Oakland, CA: New Harbinger Publications.

Comer, J. S., Blanco, C., Hasin, D. S., Liu, S. M., Grant, B. F., Turner, J. B., & Olfson, M. (2011). Health-related quality of life across the anxiety disorders. *The Journal of Clinical Psychiatry*, *72*(1), 43-50. https://doi.org/10.4088/jcp.09m05094blu

Copeland, W. E., Angold, A., Shanahan, L., & Costello, E. J. (2014). Longitudinal patterns of anxiety from childhood to adulthood: The Great Smoky Mountains Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *53*(1), 21-33. https://doi.org/10.1016/j.jaac.2013.09.017

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, *60*(8), 837-844. https://doi.org/10.1001/archpsyc.60.8.837

Coyne, L. W., McHugh, L., & Martinez, E. R. (2011). Acceptance and commitment therapy (ACT):

    Advances and applications with children, adolescents, and families. *Child and Adolescent*

    Psychiatric Clinics, *20*(2), 379-399. https://doi.org/10.1016/j.chc.2011.01.010

Eilers, H. J., & Hayes, S. C. (2015). Exposure and response prevention therapy with cognitive defusion

    exercises to reduce repetitive and restrictive behaviors displayed by children with autism

    spectrum disorder. *Research in Autism Spectrum Disorders*, *19*, 18-31.

    https://doi.org/10.1016/j.rasd.2014.12.014

Enoch, M. R., & Dixon, M. R. (2017). The use of a child-based acceptance and commitment therapy

    curriculum to increase attention. *Child & Family Behavior Therapy*, *39*(3), 200-224.

    https://doi.org/10.1080/07317107.2017.1338454

Enoch, M. R., & Dixon, M. R. (2018). Neuro-Typical Children Outcomes from an Acceptance and

    Commitment Therapy Summer Camp. *Behavior Analysis in Practice*, 1-10.

    https://doi.org/10.1007/s40617-018-00319-0

Erawati, E., Triredjeki, H., & Sarwono, B. (2018). The influence of acceptance and commitment

    therapy on fulfillment of adolescent's mental health development task and their coping

    skills. *Journal of Indian Association for Child & Adolescent Mental Health*, *14*(3), 60-77.

Fletcher, L., & Hayes, S. C. (2005). Relational frame theory, acceptance and commitment therapy,

    and a functional analytic definition of mindfulness. *Journal of Rational-Emotive and*

    Cognitive-Behavior Therapy, *23*(4), 315-336. https://doi.org/10.1007/s10942-005-0017-7

Forman, E. M., & Herbert, J. D. (2009). New directions in cognitive behavior therapy: Acceptance-

    based therapies. In W. O'Donohue & J. E., Fisher (Eds.) *General principles and empirically*

    supported techniques of cognitive behavior therapy (pp.102-114). Hoboken, NJ: Wiley.

Gunnell, D., Kidger, J., & Elvidge, H. (2018). Adolescent mental health in crisis. *BMJ*, 361, K2608.

    https://doi.org/10.1136/bmj.k2608

Habibollahi, A., & Soltanizadeh, M. (2016). Efficacy of acceptance and commitment therapy on body dissatisfaction and fear of negative evaluation in girl adolescents with body dysmorphic disorder. *Journal of Mazandaran University of Medical Sciences*, *25*(134), 278-290.

Hacker, T., Stone, P., & MacBeth, A. (2016). Acceptance and commitment therapy–Do we know enough? Cumulative and sequential meta-analyses of randomized controlled trials. *Journal of Affective Disorders*, *190*, 551-565. https://doi.org/10.1016/j.jad.2015.10.053

Hancock, K. M., Swain, J., Hainsworth, C. J., Dixon, A. L., Koo, S., & Munro, K. (2016). Acceptance and commitment therapy versus cognitive behavior therapy for children with anxiety: Outcomes of a randomized controlled trial. *Journal of Clinical Child & Adolescent Psychology*, *47*(2), 296-311. https://doi.org/10.1080/15374416.2015.1110822

Harris, R., & Hayes, S. (2009). ACT Made Simple: An easy-to-read primer on acceptance and commitment therapy. In S.C. Hayes, K. D. Strosahl, & K. G. Wilson. *Acceptance and Commitment Therapy. An experiential approach to behavior change*. New York, NY: Guilford Press.

Harris, A. D., McGregor, J. C., Perencevich, E. N., Furuno, J. P., Zhu, J., Peterson, D. E., & Finkelstein, J. (2006). The use and interpretation of quasi-experimental studies in medical informatics. *Journal of the American Medical Informatics Association*, *13*(1), 16-23. https://doi.org/10.1197/jamia.M1749

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, *35*(4), 639-665. https://doi.org/10.1016/S0005-7894(04)80013-3

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (Eds.). (2001). *Relational Frame Theory: A Post-Skinnerian account of human language and cognition.* New York, NY: Plenum Press.

Hayes, S. C., Levin, M.E., Plumb-Vilardaga, J., Villatte, J.L., & Pistorello, J. (2013). Acceptance and commitment therapy and contextual behavioral science: Examining the progress of a distinctive model of behavioral and cognitive therapy. *Behavior Therapy, 44*(2), 180-198. https://doi.org/10.1016/j.beth.2009.08.002

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1-25. https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S.C., Strosahl, K.D., Bunting, K., Twohig, & Wilson, K.G. (2004). What is acceptance and commitment therapy? In S.C. Hayes & K.D. Strosahl (Eds.) *A practical guide to acceptance and commitment therapy* (pp. 1-29). New York, NY: Springer.

Hayes, S. C., Villatte, M., Levin, M., & Hildebrandt, M. (2011). Open, aware, and active: Contextual ppproaches as an emerging trend in the behavioral and cognitive therapies. *Annual Review of Clinical Psychology*, 7(1), 141–168. https://doi.org/10.1146/annurev-clinpsy-032210-104449

Hoagwood, K. E., Atkins, M., Kelleher, K., Peth-Pierce, R., Olin, S., Burns, B., ... & Horwitz, S. M. (2018). Trends in children's mental health services research funding by the National Institute of Mental Health from 2005 to 2015: A 42% reduction. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57(1), 10-13. https://doi.org/10.1016/j.jaac.2017.09.433

Hooper, N. & Larsson, A. (2015). *The research journey of acceptance and commitment therapy (ACT).* Hampshire, United Kingdom: Palgrave Macmillan.

Huestis, S., Kao, G., Dunn, A., Hilliard, A., Yoon, I., Golianu, B., & Bhandari, R. (2017). Multi-family pediatric pain group therapy: Capturing acceptance and cultivating change. *Children*, *4*(12), 106-121. https://doi.org/10.3390/children4120106

Kallesøe, K. H., Schroder, A., Preuss, T., Wickse, R., Fink, P., & Raskis, C. U. (2016). Feasibility of

    acceptance and commitment group therapy for adolescents with severe functional somatic

    syndromes: A pilot study. *Journal of Behavioural Medicine,* 23, S51.

Kallesøe, K. H., Schröder, A., Jensen, J. S., Preuss, T., Wicksell, R. K., Fink, P., & Rask, C. U. (2017).

    Group-based Acceptance and Commitment Therapy for severe functional somatic

    syndromes in adolescents–uncontrolled pilot study. *Journal of Psychosomatic Research*, *97*,

    155-156. http://dx.doi.org/10.1136/bmjopen-2016-012743

Kanstrup, M., Wicksell, R., Kemani, M., Wiwe Lipsker, C., Lekander, M., & Holmström, L. (2016). A

    clinical pilot study of individual and group treatment for adolescents with chronic pain and

    their parents: Effects of acceptance and commitment therapy on functioning. *Children*, *3*(4),

    30-48. https://doi.org/10.3390/children3040030

Kemani, M. K., Kanstrup, M., Jordan, A., Caes, L., & Gauntlett-Gilbert, J. (2018). Evaluation of an

    intensive interdisciplinary pain treatment based on acceptance and commitment therapy for

    adolescents with chronic pain and their parents: A nonrandomized clinical trial. *Journal of*

    Pediatric Psychology, *43*(9), 981-994. https://doi.org/10.1093/jpepsy/jsy031

Kemani, M. K., Olsson, G. L., Holmström, L., & Wicksell, R. K. (2016). Exploring changes in valued

    action in the presence of chronic debilitating pain in acceptance and commitment therapy

    for youth–A single-subject design study. *Frontiers in Psychology*, *7*.

    https://doi.org/10.3389/fpsyg.2016.01984

Kendall, P. C., Settipani, C. A., & Cummings, C. M. (2012). No need to worry: The promising future of

    child anxiety research. *Journal of Clinical Child & Adolescent Psychology*, *41*(1), 103-115.

    https://doi.org/10.1080/15374416.2012.632352

Lee, E. B., Homan, K. J., Morrison, K. L., Ong, C. W., Levin, M. E., & Twohig, M. P. (2018). Acceptance

and commitment therapy for trichotillomania: A randomized controlled trial of adults and

adolescents. *Behavior Modification*. https://doi.org/10.1177/0145445518794366

Makki, M., Hill, J. F., Bounds, D. T., McCammon, S., Mc Fall-Johnsen, M., & Delaney, K. R. (2018).

Implementation of an ACT curriculum on an adolescent inpatient psychiatric unit: A quality

improvement project. *Journal of Child and Family Studies*, *27*(9), 2918-2924.

https://doi.org/10.1007/s10826-018-1132-2

Martin, S., Wolters, P. L., Toledo-Tamula, M. A., Schmitt, S. N., Baldwin, A., Starosta, A., ... &

Widemann, B. (2016). Acceptance and commitment therapy in youth with

neurofibromatosis type 1 (NF1) and chronic pain and their parents: A pilot study of feasibility

and preliminary efficacy. *American Journal of Medical Genetics Part A*, *170*(6), 1462-1470.

https://doi.org/10.1002/ajmg.a.37623

Matrics Cymru. (2017). *Matrics Cymru: Guidance for delivering evidence-based psychological therapy

in Wales.* Cardiff, Wales: Public Health Wales.

McHugh, L. (2011). A new approach in psychotherapy: ACT (acceptance and commitment

therapy). *The World Journal of Biological Psychiatry*, *12*(1), 76-79.

https://doi.org/10.3109/15622975.2011.603225

McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia medica*, *22*(3), 276-282.

http://dx.doi.org/10.11613/BM.2012.031

Meagher, R., Chessor, D., & Fogliati, V. J. (2018). Treatment of pathological worry in children with

acceptance-based behavioural therapy and a multisensory learning aide: A pilot

study. *Australian Psychologist*, *53*(2), 134-143. https://doi.org/10.1111/ap.12288

Moazzezi, M., Moghanloo, V. A., Moghanloo, R. A., & Pishvaei, M. (2015). Impact of acceptance and

commitment therapy on perceived stress and special health self-efficacy in seven to fifteen-

year-old children with diabetes mellitus. *Iranian Journal of Psychiatry and Behavioral Sciences*, *9*(2), e956. https://doi.org/10.17795/ijpbs956

Moghanloo, V. A., Moghanloo, R. A., & Moazezi, M. (2015). Effectiveness of acceptance and commitment therapy for depression, psychological well-being and feeling of guilt in 7-15 years old diabetic children. *Iranian Journal of Pediatrics*, *25*(4), e2436. https://doi.org/10.5812/ijp.2436

Mohammadi, M., Farhoudian, A., Shoaee, F., Younesi, S. J., & Dolatshahi, B. (2015). Aggression in juvenile delinquents and mental rehabilitation group therapy based on acceptance and commitment. *Iranian Rehabilitation Journal*, *13*(2), 5-9.

Murrell, A. R., & Scherbarth, A. J. (2006). State of the research & literature address: ACT with children, adolescents and parents. *International Journal of Behavioral Consultation and Therapy*, *2*(4), 531-543. http://dx.doi.org/10.1037/h0101005

Murrell, A. R., Steinberg, D. S., Connally, M. L., Hulsey, T., & Hogan, E. (2015). Acting out to ACTing on: A preliminary investigation in youth with ADHD and co-morbid disorders. *Journal of Child and Family Studies*, *24*(7), 2174-2181. https://doi.org/10.1007/s10826-014-0020-7

NICE. (2019). *National Institute for Health and Care Excellence: Shared Decision Making.* Retrieved from: https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-guidelines/shared-decision-making

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children*, *71*(2), 137-148. https://doi.org/10.1177/001440290507100201

Petts, R. A., Duenas, J. A., & Gaynor, S. T. (2017). Acceptance and commitment therapy for adolescent depression: Application with a diverse and predominantly socioeconomically

disadvantaged sample. *Journal of Contextual Behavioral Science*, *6*(2), 134-144.

https://doi.org/10.1016/j.jcbs.2017.02.006

Powers, M. B., Vörding, M. B. Z. V. S., & Emmelkamp, P. M. (2009). Acceptance and commitment

therapy: A meta-analytic review. *Psychotherapy and Psychosomatics*, *78*(2), 73-80.

https://doi.org/10.1159/000190790

Puolakanaho, A., Lappalainen, R., Lappalainen, P., Muotka, J. S., Hirvonen, R., Eklund, K. M., ... &

Kiuru, N. (2019). Reducing stress and enhancing academic buoyancy among adolescents

using a brief web-based program based on acceptance and commitment therapy: A

randomized controlled trial. *Journal of Youth and Adolescence*, *48*(2), 287-305.

https://doi.org/10.1007/s10964-018-0973-8

Ruiz, F. J. (2012). Acceptance and commitment therapy versus traditional cognitive behavioral

therapy: A systematic review and meta-analysis of current empirical evidence. *International

Journal of Psychology and Psychological Therapy*, *12*(3), 333-358.

Sirriyeh, R., Lawton, R., Gardner, P., & Armitage, G. (2012). Reviewing studies with diverse designs:

the development and evaluation of a new tool. *Journal of Evaluation in Clinical

Practice*, *18*(4), 746-752. https://doi.org/10.1111/j.1365-2753.2011.01662.x

Simon, E., Driessen, S., Lambert, A., & Muris, P. (2019). Challenging anxious cognitions or accepting

them? Exploring the efficacy of the cognitive elements of cognitive behaviour therapy and

acceptance and commitment therapy in the reduction of children's fear of the

dark. *International Journal of Psychology*. https://doi.org/10.1002/ijop.12540

Swain, J., Hancock, K., Dixon, A., & Bowman, J. (2015a). Acceptance and Commitment Therapy for

children: A systematic review of intervention studies. *Journal of Contextual Behavioral

Science*, *4*(2), 73-85. https://doi.org/10.1016/j.jcbs.2015.02.001

Swain, J., Hancock, K., Hainsworth, C., & Bowman, J. (2015b). Mechanisms of change: Exploratory outcomes from a randomised controlled trial of acceptance and commitment therapy for anxious adolescents. *Journal of Contextual Behavioral Science*, *1*(4), 56-67. https://doi.org/10.1016/j.jcbs.2014.09.001

Thiese, M. S. (2014). Observational and interventional study design types: An overview. *Biochemia Medica, 24*(2), 199-210. https://doi.org/10.11613/BM.2014.022

Thurstone, C., Hull, M., Timmerman, J., & Emrick, C. (2017). Development of a motivational interviewing/acceptance and commitment therapy model for adolescent substance use treatment. *Journal of Contextual Behavioral Science*, *6*(4), 375-379. https://doi.org/10.1016/j.jcbs.2017.08.005

Tighe, J., Shand, F., Ridani, R., Mackinnon, A., De La Mata, N., & Christensen, H. (2017). Ibobbly mobile health intervention for suicide prevention in Australian Indigenous youth: A pilot randomised controlled trial. *BMJ open*, *7*(1), e013518. http://dx.doi.org/10.1136/bmjopen-2016-013518

Timko, C. A., Zucker, N. L., Herbert, J. D., Rodriguez, D., & Merwin, R. M. (2015). An open trial of acceptance-based separated family treatment (ASFT) for adolescents with anorexia nervosa. *Behaviour Research and Therapy*, *69*, 63-74. https://doi.org/10.1016/j.brat.2015.03.011

Tracey, D., Gray, T., Truong, S., & Ward, K. (2018). Combining acceptance and commitment therapy with adventure therapy to promote psychological wellbeing for children at-risk. *Frontiers in Psychology*, *9*, 1565-1574. https://doi.org/10.3389/fpsyg.2018.01565

Van der Gucht, K., Griffith, J. W., Hellemans, R., Bockstaele, M., Pascal-Claes, F., & Raes, F. (2017). Acceptance and commitment therapy (ACT) for adolescents: Outcomes of a large-sample,

school-based, cluster-randomized controlled trial. *Mindfulness*, *8*(2), 408-416.

https://doi.org/10.1007/s12671-016-0612-y

Vilardaga, R., Hayes, S. C., & Schelin, L. (2007). Philosophical, theoretical and empirical foundations

of acceptance and commitment therapy. *Anuario de Psicología*, *38*(1), 117-128.

Wilson, K. G., & Murrell, A. R. (2004). Values work in acceptance and commitment therapy. In S.C.

Hayes, V.M. Follette & M.M. Linehan (Eds.) *Mindfulness and acceptance: Expanding the*

cognitive–behavioral tradition. (pp.120-151) New York, NY: Guilford Press.

Paper 2: Empirical Paper

Developing a Brief Universal Acceptance and Commitment Therapy Intervention in a Secondary School: An Acceptability and Feasibility Study

Developing a Brief Universal Acceptance and Commitment Therapy Intervention in a Secondary School: An Acceptability and Feasibility Study

Abstract

This study aimed to deliver a short, universal Acceptance and Commitment Therapy (ACT) intervention in a school, and to obtain information about acceptability and feasibility from students, staff and the intervention facilitators to inform the development of a randomised controlled trial (RCT). Two classes of 12-13 year olds in a secondary school were allocated to participate in three skills workshops. For one class the workshops were based on ACT and for the other, Cognitive Behaviour Therapy. A third class attended their lessons as usual as a control group. Students completed questionnaires about thought fusion, avoidance, mindfulness, stress, well-being, quality of life and mental health symptoms. Students, school staff and the workshop facilitators provided feedback about the acceptability and feasibility of implementing the workshops. Descriptive statistics indicate that students in the ACT group reported higher levels of mindfulness, psychological flexibility, well-being and quality of life, and lower levels of avoidance behaviours and thought fusion following the workshops. Qualitative findings indicated the workshops to be acceptable to staff and students and feasible to deliver within the school timetable. Implications of the findings are discussed in relation to how they would inform a cluster RCT assessing the efficacy of a brief non-targeted ACT intervention in a school setting.

Introduction

It is estimated that between 10 and 22% of children and adolescents have experienced a mental health difficulty (Costello, Egger & Angold, 2005; Green, McGinnity, Meltzer, Ford & Goodman, 2005; Merikangas et al., 2010). For lifetime mental health difficulties, it is estimated that approximately half have started by the mid-teens (Kessler et al., 2007), although onset can be younger, with the median age of onset of anxiety and mood disorders estimated to be 6 years and 13 years, respectively (Merikangas et al., 2010). In the United Kingdom (UK), referrals to child and adolescent mental health services increased by 26.3% between 2013 and 2018, but 21.1% of referrals were not accepted, equating to approximately 55,800 children who were referred but not seen (Crenna-Jennings & Hutchinson, 2018). If mental health difficulties remain untreated, they are likely to persist (Costello, Mustillo, Erkanli, Keeler & Angold, 2003), leading to poorer outcomes as adults such as difficulties with interpersonal functioning, poorer physical health and lower income (Comer et al., 2011; Copeland, Angold, Shanahan & Costello, 2014).

Responsibility for student well-being is increasingly falling to schools with 90 percent of costs related to child and adolescent mental health incurred by the education sector (Knapp et al., 2016). Many schools have introduced interventions to help prevent anxiety and depression, with results showing promising findings (Calear & Christensen, 2010; Nehmy, 2010; Neil & Christensen, 2007, 2009). A recent meta-analysis of preventative mental health programmes delivered in schools found a small effect size, which is likely to equate to meaningful improvement at the population level (Werner-Seidler, Perry, Calear, Newby & Christensen, 2017).

Universal approaches, which provide non-targeted interventions to prevent mental health difficulties, may be appealing to schools as they are less intrusive, easier to incorporate into school structures and do not exclude students without any mental health difficulties who may still benefit

(Fazel, Hoagwood, Stephan & Ford, 2014). Universal programmes are also advantageous in that they may prevent mental health difficulties from occurring (Cuijpers, van Straten, Smit, Mihalopoulos & Beekman, 2008), delay the onset of difficulties (Merry et al., 2012) and reduce the number of young people subsequently requiring support from services (Donovan & Spence, 2000; Muñoz, Cuijpers, Smit, Barrera & Leykin, 2010). Barriers to engaging with services such as location, time, and cost can also be alleviated by interventions which are incorporated into the school curriculum (Barrett & Pahl, 2006).

Acceptance and Commitment Therapy (ACT) is one approach which is appropriate for preventing and reducing mental health difficulties. Rather than being a model for a specific mental health difficulty, it emphasises basic principles to help alleviate psychological distress, making it appropriate for individuals both with and without a mental health difficulty (Hayes, Levin, Plumb-Vilardaga, Villatte & Pistorello, 2013; Hayes, Villatte, Levin & Hildebrandt, 2011). ACT aims to increase psychological flexibility and decrease avoidance behaviours, both of which are associated with mental health symptoms (Greco, Lambert & Baer, 2008; Kashdan & Rottenberg, 2010). ACT incorporates mindfulness and encourages values-directed behaviour even when experiencing intense emotions. Both mindfulness and regulating emotions, are associated with positive mental health outcomes (Kallapiran, Koo, Kirubakaran & Hancock, 2015; Roemer, Williston & Rollins, 2015). Although ACT does not aim to reduce mental health symptoms, it has been found to reduce symptoms of mental distress as a secondary gain (Hayes, Luoma, Bond, Masuda & Lillis, 2006). ACT interventions have been used with children and young people with favourable findings indicating a decrease in difficulties such as eating disorders, anxiety and chronic pain (Murrell & Scherbarth, 2011; Swain, Hancock, Dixon & Bowman, 2015).

ACT interventions have been used outside of traditional mental health services and have been delivered in schools in Australia (Buckhardt, Manicavasagar, Batterham & Hadzi-Pavlovic, 2016;

Buckhardt, Manicavasagar, Batterham, Hadzi-Pavlovic & Shand, 2017; Livheim et al., 2015) the

United States of America (USA) (Murrell, Steinberg, Connally, Hulsey & Hogan, 2015; Theodore-

Oklota, Orsillo, Lee & Vernig, 2014) and some European countries such as Belgium (Van der Gucht et

al., 2017) and Sweden (Livheim et al., 2015). Several studies have reported favourable findings for

ACT in schools (Buckhardt et al., 2016; Livheim et al., 2015), whereas others have identified that

methodological limitations (non-completion of outcome measures, research samples with little

generalisability to wider populations) make it difficult to draw conclusions (Murrell et al., 2015).

Variance in methodologies also means it is difficult to assess how ACT is best used in schools, in

terms of which students receive the intervention, who is best-placed to deliver it and the time

period of delivery. Some studies have used targeted populations (Livheim et al., 2015; Murrell et al.,

2015) and others have used non-targeted populations (Buckhardt et al., 2016, 2017; Van der Gucht

et al., 2017; Theodore-Oklota et al., 2014). Similarly, some interventions have been delivered by

clinicians with specific ACT training (Buckhardt et al., 2016, 2017; Murrell et al., 2015) and others by

teachers or psychology graduates with limited ACT training (Livheim et al., 2015; Van der Gucht et

al., 2017). Interventions have frequently been delivered weekly and often over a 4-8 week period

(Buckhardt et al., 2017; Livheim et al., 2015; Murrell et al., 2015), which is potentially time-

consuming for schools.

To date, there appears to be no research reporting on the use of ACT as a universal intervention in

UK schools. The current study had several aims. Firstly, to develop and evaluate the acceptability and

feasibility of a brief ACT intervention for a universal population of students from a UK secondary

school. Secondly, to provide an ACT intervention delivered by clinicians trained in ACT (to increase

fidelity to the model) and over fewer sessions (to minimise disruption to school timetables). Thirdly,

to obtain information about feasibility and acceptability from staff, students and intervention

facilitators, which could be used to inform a randomised controlled trial (RCT) of the efficacy of ACT

as a universal intervention for school students in the future. Information about feasibility and acceptability was concerned with whether the research *can* be implemented (Orsmond & Cohn, 2015), and *how* it would need to be implemented (Bowen et al., 2009). Specifically, this study aimed to gather information about: whether the workshops were acceptable to programme deliverers and recipients; whether there is demand for the programme; whether it can be implemented with existing resources; how sampling, recruitment and randomisation would need to be undertaken, and to identify any other refinements or modifications that might be needed in a RCT.

Method

Participants and Procedure

A secondary school in England agreed to participate in the research study, allowing the researchers to deliver three workshops aiming to increase student mental well-being within their PSHE (Personal, Social and Health Education) lessons. Participants in the workshops were 90 Year 8 students (aged 12-13 years). A comparison group and control group were also identified to deliver the workshops similarly to a RCT, the 'gold standard' research design for assessing efficacy (Burns, Rohrich & Chung, 2011; Odom et al., 2005). Using a comparison and a control group allowed for information about acceptability and feasibility of the wider study design (and not just the ACT intervention) to be obtained. For example, experiences of receiving an alternative intervention, of being in a control group, and of how a RCT design might fit in with a typical school day.

Three classes were allocated pragmatically to each group based on the school timetable and the availability of the intervention facilitators. The intervention group received a skills-based workshop based on ACT, and the comparison group received a skills-based workshop based on Cognitive Behaviour Therapy (CBT), which was selected as it has been widely delivered in schools (Merry et al., 2012; Neil & Christensen, 2007; Stice, Shaw, Bohon, Marti & Rohde, 2009; Stockings et al., 2016) and

used as a preventative intervention for adolescent mental health difficulties (Stice & Shaw, 2004; Stice et al., 2009). The control group attended their PSHE lesson as usual. The three workshops were an hour in duration each and were spaced approximately 4 weeks apart, timetabled within the class' scheduled PSHE lessons. There were 31, 30 and 29 students in the ACT, CBT and control groups respectively. The school provided written confirmation that delivering the workshops in this format was consistent with the school curriculum (Appendix D). Ethical approval was obtained from the Cardiff University School of Psychology Board of Ethics (Appendix E).

Consent

The researchers initially sent a letter to all parents/carers of students in the identified classes to explain the workshops and outcome measures to evaluate these (Appendix F). Parents/carers were informed that the workshops were being delivered as part of the curriculum, but they had the choice of opting their child out of completing the evaluative measures. Parents/carers had two weeks to contact the researchers, or to request their child did not complete any measures.

Prior to the first workshops the students were sent the information sheet and consent forms electronically. These outlined the research study and asked if the students would be willing to complete questionnaires to help evaluate the workshops. Students were also given the option to participate in a focus group to discuss their experience of the workshops. Students could consent to completing the questionnaires but choose not to participate in the focus group.

All participants who were invited to take part in the research (students, class teachers, workshop facilitators) were given information sheets, asked to provide electronic consent, and were given debrief forms (Appendices G-O).

Data Collection

Students completed questionnaires at multiple timepoints: during the week prior to workshop one, during the week following workshop two, during the week following workshop three, and eight weeks after the third workshop. The questionnaires were emailed to the students by the school in an electronic link which took them to a secure survey portal. These were completed as part of PSHE homework time. The information sheet was always included and students were asked to provide their consent to complete the measures each time.

Safeguarding

Each student was issued with a unique identifying number by the school. This was used to, (a) identify which group the students were in (i.e. ACT, CBT or control), (b) protect student anonymity, and (c) for allowing researchers to inform the school of any safeguarding concerns. The school held information which matched the student to their number, and the researchers only had information about which unique identifying numbers corresponded to the ACT, CBT and control groups. The students entered their unique number when they completed the questionnaires.

Students were made aware in the information sheet and consent form that if their questionnaire responses indicated they might be experiencing mental-health related difficulties, their unique identifying number would be shared with the school, allowing the school to identify them and follow their usual safeguarding procedures. This process was followed when a student's responses to the Revised Children's Anxiety and Depression Scale-25 (RCADS-25) (Chorpita, Yim, Moffitt, Umemoto & Francis, 2000), placed them in the borderline range or the clinically significant range, on either of the subscales or the total score for this measure.

Measures

The online survey platform for students included seven questionnaires. These were selected to measure expected outcomes of ACT interventions (such as psychological flexibility and mindfulness), positive indices of psychological well-being (such as low stress, well-being and quality of life), and mental health difficulties.

The Avoidance and Fusion Questionnaire – short form (AFQ-Y8) (Greco et al., 2008)

The AFQ-Y8 consists of 8 items and measures psychological inflexibility. Participants respond to each item using a five-point Likert scale (0 = not at all true, 4 = very true). Summed scores range from 0 to 32, with a higher score indicating increased avoidance, thought fusion, and increased psychological inflexibility. The AFQ-Y8 has been developed using a theoretically cohesive framework and has been found to be reliable and valid with multiple samples of young people, making it appropriate for use with adolescents (Greco et al., 2008).

Child and Adolescent Mindfulness Measure (CAMM) (Greco, Baer & Smith, 2011)

The CAMM consists of 10 items and measures the mindfulness skills of school-aged children and adolescents. Each item requires a response using a five-point Likert scale (0 = never true, 4 = always true). The score for all items are reversed and totalled. Summed scores range from 0-40, with a higher score being indicative of increased mindfulness skills. Higher scores negatively correlate with internalised problems and external behaviour problems. The CAMM has adequate reliability and validity, and is one of the only measures which specifically assesses child mindfulness skills (Greco et al., 2011).

Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT) (Francis, Dawson & Moghaddam, 2015)

The CompACT is a 23-item measure assessing core ACT processes, designed to assess change in

psychological flexibility over time (Francis et al., 2015). Each item requires a response using a seven-point Likert scale (0 = strongly disagree, 6 = strongly agree), with the scores mapping onto three subscales: openness to experience, behavioural awareness and meaningful activity. The scores from each item are summed, with the scoring for some items being reversed first. Higher scores indicate higher abilities in each area. The scores of each subscale are totalled to get an overall score of psychological flexibility. The overall score ranges from 0-138, but the maximum score for each subscale is different and scores range from 0-60 for openness to experience, 0-30 for behavioural awareness and 0-48 for meaningful activity. The CompACT has been designed for use with adults, with research indicating that it has good internal consistency and is consistent with the theory underpinning ACT, with distress and reduced well-being associated with increased psychological inflexibility (Francis, Dawson & Golijani-Moghaddam, 2016). The CompACT was selected for use in this study, as a measure of psychological flexibility which was appropriate for adolescents could not be identified. After considering the language (the Flesch reading ease score for the CompACT indicates the language is 'plain English' and it is 'very easy' to read (DuBay, 2004; Flesch, 1973)), the researchers decided that trialling the CompACT in this feasibility study would help to gather information about whether it can be used with a younger population. For each item of the CompACT the students were asked to also tick a box to indicate if they had not fully understood the statement.

Perceived Stress Scale – 4 item (PSS-4) (Cohen, Kamarck & Mermelstein, 1983)
The PSS is a four-item scale which measures how much an individual perceives their life to be stressful. Responses are recorded using a five-point Likert scale (0 = never, 4 = very often), and half of the items are reversed before scoring. Scores range between 0 and 16, with a higher score indicating higher levels of perceived stress. The PSS has been found to be reliable (Cohen et al., 1983) and is also part of a wellbeing measurement framework for secondary schools (HeadStart, 2017). It is brief and has been used with adolescents in school settings (Estévez, Murgui & Musitu, 2009; Martinelli et al., 2011; Tynes, Giang, Williams & Thompson, 2008; Van Ryzin & Roseth, 2018).

Revised Child Anxiety and Depression Scale – short form (RCADS-25) (Chorpita et al., 2000)

The RCADS-25 is a 25-item questionnaire measuring symptoms of anxiety and depression, in line with the criteria outlined in the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition) (Chorpita, Moffit & Gray, 2005). Responses are given using a four-point Likert scale (0 = never, 3 = always). The overall score is indicative of symptoms of anxiety and depression, but separate scores for anxiety symptoms and depression symptoms are also calculated. Using data about an individual's school grade and gender allows a t score to be calculated, allowing for comparison between individual scores and the wider population of young people. Symptoms are categorised as being within the normal range (t score ≤ 64), the borderline range (t score = 65-69), or clinically significant range (t score ≥ 70) meaning they are likely experiencing difficulties that are similar to a young person who would meet diagnostic criteria for an anxiety or depressive disorder (Chorpita et al., 2000,2005). The RCADS-25 is considered appropriate for both clinical and research use with young people as it has internal consistency, test-retest stability and good convergent and divergent validity (Muris, Meesters & Schouten, 2002).

Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS) (Bartram, Sinclair & Baldwin, 2013; Stewart-Brown et al., 2009)

The SWEMWBS is a seven-item measure assessing well-being and the positive attributes of mental health. Responses are given on a five-point Likert scale (1 = none of the time, 5 = all of the time) and scores are calculated by totalling each item. The total score ranges from 7-35 with a higher score indicating higher levels of well-being (Bartram et al., 2013; Stewart-Brown et al., 2009). The SWEMWBS has been validated with secondary school students, showing that the measure has strong internal consistency and acceptable reliability (McKay & Andretta, 2017), and that it is acceptable and comprehensible to students (Clarke et al., 2011).

World Health Organisation – Five Well-Being Index (WHO-5) (WHO, 1998)

The WHO-5 consists of five items which measure well-being and subjective quality of life. Responses are given using a six-point Likert scale (0 = at no time, 5 = all of the time). Scores from each item are summed and can range from 0-25, with 25 indicating higher levels of well-being and quality of life (WHO, 1998). The WHO-5 is widely used, has high clinical and construct validity, is appropriate for measuring change in well-being, and suitable for children over nine years old (Topp, Østergaard, Søndergaard & Bech, 2015).

Experience of Workshop Questionnaires

To obtain feedback about the workshops, students from the ACT and CBT groups completed a short electronic questionnaire after the third workshop (Appendix P). This consisted of Likert-scale and free text responses to questions about the content of the workshops (e.g. relevance, ease of understanding) and their experience of completing the outcome measures. The students in the control group completed a questionnaire to gather information about their experience and whether they would have liked to attend the workshops (Appendix Q).

Focus Groups

On completion of the workshops, separate focus groups were undertaken with students from the ACT and CBT groups. These aimed to gather more detailed information about helpful and unhelpful elements of the workshops (Appendix R). Students could choose not to attend even if they had initially said they would like to during the consent process.

Interviews with School Staff

A class teacher was present throughout delivery of the ACT and CBT workshops, and one of these teachers also helped with setting up the research project with the school. Each teacher participated in a semi-structured interview to obtain their views about the workshops, their experience of being

involved in the project and to ascertain how they perceived their students to have found the workshops (Appendix S).

Feedback from Workshop Facilitators

The workshop facilitators kept written notes about each workshop to record information about how different elements of the group worked and the timings of the session (Appendix T). They also participated in a semi-structured interview to obtain further feedback (Appendix U).

Data Analysis

The sample was not powered for inferential statistics, and significance testing of hypotheses is not appropriate for feasibility studies (Arain, Campbell, Cooper & Lancaster, 2010; Tickle-Degnen, 2013; Young, 2005). Therefore, for the outcome measures completed by the students, descriptive statistics only (means and standard deviation) were calculated. The focus groups and interviews with school staff and workshop facilitators were all transcribed, then analysed using content analysis, following a process of condensing the data into 'meaning units', identifying codes, and grouping the codes into categories (Erlingsson & Brysiewicz, 2017; Graneheim & Lundman, 2004; Hsieh & Shannon, 2005) (Appendix V). A sample of the transcripts with the meaning units, codes and categories was checked by a colleague for accuracy.

Workshops

ACT Group

Three ACT-based workshops were developed by two of the researchers (VS and CC), based on the DNA-V model, a model of ACT for adolescents, which aims to teach skills to develop social and emotional competence (Hayes & Ciarrochi, 2015). The benefits of teaching social and emotional

learning in schools has been outlined (Hayes & Ciarrochi, 2016), with research indicating that

interventions to develop social and emotional learning has led to improved social and emotional

skills, improved behaviour, and academic achievement (Durlak, Weissberg, Dymnicki, Taylor &

Schellinger, 2011). Emotional awareness is also associated with increased quality of social support

for adolescents (Roswell, Ciarrochi, Deane & Heaven, 2016) and is a predictor of well-being in

secondary school students (Ciarrochi, Kashdan, Leeson, Heaven & Jordan, 2011).

In the current study, each workshop focused on one part of the DNA-V model (the 'Discover', the

'Noticer' and the 'Advisor') and included presented material, videos, student participation via a live

response website (Mentimeter), and experiential group exercises. Further information about the

workshop content is shown in Table 1. The workshops were delivered by the researchers who

developed them, both are clinical psychologists who have extensive training in ACT and regularly

work individually with young people within an ACT framework. Each workshop lasted an hour,

meaning students received three hours of the intervention in total.

CBT Group

Three CBT-based workshops were written using content predominantly taken from the 'Cool

Connections' CBT programme, a group-based intervention for 9-14 year olds which aims to

encourage resilience, self-esteem and reduce feelings of anxiety (Seiler, 2008), with additional

content taken from other CBT resources (Padesky & Mooney, 1990; Stallard, 2002). The draft

protocol for the workshops was sent to Laurie Seiler, author of 'Cool Connections', who provided

feedback about whether the content was consistent with the programme and CBT more generally.

His feedback was used to make some adjustments to the final workshop content. The workshops

included presented material, videos, student participation via Mentimeter, and written group and

individual exercises. Further information about the workshop content is shown in Table 1. The CBT

workshops were delivered by two counsellors working in a charity local to the school which supports

young people with their well-being. Both facilitators had existing knowledge of CBT and experience of delivering group interventions in schools. They also attended a three-hour training session specifically about the workshop content. Each workshop lasted an hour, meaning students received three hours of the intervention in total.

Control Group

The control group attended their PSHE lesson as usual, which was taught by their usual class teacher. They received three one-hour lessons of PSHE, equal to the duration of the ACT and CBT workshops.

Table 1. Workshop content

	ACT Group	CBT Group
Workshop 1	Workshop aims Listening to your Advisor Survivor Game *(Explaining the evolutionary context of Advisor)* Can we control our thoughts Following your Advisor 'It's just a thought' video *(Explaining cognitive defusion)*	Workshop aims Why is being a young person stressful? Naming emotions Skydiving video *(Imagining how you would think and feel)* Identifying your own thoughts, feelings, body sensations and behaviours ('Hot Cross Bun')
Workshop 2	Quiz (about Workshop 1 content) Can we control our feelings Struggle switch video *(Explaining futility of control agenda)* Time travelling mind *(Explaining mindfulness)* The Noticer and being mindful 5, 4, 3, 2, 1 sensory noticing Why is the Noticer useful Mindfulness practice	Different perspectives and optical illusions Helpful thinking and gloomy thinking *(Identifying alternative thoughts)* Thinking errors Helping hands *(Identifying sources of support)*
Workshop 3	Quiz (about Workshop 2 content) The Discoverer Taking a risk - trying mystery flavoured sweets Goals vs Values video *(Explaining values-based behaviour)* Identifying your own values Passengers on a bus video *(Explaining integration of ACT skills to direct value based action)* How to be a Discoverer	Recap of previous workshops Wise Worriers *(Generating solutions for worried thoughts)* Traffic light thinking *(Identifying helpful and unhelpful thoughts)* Putting your thoughts on trial *(Challenging thoughts by looking for evidence)* Using CBT skills to break the cycle

Results

Due to unforeseen circumstances (school closure due to adverse weather and staff sickness) the scheduling of the groups needed to be adjusted and instead of both groups being delivered in the same week and over the same time period, it was necessary to delay the start of the CBT group by three weeks. The groups were still delivered every four weeks, except for the final ACT group which was delayed by a week. The final scheduling of the workshops can be seen in Figure 1.

Figure 1. Final scheduling for ACT & CBT workshops

Week		
1	ACT 1	
2		
3		
4		CBT 1
5	ACT 2	
6		
7		
8		CBT 2
9		
10	ACT 3 (delayed by one week)	
11		
12		CBT 3
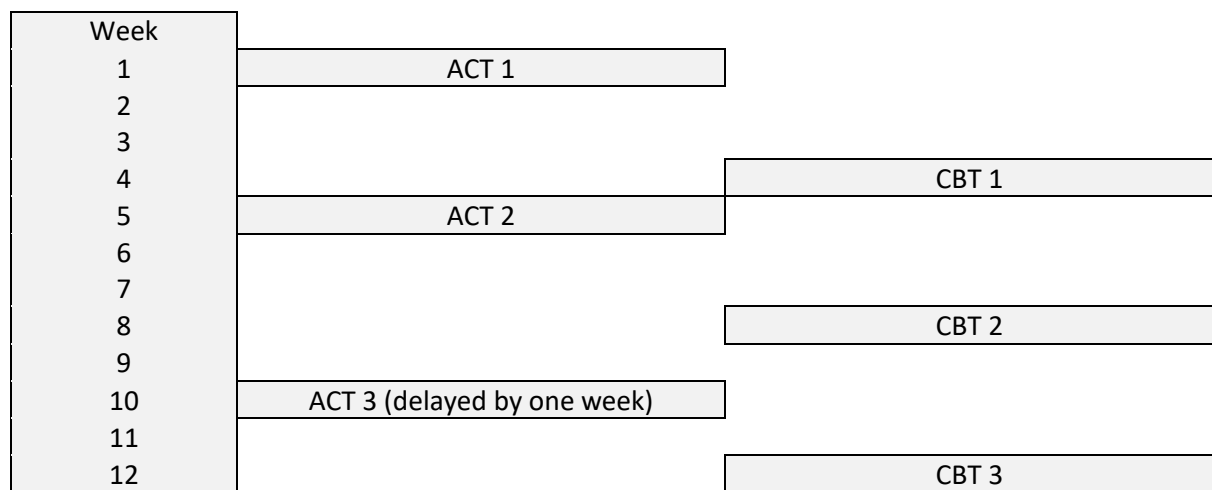
The electronic questionnaires were sent to all 90 students as no parents/carers chose to opt their child out of completing the research measures. The control group questionnaires were completed at the same time points as the ACT group. Table 2 shows: the number of students who accessed the questionnaires and gave their consent to complete them; the number of students who accessed the questionnaire but selected the option to indicate they did not want to take part; the number of students who completed all the questionnaires, and the gender information as reported by the students. Gender was omitted from the first questionnaires in error, meaning there is some gender information missing from Time 1, but this was minimised by matching unique identifying numbers with gender based on questionnaires at other time points for many students.

Table 2. Number of students completing outcome measures

	Number who consented to questionnaires	Number who opted out (did not consent)	Number who did not access questionnaires	Number who completed questionnaires	Number of Males (M) and Females (F)
Time 1*					
ACT	14 (45%)	0 (0%)	17 (54%)	10 (32%)	*4M*
CBT	24 (80%)	0 (0%)	6 (20%)	22 (73%)	*8M 11F*
Control	25 (86%)	0 (0%)	4 (14%)	22 (76%)	*7M 16F*
Time 2					
ACT	21 (67%)	2 (6%)	8 (25%)	18 (58%)	13M 6F
CBT	25 (83%)	4 (13%)	1 (3%)	23 (76%)	10M 13F
Control	23 (79%)	0 (0%)	6 (20%)	22 (76%)	7M 16F
Time 3					
ACT	16 (51%)	11 (35%)	4 (13%)	14 (45%)	10M 5F
CBT	16 (53%)	5 (16%)	9 (30%)	14 (46%)	5M 10F
Control	24 (82%)	3 (10%)	2 (7%)	18 (62%)	9M 13F
8 week follow Up					
ACT	16 (51%)	6 (19%)	9 (29%)	12 (38%)	12M 2F
CBT	15 (50%)	4 (13%)	11 (36%)	15 (50%)	7M 8F
Control	20 (69%)	0 (0%)	9 (31%)	16 (55%)	6M 13F

*Gender data incomplete at Time 1

Questionnaire data

Data about the number of students who completed the questionnaires (see Table 2) shows that there was never a time when every student in a class accessed the questionnaires. Overall, the mean percentage of students who accessed the questionnaires across all groups was 75%, and the mean percentage of students who consented to take part was 66%. In the control group, 81% of students accessed the questionnaires at least once and 79% of these gave consent. In the CBT group 76% of students accessed the questionnaires and 67% consented, and in the ACT group 69% of students accessed the questionnaires and 54% consented. It is notable that at time point one, 17 students (54%) from the ACT group did not access the questionnaires, although it is unclear as to why this was lower than the other groups. Over time the number of students who did not consent or did not access the questionnaires increased. Across all groups, numbers show that at time point two 6% of

students did not consent and 16% did not access the questionnaire. At time point three this had increased to 21% of students who did not consent and 18% who did not access the questionnaires, and at the eight-week follow-up 11% did not consent and 32% did not access the questionnaires.

If a student did not complete the questionnaires, any data they had provided was recorded as partial data. Consequently, some questionnaires from the same time point have more responses than others. Figure 2 shows the possible number of completed questionnaires for all groups (90 students in total) and all four time points combined, as well as the point in the sequence of questionnaires that students stopped completing them. The most common places for students to stop completing the questionnaires were at the first questionnaire (SWEMWBS), before completion of the CompACT and before completion of the RCADS-25. The CompACT and the RCADS-25 are the longest questionnaires with 23 and 25 items respectively, however it is not possible to know if students answered some of the questions before stopping, or stopped answering after seeing the questionnaire.

Figure 2. Number of completed questionnaires for all groups and time points
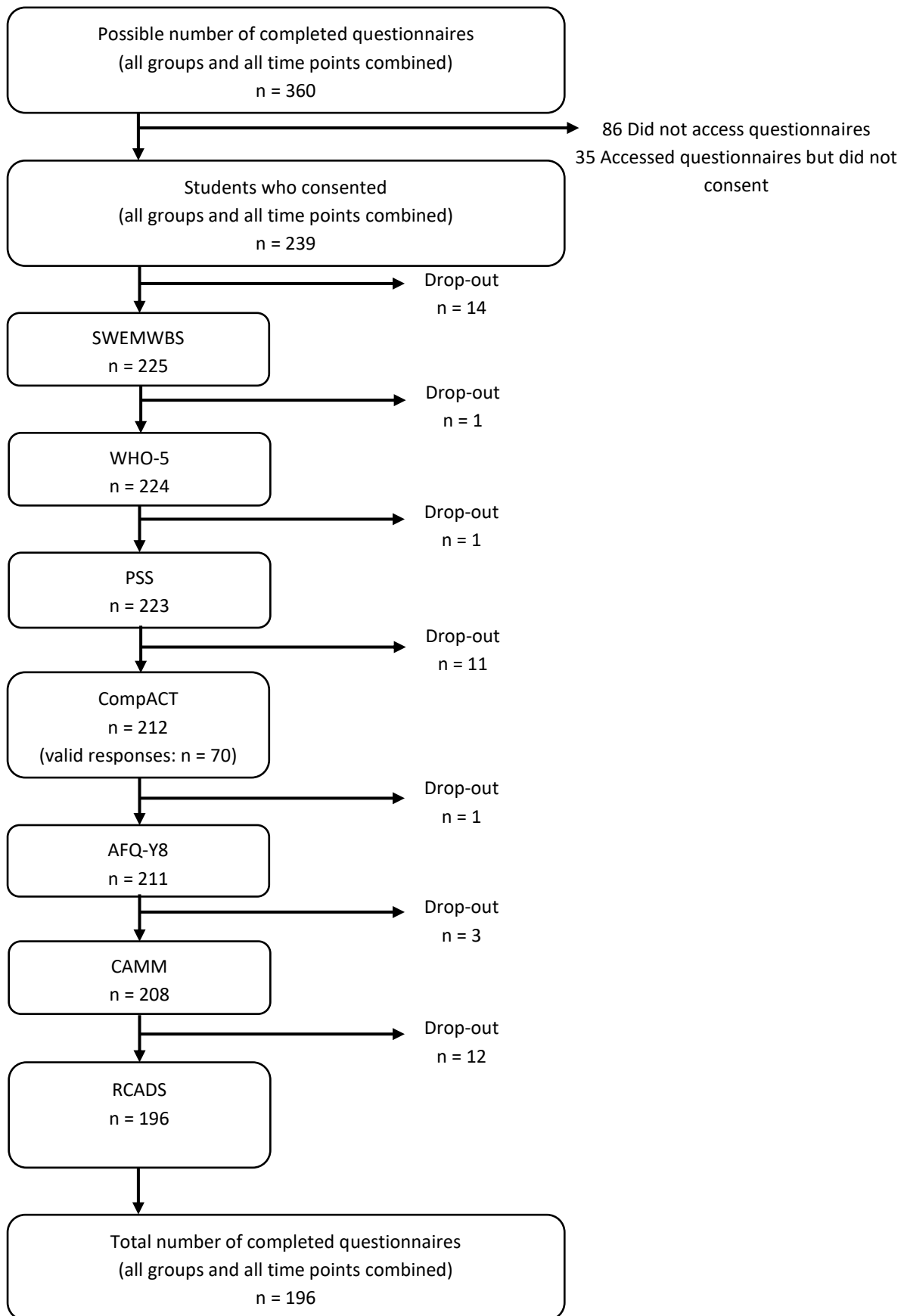
Table 3 shows the number of valid responses obtained for each questionnaire and the mean and standard deviations for each across the four time points. Scores obtained for the AFQ-Y8 indicate the control group had the highest levels of avoidance and fusion throughout the study. These had increased for both the CBT and control group at the eight week follow-up, but decreased for the ACT group. Scores obtained on the CAMM indicate little change over time for all groups, however there is an increase in the ACT group indicating higher mindfulness scores at the eight-week follow-up. The CompACT openness to experience scale indicates that openness to experience increased for the ACT group and the CBT group. The scores obtained on the CompACT behaviour awareness scale indicate a fluctuation across time points for the CBT and control groups, but an increase over time for students in the ACT group. The CompACT valued activity scale shows that at the end of the workshops (time point three) the ACT group reported the most engagement in meaningful activity, followed by the CBT group, and then the control group. However, at the eight week follow-up all three groups had similar scores. The overall CompACT scores show the control group had the highest levels of psychological flexibility at time point one. At time point three, the ACT group had the highest levels, followed by the CBT group and then the control group who had the lowest levels. By the eight week follow-up this pattern was still evident but the scores for each group were more similar.

Data for all subscales of the CompACT needs to be considered with caution. As all students were asked to indicate if they found any items confusing, the response setting on the online questionnaires allowed students to miss items and select multiple items for this measure. This led to 67% of CompACT responses which could not be accurately scored and were therefore excluded. Only including valid responses resulted in lower response rates for this questionnaire.

The PSS scores indicated highest stress scores for the control group at every time point. At time point three the scores are elevated for all three groups, but are lower at the eight week follow-up

with the ACT and CBT groups having lower scores than the control group.

Scores for the RCADS-25 anxiety scale indicate anxiety levels stayed at similar levels for both the CBT group and control group. For the ACT group there was some fluctuation but the score at the eight week follow-up had reduced in comparison to time point one. The RCADS-25 depression subscale indicates similar levels of depression for the control group across all time points, increased levels of depression for the CBT group at time points two and three, and a gradual decrease in levels of depression for the ACT group.

The SWEMWBS scores show a pattern of increased well-being for the ACT and CBT groups in comparison to the control group at all time points. The WHO-5 shows that the ACT and CBT groups reported higher quality of life at time point one. For all other time points there was a pattern of the ACT group reporting the highest quality of life, followed by the CBT group, then the control group.

Table 3. Descriptive statistics for each variable and each time point by group

	ACT		CBT		Control	
	M (SD)	n	M (SD)	n	M (SD)	n
AFQ-Y8						
T1	7.85 (6.05)	13	6.23 (4.50)	23	10.18 (6.77)	22
T2	7.83 (6.56)	18	8.30 (6.12)	23	10.55 (6.75)	22
T3	8.57 (6.44)	14	7.14 (5.29)	14	11.47 (8.24)	19
FU	5.50 (4.52)	12	8.33 (5.50)	15	11.44 (6.92)	16
CAMM						
T1	25.91 (7.67)	11	27.82 (8.75)	23	24.27 (8.83)	22
T2	27.33 (10.66)	18	26.00 (7.91)	23	24.41 (8.30)	22
T3	25.36 (10.46)	14	26.57 (9.98)	14	24.17 (9.01)	18
FU	31.08 (9.42)	12	26.67 (8.01)	15	24.25 (7.08)	16
CompACT OA						
T1	28.80 (7.76)	5	27.89 (8.70)	9	30.80 (9.92)	15
T2	28.63 (16.81)	8	34.00 (9.76)	6	30.13 (8.38)	15
T3	33.18 (11.36)	11	34.73 (13.26)	11	28.71 (12.80)	14
FU	37.20 (5.89)	5	34.40 (14.81)	10	31.62 (11.12)	13
CompACT BA						
T1	16.88 (7.97)	8	19.67 (5.66)	9	17.67 (5.79)	15
T2	16.73 (5.12)	11	15.54 (5.36)	13	14.83 (6.74)	18
T3	19.82 (8.34)	11	17.73 (7.66)	11	15.81 (7.62)	16
FU	20.90 (7.78)	10	17.75 (6.80)	8	16.69 (7.98)	13
CompACT VA						
T1	33.40 (7.30)	5	36.43 (7.21)	7	32.54 (8.97)	13
T2	34.67 (10.54)	6	31.00 (4.34)	8	30.44 (10.58)	16
T3	37.83 (7.37)	8	36.00 (7.37)	12	28.44 (9.23)	9
FU	34.00 (14.65)	7	34.50 (13.85)	10	33.14 (6.15)	7
CompACT Total						
T1	80.00 (1.00)	3	70.50 (3.54)	2	85.22 (19.05	9
T2	72.25 (28.62)	4	70.00 (---)	1	76.62 (17.13)	13
T3	102.00 (22.21)	5	87.10 (27.32)	10	74.00 (25.85)	8
FU	95.75 (17.91)	4	91.33 (24.92)	6	88.20 (17.46)	5
PSS						
T1	5.62 (2.96)	13	4.70 (2.98)	23	6.21 (2.87)	24
T2	5.37 (3.17)	19	5.87 (2.75)	23	6.86 (2.47)	22
T3	7.93 (2.49)	15	7.60 (1.59)	15	8.14 (2.29)	22
FU	5.14 (2.77)	14	5.13 (2.67)	15	6.83 (3.91)	18
RCADS-25 Anx						
T1	53.75 (20.47)	4	45.26 (11.18)	19	54.05 (15.20)	21
T2	45.28 (11.76)	18	47.83 (10.85)	23	53.64 (14.05)	22
T3	49.21 (15.72)	14	44.36 (12.32)	14	52.00 (15.35)	18
FU	45.92 (16.81)	12	46.40 (9.02)	15	52.75 (12.07)	16
RCADS-25 Dep						
T1	53.25 (20.37)	4	41.37 (9.79)	19	55.43 (15.21)	21
T2	46.50 (13.82)	18	47.00 (13.72)	23	52.59 (16.27)	22
T3	45.07 (16.28)	14	47.07 (14.86)	14	54.67 (16.92)	18
FU	43.17 (13.85)	12	42.13 (9.75)	15	52.44 (15.04)	16
RCADS-25 Total						
T1	53.25 (21.41)	4	42.74 (11.36)	19	55.00 (16.08)	21
T2	44.78 (13.30)	18	47.04 (13.22)	23	53.59 (14.98)	22

T3	46.71 (18.69)	14	44.71 (15.15)	14	53.72 (17.23)	18
FU	43.58 (16.32)	12	43.80 (10.07)	15	53.44 (15.03)	16
SWEMWBS						
T1	26.38 (5.52)	13	27.39 (4.13)	23	24.04 (5.03)	24
T2	25.58 (4.97)	19	25.65 (3.27)	23	22.30 (5.09)	23
T3	26.27 (5.08)	15	26.40 (3.79)	15	23.14 (5.62)	22
FU	26.93 (4.79)	14	25.53 (3.44)	15	24.53 (5.51)	19
WHO-5						
T1	17.46 (6.33)	13	17.57 (3.16)	23	14.88 (5.26)	24
T2	17.68 (4.99)	19	16.83 (3.94)	23	13.05 (6.03)	22
T3	19.20 (5.08)	15	16.67 (3.62)	15	14.27 (6.20)	23
FU	18.29 (5.76)	14	17.13 (3.96)	15	15.06 (5.35)	18

n = Number of valid responses, AFQ-Y8 = Avoidance and Fusion Questionnaire for Youth, CAMM = Child and Adolescent Mindfulness Measure, CompACT OA = Openess to Experience subscale, CompACT BA = Behavioural Awareness subscale, CompACT VA = Valued Action subscale, CompACT Total = Overall score, PSS = Perceived Stress Scale, RCADS-25 Anx/Dep/Total = Revised Children's Anxiety and Depression Scale-25 Anxiety subscale/Depression subscale/Total (t scores reported), SWEMWBS = Short Warwick-Edinburgh Mental Well-being Scale, WHO-5 = World Health Organization Well-being Index

CompACT data – Confusing items

Table 4 shows the number of students in each group who found items from the CompACT confusing. Although some students reported finding zero items confusing, the majority of students found at least one item confusing, and averaging the means for every group and time point indicates that on average a student found two items confusing. The range of the number of confusing items is large but was lowest for all three groups at the eight-week follow-up.

Table 4. CompACT confusing items

	No. of responses	No. reporting zero confusing items	Total no. of confusing items	Mean no. of confusing items per respondent	Range
Time point 1					
ACT	13	4	44	3.4	0-10
CBT	22	6	68	3.1	0-12
Control	23	8	36	1.6	0-5
Time point 2					
ACT	18	7	49	2.7	0-11
CBT	23	5	53	2.3	0-8
Control	22	13	47	2.1	0-22
Time point 3					
ACT	14	7	19	1.4	0-8
CBT	14	9	22	1.6	0-13
Control	20	9	31	1.6	0-8
8-week FU					
ACT	12	6	18	1.5	0-5
CBT	15	8	24	1.6	0-7
Control	16	7	24	1.5	0-6

Experience of workshop questionnaires

ACT

The experience of workshop questionnaire was completed by 15 students in the ACT group. The majority of students (87%) found the workshops helpful and easy to understand, with most students (60%) considering the content to be relevant to them. Some students (47%) considered the number of workshops to be appropriate, although some students (47%) said they would have liked more sessions. Most students (67%) considered the length of each session to be about right. Sixty percent found the number of questions to be 'about right'.

The questionnaires gave the students an opportunity to provide comments and written feedback. They identified several helpful elements to the workshops including that it was normalising to hear other students share their views, feeling relaxed, understanding other perspectives, learning more about thoughts, and that the workshops were generally enjoyable. The students also identified areas

for improvement including, taking more time to give information, using videos that were easier to understand and age-appropriate, involving different members of the class in activities, and finding a way around using mobile phones for activities (as this excluded some people).

CBT

The experience of workshop questionnaire was completed by 20 students in the CBT group. Some students (45%) found the information helpful, although others did not find it helpful (25%) and 30% of students were neutral about whether it was helpful or unhelpful. The majority of students (65%) found the information easy to understand, but there was less consensus about how relevant the information was. Forty percent of students were neutral about whether it was relevant, some students (20%) did not consider it relevant and other students (40%) thought it was relevant. The majority of students (55%) thought the number of workshops was about right, although some students (35%) would have preferred fewer workshops. Most students (75%) considered the length of each workshop to be appropriate and 45% considered the number of questions on the electronic questionnaires to be 'about right'.

The helpful elements of the workshops that were identified by the students in the CBT group included, specific skills that were taught (traffic light thinking, helping hands, the hot cross bun theory of CBT) and ideas about how to manage problems, thoughts and different situations. Two students reported finding nothing from the workshops helpful. Ideas for improvement that were suggested by the students included making the workshops more engaging and interactive, and having less talking and writing. Overall, there was mixed feedback from students in the CBT group. Some reported finding the workshops too boring and the content too easy, whilst some reported finding the workshops fun, interesting and commented that they felt calm after each workshop.

Control

The questionnaire for the control group was completed by 18 students. Responses showed that the

control group had not heard anything about the workshops from the other students. Fifty percent of

the students thought that the workshops could have been relevant for them and gave explanations

such as thinking it would be useful to learn about being resilient, being able to work on their

confidence, and learning how to manage stress. Many students commented that they did not mind

being part of the control group and recognised that this was needed for the purpose of the research

study, although some reported they would have liked to attend the workshops. Written comments

about their experience of completing the questionnaire indicates that many students understood

the questions and felt able to answer them, however some students reported the questions were

too personal, vague, repetitive, and sometimes difficult to understand.

Focus groups

When completing the first set of questionnaires, 34 students consented to participate in the focus

groups (out of 38 students in the ACT and CBT groups who consented to the research study at Time

1). Students were told the focus groups were optional and even if they had initially opted to

participate, they did not have to. The ACT focus group consisted of 15 students, the CBT focus group

consisted of 12 students. For the focus groups and interviews, content analysis was used to identify

meaning units from the transcripts, which were grouped into codes. The codes were grouped into

categories and the key findings have been summarised in Table 5.

ACT

Students in the ACT group highlighted that they enjoyed a mixture of activities including watching

videos, the survivor game, mindfulness exercises, the jellybean exercise, choosing values, and using

their phones to participate in the workshops. Some students found the videos confusing and

thought these could have been more engaging for young people. They identified concepts from the

workshop which they had found helpful such as the Discoverer, Noticer and Advisor, and learning it is okay not to be okay. Students reported the questionnaires were too long and repetitive.

CBT

Students in the CBT group described that the workshops would be better suited to students experiencing difficulties and did not always feel relevant to them. Some students reported finding them helpful and that they had led them to consider thoughts and feelings. The activities students were most favourable about included putting their thoughts on trial, traffic light thinking and optical illusions, however many students disliked the CBT theory. Students in the CBT group also reported the questionnaires were repetitive and that there were too many questions to answer.

Interviews with school staff

ACT

The teacher present in the ACT group gave positive feedback about the workshops and reported the concepts were understood by students and that the workshops had been well-received. The teacher commented that the workshops were perhaps spaced too far apart and it would be more beneficial to have the workshops on a weekly basis, as well as having repetition and refresher sessions to remind the students of the concepts they had learnt at stressful times of the school year, such as exam periods. A further comment was that it would be helpful for facilitators to use the same teaching cues as the school, for example to re-gain the students' attention.

CBT

The teacher present in the CBT group was also the member of school staff who had helped with the set up of the research project, and was able to comment on this process too. The teacher reported that the workshop set up had been straightforward, particularly as it had little impact on the school routine, the facilitators were flexible about dates and all materials were provided. The most

challenging part of setting up the workshops was finding time in the school timetable. The teacher also commented that the information sheet was too long and deterred students from progressing to the questionnaires, which had too many total items. The teacher queried whether the students found the CBT workshops relevant enough and suggested that it is difficult for facilitators to engage students in an active way when they are delivering material which was written by someone else. Suggestions for improvement included covering some concepts in more depth, using more student-relevant examples to help engage students, and having the workshops closer together.

Feedback from workshop facilitators

Workshop facilitators provided written feedback about each workshop and participated in an interview. The ACT facilitators were interviewed separately due to time constraints, the CBT facilitators were interviewed together.

ACT

The facilitators of the ACT workshop highlighted the challenges of teaching a large group of students in a classroom environment, especially with no prior knowledge of the students' abilities. They valued having a class teacher present for assistance with student behaviour. Retrospectively, they thought that it would have been useful to meet with the class teacher to agree the role they would take in the workshops and to discuss the school culture of discipline. The facilitators agreed it was important to be familiar with ACT as a model and to use a range of activities to engage students. They found preparation for the workshops was time-consuming and there were also time pressures which came from working within the school timetable. Having three workshops was reported to be the right amount, but it was thought these could be delivered over a shorter time period.

CBT

The facilitators of the CBT workshop found that student engagement across the three workshops was variable, and wondered if the workshops might be more suited to a targeted population, i.e. to students who need more support with well-being. They identified that it was challenging to deliver material that had been written by someone else and that they would have found it useful to have had more training time to become familiar with the content. The facilitators also considered that it would have been helpful to have had the workshops closer together and to clarify the role of the teacher in advance of the workshops. They described how assistance from the teacher in clarifying concepts to students within the workshops was potentially problematic in the context of a research trial, for example when reference was made to alternative concepts and prior learning.

Table 5. Key findings from content analysis of qualitative data

Source	What worked well	Challenges	Ideas for improvement
ACT focus group	Variety of experiential activities (watching videos, the survivor game, mindfulness exercises, the jellybean exercise, choosing values, using phones)	Videos confusing/not understood by young people Questionnaires too long	Sitting by friends during workshops to feel more comfortable Having materials to share with parents about the workshops
CBT focus group	Several activities (putting thoughts on trial, traffic light thinking, optical illusions)	Content not relevant to all students CBT theory not engaging Questionnaires too long	Workshops closer together More interactive exercises/discussions
ACT teacher	All concepts understood well Concepts liked by students	Workshop facilitators not using the same behaviour cues as staff Lots of content to cover	Weekly workshops with refresher sessions later in year Asking teacher about which students to pick for activities
CBT teacher	Several activities (being a judge, skydiving video, optical illusions, thinking errors, traffic light thinking) Three workshops the right amount	Content not made relevant enough to students Workshop facilitators delivering material they have not written Questionnaires and information sheet too long	Workshops closer together Covering concepts in more depth Using more student-relevant examples
ACT facilitators	Mixture of taught content and interactive exercises Having a class teacher present (for behaviour management) Three workshops the right amount	Teaching in a classroom and pitching content for everyone Judging what students have understood Time-consuming to prepare	Delivering workshops over a shorter time period
CBT facilitators	Visual activities A balance of taught	Variable student engagement	Clarifying the role of the teacher in advance

content and activities	Delivering material written by someone else	Delivering the workshops closer together
Three workshops the right amount	Presence of a teacher (influence on student engagement and challenging to follow workshop protocol)	More training time for facilitators
		Less theory included in workshop content
	Time-consuming to prepare	

Discussion

This study aimed to ascertain whether implementing a brief ACT intervention for secondary school students was feasible and acceptable for school staff, students and the programme facilitators. It is hoped the findings could inform a subsequent cluster RCT to assess the efficacy of an ACT intervention in schools. The results are considered in relation to key criteria feasibility studies seek to inform (Bowen et al., 2009; Orsmond & Cohn, 2015), as described below.

Feasibility Findings to Inform RCT Development

Acceptability

Acceptability is the extent to which the intervention is considered suitable by programme deliverers and recipients (Bowen et al., 2009). The ACT workshops were acceptable to staff and students, who provided positive feedback about the relevance of the workshops and described how the concepts were helpful for students.

Limited Efficacy

Limited efficacy refers to whether the intervention shows promise of being effective (Bowen et al., 2009). Although statistical analyses would not have been appropriate for use in this study, comparing the mean scores of the outcome measures completed by each group at the eight-week

follow-up suggests that ACT may have promise in terms of increasing well-being for students. This is consistent with other research which has found ACT in schools to be beneficial for student well-being (Buckhardt et al., 2016, Livheim et al., 2015). In the present study, at the eight-week follow up students in the ACT group had the most favourable scores, in terms of the highest levels of mindfulness, psychological flexibility, well-being and quality of life, and the lowest levels of avoidance behaviours and thought fusion. Both the CBT and the ACT group had more favourable scores than the control group at the eight-week follow-up, suggesting reduced stress, anxiety and depression for students who participated in a workshop. In a RCT, CBT would be an appropriate comparison intervention given this has been widely used as a preventative mental health intervention for adolescents (Stice & Shaw, 2004; Stice et al., 2009).

Demand

Demand refers to the likelihood a new programme is used (Bowen et al., 2009). The ACT workshops received largely positive feedback indicating that the concepts were helpful and relevant. Feedback for the CBT workshops was more mixed, possibly because CBT was perceived as unsuitable for a universal population, the content was too theoretical or because workshop delivery was more challenging as the facilitators had not written the workshops themselves and had had limited training on the session content.

Implementation & Practicality

Implementation and practicality refers to the extent a new intervention can be successfully delivered with existing resources (Bowen et al., 2009). Feedback from teachers indicated the workshops were practical because they fitted with the school timetable (e.g. the same length as a lesson and coinciding with routine PSHE lessons), and could be accommodated because they required minimum input from teachers (e.g. no requirement to prepare for the workshops or attend any training). A RCT should ensure this structure continues; this would involve cluster randomisation

as it would not be possible to randomise students individually.

All workshop facilitators highlighted the time-consuming nature of preparing and delivering the workshops. Although less preparation would be needed to deliver the workshops again, this feedback indicates the need for facilitators to have allocated time to prepare and deliver the workshops.

The ACT facilitators highlighted the importance of the workshops being delivered by clinicians who know the model well. Similarly, the teacher present for the CBT workshops and the CBT facilitators highlighted the challenges of delivering material which was written by someone else. Identifying appropriate facilitators is important, and it would be advisable for facilitators in both conditions to be matched in terms of their familiarity with the content, for example, either both writing and delivering the material, or both having the same amount of training on material written by someone else. The CBT facilitators reported a need for more training and in a RCT, using a competency measure could help assess knowledge and skills acquisition.

It would also be useful to evaluate fidelity to the workshop protocol to ensure consistency and gather information which could help determine if findings were affected by problems with the model, or problems with implementing the model (Mowbray, Holter, Teague & Bybee, 2003). One way to assess fidelity would be to ask expert raters to observe workshops. Other methods such as recording sessions may be problematic in a school setting due to issues of consent and confidentiality, and asking workshop facilitators to self-report adherence to a treatment protocol could be prone to bias.

Sampling, Recruitment and Randomisation

Although some students in the control group reported they were happy to be randomised to this group, other students said they would have liked to attend the workshops. A RCT should therefore consider the use of a waiting list control group, allowing all students to attend the workshops. Universal interventions which promote mental well-being are beneficial for screening for mental health difficulties, promoting positive mental health, and for delivery in a school setting, which is where children and young people spend most of their time (Fazel et al., 2014). The universal approach fits well with ACT which is not specific to mental health difficulties, but it will be necessary to carefully consider how the workshops are explained to the students to help prevent young people from perceiving they are struggling with mental well-being, and to ensure young people are aware they can still access mental health services and staff with specialist training if this is needed.

To assess for efficacy of ACT in a RCT, the sample will need to be appropriately powered for hypothesis testing, which data collected in the current study could be used to inform. For example, if the primary outcome measure was the RCADS-25, the RCADS-25 means and standard deviations obtained could be used to estimate sample size using calculations which are based on variability of an outcome measure (Noordzjj et al., 2010; Singh & Masuku, 2014). The sample size would also need to be adjusted to account for attrition. The number of participants who completed all the measures at the different time points varied from 47-70%, suggesting a sample in a RCT would need to be large enough to account for an attrition rate of 30-53%. Sample size calculations would also need to be based on implementing a cluster RCT, accounting for increased similarity between participants in clusters (Rutterford, Copas & Eldridge, 2015).

Refinements and Modifications

The study findings indicate that the following refinements and modifications are needed for a RCT.

Workshop scheduling. The current study found that delivering an ACT intervention over fewer sessions than other studies (Buckhardt et al., 2016; Livheim et al., 2015, Van der Gucht et al., 2016) was acceptable. This is consistent with research indicating that two teaching sessions about ACT was enough to teach participants about ACT principles and reduce depression scores (Levin, Pistorello, Seeley & Hayes, 2014). However staff, students, and facilitators concurred that the workshops should be delivered over a shorter time period for learning and retention.

Study information. Information sheets were reported to be too long and a future RCT should consider alternative ways to provide study information in an accessible way for young people. Guidance that information sheets for young people should use plain English, include essential information only, and be provided in sections with headings (Shaw, Brady & Davey, 2011) was followed. However additional ways to make this information manageable such as the use of images, or having extra information (e.g. definitions of words) appear when participants hover over a word or sentence may help to condense information further.

Outcome measures. The number of questionnaires used was also reported to be too long, and over time the number of students who chose to opt-out of completing the questionnaires increased. Students were most likely to stop completing the questionnaires during the CompACT and the RCADS-25, which were the questionnaires with the most items. Students may have given up with the CompACT due to length, confusion, or because it required an extra demand in saying which items were confusing. The CompACT did not appear to be an appropriate measure for students due to the frequency of items being reported as hard to understand.

The study included several measures, some which assess similar constructs. For a RCT it would be advisable to reduce the number of outcome measures used, but to ensure both process (i.e. psychological flexibility) and well-being related outcomes (i.e. mental health symptoms and stress

are measured). Based on the response rates of the students and whether change over time was apparent, it is suggested that the AFQ-Y8 is used to measure psychological flexibility, and the PSS is used to measure stress. The RCADS-25 may be an appropriate measure of mental health symptoms, particularly as it was useful for safeguarding as it allows for clinically elevated scores to be identified.

It is recommended that in a RCT, the CompACT measure is not used, due to the high levels of missing data. The AFQ-Y8 could be used to measure psychological flexibility, the PSS to measure stress, and the RCADS-25 to measure mental health symptoms. Longer questionnaires, such as the RCADS-25, may be best answered before other questionnaires to help avoid student drop-out due to fatigue. Co-production could also be used to ensure young people are consulted and appropriate measures selected.

Data collection. Distributing the questionnaires electronically worked well and should be replicated in a RCT. The control group consistently had a higher response rate than the ACT and CBT groups although it is unclear why this was. It is possible that not being exposed to workshop facilitators meant they received a slightly different explanation of the questionnaires or research study (which were discussed during the workshops). In a RCT, students would need to be given the same instructions by staff about the questionnaires.

Multi-agency working. In developing a RCT it would be necessary for researchers, facilitators and schools to plan how facilitators and teachers would work together during the workshops. Developing clear guidelines for teacher involvement would help minimise the influence of having teachers present, and ensure facilitators follow school guidance regarding student behaviour. On a practical level having several members of school staff involved in the research project would help avoid disruption that can be caused by staff absence.

Limitations

The current study has several limitations, some of which relate to the workshops. Unforeseen circumstances meant delivery of the first CBT workshop was delayed and the final ACT workshop needed to be postponed, meaning the findings could be influenced by students being exposed to different curriculum learning at school. The CBT workshops also focused on cognitive elements more than behavioural elements, which may have influenced how young people experienced the workshops.

Other limitations relate to data collection and analysis. Information about gender is missing from time one as this was initially omitted from the questionnaires in error. Pressures on the teaching staff meant that limited time was available to schedule the focus groups. Consequently, focus groups were undertaken during lunch breaks with only one focus group feasible for each intervention group. Due to the high consent rate, this resulted in a large number of students in each which may have impacted the quality of the data gathered. Reliability checks were undertaken for samples of all of the interview and focus group transcripts to ensure that data coding and analysis was accurate. However, reliability checks were not undertaken for the full transcripts due to time constraints.

Consideration should also be given to other possible confounding variables that may have influenced the conclusions drawn. Many of the decisions regarding the design of the research project were pragmatically driven. For example, the time of the school year in which the workshops were delivered and the number of workshops delivered, were both decided by the school timetable. Year 8 students were also selected as they did not have exams to prepare for. These factors may all have influenced how acceptable and feasible staff and students found the research to be, and may also have implications for how easily the research can be replicated in the future. A final limitation is that this study only considers the feasibility of a cluster RCT rather than a RCT which randomises individuals, and all conclusions should be considered with this in mind.

Conclusion

The current study has shown that a non-targeted three session ACT intervention can feasibly be delivered in a school and is acceptable to school staff and students. Recommendations for future research have been discussed including the need for procedures which can minimise participant drop out, a sample which is appropriately powered for statistical analysis, and equity across different groups in terms of training for facilitators. Developing a larger cluster RCT would help establish the efficacy of ACT in this context, which would further inform how ACT might be used to support student well-being in a school setting.

References

Arain, M., Campbell, M. J., Cooper, C. L., & Lancaster, G. A. (2010). What is a pilot or feasibility study? A review of current practice and editorial policy. *BMC Medical Research Methodology*, *10*, 67. https://doi.org/10.1186/1471-2288-10-67

Barrett, P. M., & Pahl, K. M. (2006). School-based intervention: Examining a universal approach to anxiety management. *Journal of Psychologists and Counsellors in Schools*, *16*(1), 55-75. https://doi.org/10.1375/ajgc.16.1.55

Bartram, D. J., Sinclair, J. M., & Baldwin, D. S. (2013). Further validation of the Warwick-Edinburgh mental well-being scale (WEMWBS) in the UK veterinary profession: Rasch analysis. *Quality of Life Research*, *22*(2), 379-391. https://doi.org/10.1007/s11136-012-0144-4

Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., ... & Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, *36*(5), 452-457. https://doi.org/10.1016/j.amepre.2009.02.002

Burckhardt, R., Manicavasagar, V., Batterham, P. J., & Hadzi-Pavlovic, D. (2016). A randomized controlled trial of strong minds: A school-based mental health program combining acceptance and commitment therapy and positive psychology. *Journal of School Psychology*, *57*, 41-52. https://doi.org/10.1016/j.jsp.2016.05.008

Burckhardt, R., Manicavasagar, V., Batterham, P. J., Hadzi-Pavlovic, D., & Shand, F. (2017). Acceptance and commitment therapy universal prevention program for adolescents: A feasibility study. *Child and Adolescent Psychiatry and Mental Health*, *11*(1), 27-37. https://doi.org/10.1186/s13034-017-0164-5

Burns, P. B., Rohrich, R. J., & Chung, K. C. (2011). The levels of evidence and their role in evidence-based medicine. *Plastic and Reconstructive Surgery*, *128*(1), 305-310. https://doi.org/10.1097/prs.0b013e318219c171

Calear, A. L., & Christensen, H. (2010). Systematic review of school-based prevention and early

intervention programs for depression. *Journal of Adolescence*, *33*(3), 429-438.

https://doi.org/10.1016/j.adolescence.2009.07.004

Chorpita, B. F., Moffitt, C. E., & Gray, J. (2005). Psychometric properties of the Revised Child Anxiety

and Depression Scale in a clinical sample. *Behaviour Research and Therapy*, *43*(3), 309-322.

https://doi.org/10.1016/j.brat.2004.02.004

Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms

of DSM-IV anxiety and depression in children: A revised child anxiety and depression

scale. *Behaviour Research and Therapy*, *38*(8), 835-855. https://doi.org/10.1016/S0005-

7967(99)00130-8

Ciarrochi, J., Kashdan, T. B., Leeson, P., Heaven, P., & Jordan, C. (2011). On being aware and

accepting: A one-year longitudinal study into adolescent well-being. *Journal of*

Adolescence, *34*(4), 695-703. https://doi.org/10.1016/j.adolescence.2010.09.003

Clarke, A., Friede, T., Putz, R., Ashdown, J., Martin, S., Blake, A., ... & Stewart-Brown, S. (2011).

Warwick-Edinburgh mental well-being scale (WEMWBS): Validated for teenage school

students in England and Scotland. A mixed methods assessment. *BMC Public Health*, *11*(1),

487. https://doi.org/10.1186/1471-2458-11-487

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of*

Health and Social Behavior, 24*(4),* 385-396. https://doi.org/10.2307/2136404

Comer, J. S., Blanco, C., Hasin, D. S., Liu, S. M., Grant, B. F., Turner, J. B., & Olfson, M. (2011). Health-

related quality of life across the anxiety disorders. *The Journal of Clinical Psychiatry*, *72*(1),

43-50. https://doi.org/10.4088/jcp.09m05094blu

Copeland, W. E., Angold, A., Shanahan, L., & Costello, E. J. (2014). Longitudinal patterns of anxiety

from childhood to adulthood: The Great Smoky Mountains Study. *Journal of the American*

Academy of Child & Adolescent Psychiatry, *53*(1), 21-33.

https://doi.org/10.1016/j.jaac.2013.09.017

Costello, E. J., Egger, H., & Angold, A. (2005). 10-year research update review: The epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. *Journal of the American Academy of Child & Adolescent Psychiatry*, *44*(10), 972-986.

https://doi.org/10.1097/01.chi.0000172552.41596.6f

Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, *60*(8), 837-844. https://doi.org/10.1001/archpsyc.60.8.837

Crenna-Jennings, W., & Hutchinson, J. (2018). *Access to children and young people's mental health services – 2018.* London, UK: Education Policy Institute.

Cuijpers, P., van Straten, A., Smit, F., Mihalopoulos, C., & Beekman, A. (2008). Preventing the onset of depressive disorders: A meta-analytic review of psychological interventions. *American Journal of Psychiatry*, *165*(10), 1272-1280. https://doi.org/10.1176/appi.ajp.2008.07091422

Donovan, C. L., & Spence, S. H. (2000). Prevention of childhood anxiety disorders. *Clinical Psychology Review*, *20*(4), 509-531. https://doi.org/10.1016/S0272-7358(99)00040-9

DuBay, W. H. (2004). *The principles of readability.* Retrieved from:

http://files.eric.ed.gov/fulltext/ED490073.pdf

Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, *82*(1), 405-432. https://doi.org/10.1111/j.1467-8624.2010.01564.x

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of Emergency Medicine*, *7*(3), 93-99. https://doi.org/10.1016/j.afjem.2017.08.001

Estévez, E., Murgui, S., & Musitu, G. (2009). Psychological adjustment in bullies and victims of school

violence. *European Journal of Psychology of Education*, *24*(4), 473-483.

https://doi.org/10.1007/BF03178762

Fazel, M., Hoagwood, K., Stephan, S., & Ford, T. (2014). Mental health interventions in schools in

high-income countries. *The Lancet Psychiatry*, *1*(5), 377-387. https://doi.org/10.1016/S2215-

0366(14)70312-8

Flesch, R. (1973). *The Art of Readable Writing.* New York, NY: Harper & Row.

Francis, A. W., Dawson, S. L., & Golijani-Moghaddam, N. (2016). The development and validation of

the Comprehensive assessment of acceptance and commitment therapy processes

(CompACT). *Journal of Contextual Behavioral Science.* 5*(3),* 134-135.

https://doi.org/10.1016/j.jcbs.2016.05.003

Francis, A. W., Dawson, S. L., & Moghaddam, N. (2015, July). *CompACT: Developing a complete brief*

assessment of ACT processes. Proceedings of the Association for Contextual Behavioral

Science World Conference, Berlin, Germany.

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts,

procedures and measures to achieve trustworthiness. *Nurse Education Today*, *24*(2), 105-

112. https://doi.org/10.1016/j.nedt.2003.10.001

Greco, L. A., Baer, R. A., & Smith, G. T. (2011). Assessing mindfulness in children and adolescents:

Development and validation of the child and adolescent mindfulness measure

(CAMM). *Psychological Assessment*, *23*(3), 606-614. http://dx.doi.org/10.1037/a0022819

Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and

adolescence: Development and evaluation of the avoidance and fusion questionnaire for

youth. *Psychological Assessment*, *20*(2), 93-102. http://dx.doi.org/10.1037/1040-

3590.20.2.93

Green, H., McGinnity, A., Meltzer, H., Ford, T. and Goodman, R. (2005). *Mental Health of Children and Young People in Great Britain, 2004*, Basingstoke, UK: Office for National Statistics.

Hayes, L. L. & Ciarrochi, J. V. (2015). *The thriving adolescent: Using acceptance and commitment therapy and positive psychology to help teens manage emotions, achieve goals and build connections.* Oakland, CA: New Harbinger Publications.

Hayes, L. L. & Ciarrochi, J. V. (2016). Mindfulness based social emotional learning: A new approach to promoting positive development in young people. *Scan, 35(1)*, 37-46.

Hayes, S. C., Villatte, M., Levin, M., & Hildebrandt, M. (2011). Open, aware, and active: Contextual approaches as an emerging trend in the behavioral and cognitive therapies. *Annual Review of Clinical Psychology*, *7*(1), 141-168. https://doi.org/10.1146/annurev-clinpsy-032210-104449

Hayes, S. C., Levin, M. E., Plumb-Vilardaga, J., Villatte, J. L., & Pistorello, J. (2013). Acceptance and commitment therapy and contextual behavioral science: Examining the progress of a distinctive model of behavioral and cognitive therapy. *Behavior Therapy*, *44*(2), 180-198. https://doi.org/10.1016/j.beth.2009.08.002

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1-25. https://doi.org/10.1016/j.brat.2005.06.006

Headstart. (2017). *Wellbeing framework measurement for secondary schools*. Retrieved from: https://www.corc.uk.net/media/1517/blf17_20-second-school-measuresbl-17-03-17b.pdf

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277-1288. https://doi.org/10.1177/1049732305276687

Kallapiran, K., Koo, S., Kirubakaran, R., & Hancock, K. (2015). Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: A meta-analysis. *Child and Adolescent Mental Health*, *20*(4), 182-194. https://doi.org/10.1111/camh.12113

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical Psychology Review*, *30*(7), 865-878. https://doi.org/10.1016/j.cpr.2010.03.001

Kessler, R. C., Amminger, G. P., Aguilar-Gaxiola, S., Alonso, J., Lee, S., & Ustun, T. B. (2007). Age of onset of mental disorders: a review of recent literature. *Current Opinion in Psychiatry*, *20*(4), 359-364. https://doi.org/10.1097/yco.0b013e32816ebc8c

Knapp, M., Ardino, V., Brimblecombe, N., Evans-Lacko, S., Iemmi, V., King, D., Snell, T. (2016). *Youth Mental Health: New Economic Evidence.* London, UK: London School of Economics Personal Social Services Research Unit.

Levin, M. E., Pistorello, J., Seeley, J. R., & Hayes, S. C. (2014). Feasibility of a prototype web-based acceptance and commitment therapy prevention program for college students. *Journal of American College Health*, *62*(1), 20-30. https://doi.org/10.1080/07448481.2013.843533

Livheim, F., Hayes, L., Ghaderi, A., Magnusdottir, T., Högfeldt, A., Rowse, J., Turner, S., Hayes, S.C. & Tengström, A. (2015). The effectiveness of acceptance and commitment therapy for adolescent mental health: Swedish and Australian pilot outcomes. *Journal of Child and Family Studies*, *24*(4), 1016-1030. https://doi.org/10.1007/s10826-014-9912-9

Martinelli, V., Brondino, N., Rossi, S., Panigati, R., Magnani, R., Cappucciati, M., ... & Politi, P. (2011). Bullying behaviours among students in Pavia, Italy: Prevalence and association with stress and cannabis use. *Epidemiology and Psychiatric Sciences*, *20*(4), 339-343. https://doi.org/10.1017/S2045796011000461

McKay, M. T., & Andretta, J. R. (2017). Evidence for the psychometric validity, internal consistency

and measurement invariance of Warwick Edinburgh mental well-being scale scores in

Scottish and Irish adolescents. *Psychiatry Research*, *255*, 382-386.

https://doi.org/10.1016/j.psychres.2017.06.071

Merry, S. N., Hetrick, S. E., Cox, G. R., Brudevold-Iversen, T., Bir, J. J., & McDowell, H. (2012).

Cochrane Review: Psychological and educational interventions for preventing depression in

children and adolescents. *Evidence-Based Child Health: A Cochrane Review Journal*, *7*(5),

1409-1685. https://doi.org/10.1002/ebch.1867

Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., ... & Swendsen, J.

(2010). Lifetime prevalence of mental disorders in US adolescents: Results from the national

comorbidity survey replication–adolescent supplement (NCS-A). *Journal of the American*

Academy of Child & Adolescent Psychiatry, *49*(10), 980-989.

https://doi.org/10.1016/j.jaac.2010.05.017

Mowbray, C. T., Holter, M. C., Teague, G. B., & Bybee, D. (2003). Fidelity criteria: Development,

measurement, and validation. *American Journal of Evaluation*, *24*(3), 315-340.

https://doi.org/10.1177/109821400302400303

Muñoz, R. F., Cuijpers, P., Smit, F., Barrera, A. Z., & Leykin, Y. (2010). Prevention of major

depression. *Annual Review of Clinical Psychology*, *6*, 181-212.

https://doi.org/10.1146/annurev-clinpsy-033109-132040

Muris, P., Meesters, C., & Schouten, E. (2002). A brief questionnaire of DSM-IV-defined anxiety and

depression symptoms among children. *Clinical Psychology & Psychotherapy: An International*

Journal of Theory & Practice, *9*(6), 430-442. https://doi.org/10.1002/cpp.347

Murrell, A. R., & Scherbarth, A. J. (2011). State of the research & literature address: ACT with

children, adolescents and parents. *International Journal of Behavioral Consultation and*

Therapy, *7*(1), 15-22. http://dx.doi.org/10.1037/h0101005

Murrell, A. R., Steinberg, D. S., Connally, M. L., Hulsey, T., & Hogan, E. (2015). Acting out to ACTing

On: A preliminary investigation in youth with ADHD and co-morbid disorders. *Journal of*

Child and Family Studies, *24*(7), 2174-2181. https://doi.org/10.1007/s10826-014-0020-7

Neil, A. L., & Christensen, H. (2007). Australian school-based prevention and early intervention

programs for anxiety and depression: A systematic review. *Medical Journal of*

Australia, *186*(6), 305-308. https://doi.org/10.5694/j.1326-5377.2007.tb00906.x

Neil, A. L., & Christensen, H. (2009). Efficacy and effectiveness of school-based prevention and early

intervention programs for anxiety. *Clinical Psychology Review*, *29*(3), 208-215.

https://doi.org/10.1016/j.cpr.2009.01.002

Nehmy, T. J. (2010). School-based prevention of depression and anxiety in Australia: Current state

and future directions. *Clinical Psychologist*, *14*(3), 74-83.

https://doi.org/10.1080/13284207.2010.524884

Noordzij, M., Tripepi, G., Dekker, F. W., Zoccali, C., Tanck, M. W., & Jager, K. J. (2010). Sample size

calculations: Basic principles and common pitfalls. *Nephrology Dialysis*

Transplantation, *25*(5), 1388-1393. https://doi.org/10.1093/ndt/gfp732

Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research

in special education: Scientific methods and evidence-based practices. *Exceptional*

children, *71*(2), 137-148. https://doi.org/10.1177/001440290507100201

Orsmond, G. I., & Cohn, E. S. (2015). The distinctive features of a feasibility study: Objectives and

guiding questions. *OTJR: Occupation, Participation and Health*, *35*(3), 169-177.

https://doi.org/10.1177/1539449215578649

Padesky, C. A., & Mooney, K. A. (1990). Clinical Tip: Presenting the cognitive model to clients. *International Cognitive Therapy Newsletter*, 6, 13-14.

Roemer, L., Williston, S. K., & Rollins, L. G. (2015). Mindfulness and emotion regulation. *Current Opinion in Psychology*, *3*, 52-57. https://doi.org/10.1016/j.copsyc.2015.02.006

Rowsell, H. C., Ciarrochi, J., Deane, F. P., & Heaven, P. C. (2016). Emotion identification skill and social support during adolescence: A three-year longitudinal study. *Journal of Research on Adolescence*, *26*(1), 115-125. https://doi.org/10.1111/jora.12175

Rutterford, C., Copas, A., & Eldridge, S. (2015). Methods for sample size determination in cluster randomized trials. *International Journal of Epidemiology*, *44*(3), 1051-1067. https://doi.org/10.1093/ije/dyv113

Seiler, L. (2008). *Cool connections with cognitive behavioural therapy: Encouraging self-esteem, resilience and well-being in children and young people using CBT approaches.* London, UK and Philadelphia, PA: Jessica Kingsley Publishers.

Shaw, C., Brady, L. M., & Davey, C. (2011). *Guidelines for research with children and young people*. London, UK: National Children's Bureau Research Centre.

Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management*, *2*(11), 1-22.

Stallard, P. (2002). *Think good – feel good: A cognitive behaviour therapy workbook for children and young people.* Chichester, UK: John Wiley & Sons.

Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh mental well-being scale (WEMWBS): A Rasch analysis using data from the Scottish health education population survey. *Health and Quality of Life Outcomes*, *7*(1), 15. https://doi.org/10.1186/1477-7525-7-15

Stice, E., & Shaw, H. (2004). Eating disorder prevention programs: A meta-analytic
review. *Psychological Bulletin*, *130*(2), 206-227. http://dx.doi.org/10.1037/0033-
2909.130.2.206

Stice, E., Shaw, H., Bohon, C., Marti, C. N., & Rohde, P. (2009). A meta-analytic review of depression
prevention programs for children and adolescents: Factors that predict magnitude of
intervention effects. *Journal of Consulting and Clinical Psychology*, *77*(3), 486-503.
https://doi.org/10.1037/a0015168

Stockings, E. A., Degenhardt, L., Dobbins, T., Lee, Y. Y., Erskine, H. E., Whiteford, H. A., & Patton, G.
(2016). Preventing depression and anxiety in young people: A review of the joint efficacy of
universal, selective and indicated prevention. *Psychological Medicine*, *46*(1), 11-26.
https://doi.org/10.1017/S0033291715001725

Swain, J., Hancock, K., Dixon, A., & Bowman, J. (2015). Acceptance and Commitment Therapy for
children: A systematic review of intervention studies. *Journal of Contextual Behavioral
Science*, *4*(2), 73-85. https://doi.org/10.1016/j.jcbs.2015.02.001

Theodore-Oklota, C., Orsillo, S. M., Lee, J. K., & Vernig, P. M. (2014). A pilot of an acceptance-based
risk reduction program for relational aggression for adolescents. *Journal of Contextual
Behavioral Science*, *3*(2), 109-116. https://doi.org/10.1016/j.jcbs.2014.03.001

Tickle-Degnen, L. (2013). Nuts and bolts of conducting feasibility studies. *American Journal of
Occupational Therapy*, *67*(2), 171-176. https://doi.org/10.5014/ajot.2013.006270

Topp C.W., Østergaard S.D., Søndergaard S., & Bech P. (2015). The WHO-5 well-being index: A
systematic review of the literature. *Psychotherapy and Psychosomatics*, 84, 167-176.
https://doi.org/10.1159/000376585

Tynes, B. M., Giang, M. T., Williams, D. R., & Thompson, G. N. (2008). Online racial discrimination and

psychological adjustment among adolescents. *Journal of Adolescent Health*, *43*(6), 565-569.

https://doi.org/10.1016/j.jadohealth.2008.08.021

WHO. (1998). *Wellbeing measures in primary health care/The depcare project*. Copenhagen,

Denmark: WHO Regional Office for Europe.

Van der Gucht, K., Griffith, J. W., Hellemans, R., Bockstaele, M., Pascal-Claes, F., & Raes, F. (2017).

Acceptance and commitment therapy (ACT) for adolescents: Outcomes of a large-sample,

school-based, cluster-randomized controlled trial. *Mindfulness*, *8*(2), 408-416.

https://doi.org/10.1007/s12671-016-0612-y

Van Ryzin, M. J., & Roseth, C. J. (2018). Cooperative learning in middle school: A means to improve

peer relations and reduce victimization, bullying, and related outcomes. *Journal of

Educational Psychology*. *110*(8), 1192-1201. http://dx.doi.org/10.1037/edu0000265

Werner-Seidler, A., Perry, Y., Calear, A. L., Newby, J. M., & Christensen, H. (2017). School-based

depression and anxiety prevention programs for young people: A systematic review and

meta-analysis. *Clinical Psychology Review*, *51*, 30-47.

https://doi.org/10.1016/j.cpr.2016.10.005

Young, J. (2005). When should you use statistics? *Swiss Medical Weekly, 135*, 337-338.

Paper 3: Critical Review

Critical Review

Critical Review

Introduction

The current research has focused on Acceptance and Commitment Therapy (ACT) with children and

young people, with a particular focus on youth well-being and mental health, and whether an ACT

intervention can be used in school settings. This review aims to critique the research process,

summarise how the research fits within a wider context, outline a plan for dissemination, and

consider personal and professional learning.

Critique of Empirical Research

Designing the Research Study

The research was initially instigated by shared clinical interests of my supervisors and I, specifically

ACT and youth mental health. Mental health services are unable to support all children requiring

help and there can be limited support available for young people who do not meet service referral

criteria (Crenna-Jennings & Hutchinson, 2018). This gap in provision has been evident when I have

been working in NHS services for young people, with some services needing to temporarily close to

new referrals to meet current demand. In recent years, policy in the United Kingdom (UK) has

included recommendations for increased well-being support in schools (Department of Health &

Department of Education, 2017; National Assembly for Wales, 2018), and for research to assess

what interventions for well-being can be offered within schools (Department of Education, 2018;

McPin Foundation, 2018). The rationale for the empirical research stemmed from this joint need for

clinical work and for research: it would be useful to know more about what research can feasibly be

undertaken in schools.

I was increasingly using ACT in my clinical work and was interested in learning more about its

applications. Although other psychological models may have also been appropriate to consider, both supervisors had ACT expertise and were keen to investigate ACT as a preventative intervention. As outlined in the empirical paper, ACT is considered an appropriate approach for supporting universal populations as it aims to increase psychological flexibility and well-being, rather than targeting specific mental health difficulties (Hayes, Levin, Plumb-Vilardaga, Villatte & Pistorello, 2013; Hayes, Villatte, Levin and Hildebrandt, 2011).

Many of the decisions relating to the research design were pragmatically driven. One supervisor had an existing relationship with the school used as a research site and with the local charity the Cognitive Behavioural Therapy (CBT) facilitators worked for. This meant that other research sites and facilitators were not considered in depth, as within the research time frame it was practical for me to be introduced to the school and facilitators, and begin developing the project. The school helped to identify students for the project by suggesting we work with Year 8 students who did not have exams in that school year. Although making decisions based on feasibility was useful for setting up the project, it may have meant both organisations (the school and the charity) were more willing to be involved, which could have implications for how easily the research can be replicated, and how applicable the findings are to other year groups, schools and organisations.

I initially wondered whether a small randomised controlled trial (RCT) was the best and most methodologically advanced starting point for exploring the efficacy of the ACT intervention. However, following consultation with the Centre for Trials Research, it became clearer to me how important initial feasibility trials are as a precursor for clinical trials. My reading in this area highlighted that feasibility studies are needed to assess 'can it work?' before the question of 'does it work?' can be considered (Bowen et al., 2009; Orsmond & Cohn, 2015). A progressive series of studies is needed to undertake a RCT, and this should start with a feasibility study (Dobkin, 2009; Gitlin, 2013). Feasibility studies are essential for ensuring that study design, intervention, trial

procedures, methods and resources are feasible, acceptable and appropriate (Bowen et al., 2009; Feeley et al., 2009; Orsmond & Cohn, 2015). Figure 1 shows the features of a feasibility study to consider before a pilot study is undertaken. It was agreed that completing a feasibility study was a critical first step to exploring the use of universal well-being interventions in schools.

Figure 1. Distinctive features of a feasibility study (Orsmond & Cohn, 2015)
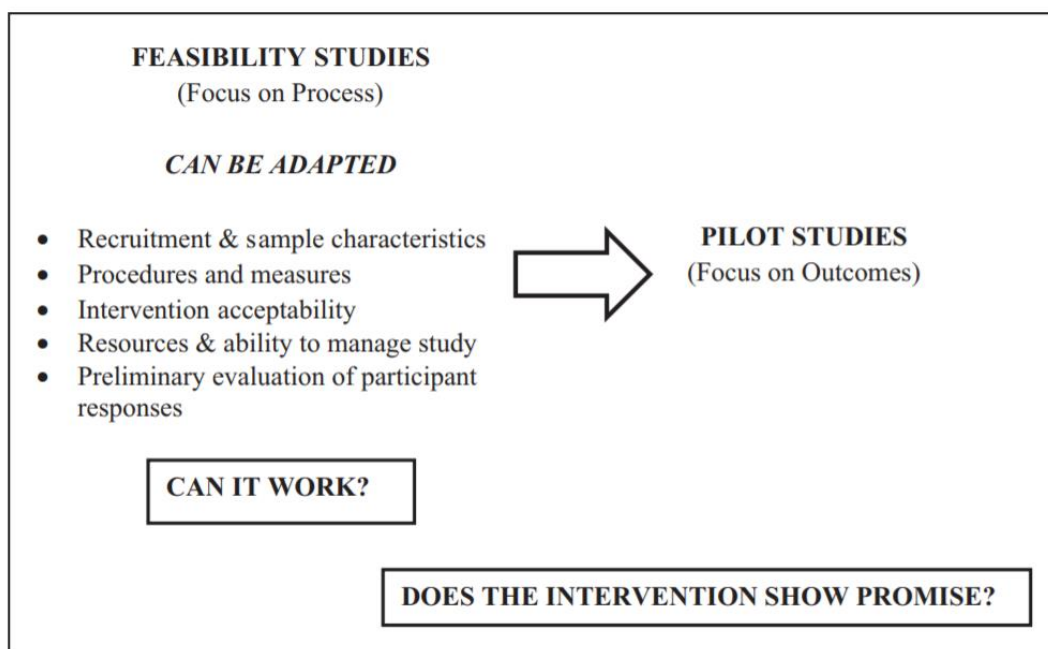
Developing the Workshops

The ACT workshops were written and facilitated by the project supervisors, allowing them to be written specifically for the time frames available (three, one-hour workshops). Their experience of using ACT clinically with young people was advantageous as it increased the likelihood that the workshops were consistent with ACT theory and principles and delivered by facilitators who were familiar with explaining the concepts to young people. I had initially planned to identify an existing CBT programme which could be delivered as the parallel intervention. I found numerous existing programmes but they were unsuitable for various reasons such as focusing on a specific mental health difficulty (Kendall & Hedtke, 2006), requiring parent involvement (Rapee et al., 2006), using a

mixture of psychological models (Puskar, Lamb & Tusaie-Mumford, 1997), being delivered over too many sessions (Gillham, Brunswasser & Freres, 2008), or because the programme was not age-appropriate (Rooney, Rudge, Snowball, Roberts & Pike, 2004).

The Cool Connections programme (Seiler, 2008) was identified as a programme based on CBT for students aged 9-14 years which aims to increase resilience and well-being, leading to reductions in depression and anxiety when delivered in school settings (O'Callaghan & Cunningham, 2015). As this programme is 10 sessions long, I decided to amend the content and develop three workshops. To ensure I had not deviated from the content in developing the workshops I contacted Cool Connections author Laurie Seiler who helpfully reviewed the material and agreed the workshops were consistent with CBT and the Cool Connections programme.

Selecting Measures

I undertook scoping reviews of the literature about ACT interventions for children, identifying measures that had been used and how these might fit with the intended outcomes of the empirical study. I was aware that questionnaires with fewer items were more appropriate (to reduce the time taken for young people to complete them). For example, I selected the short-versions of the Avoidance and Fusion Questionnaire (AFQ-Y8) (Greco, Lambert & Baer, 2008) and of the Revised Child Anxiety and Depression Scale (RCADS-25) (Chorpita, Yim, Moffitt, Umemoto & Francis, 2000) over their longer counterparts. This approach may have allowed for a wider breadth of information to be obtained, but also have limited the information collected. For example, the RCADS-25 assesses anxiety and depression symptoms, but the full-length RCADS also assesses for symptoms of other mental health difficulties such as obsessive compulsive disorder, social anxiety and separation anxiety.

As well as identifying a process measure of ACT, I looked for a measure which might be suitable to

assess process change associated with CBT, i.e. modification of unhelpful cognitions (Beck, 1995;

Clark, 1995; Kendall, 1993). I identified several potential measures (Automatic Thoughts

Questionnaire; Children's Automatic Thoughts Scale; Child Response Styles Questionnaire; Child

Response Style Scale; Coping Scale for Children and Youth), however upon further discussion with

the research team none of these seemed appropriate for use with a universal population. The

Coping Scale for Children and Youth (Brodzinsky et al., 1992) which measures cognitive-behavioural

problem solving, cognitive avoidance and behavioural avoidance was considered the most

appropriate of the short-listed measures but we decided not to use it as it focuses predominantly on

avoidance and is 29 items long, which would have significantly increased the number of questions

for students. It is a limitation of the study that a process measure of CBT could not be identified, and

this may be useful for future research to address.

Consent

Consideration was given to whether it would be most appropriate to ask young people/their parents

to opt-out of participating in the research study, or whether written consent should be obtained

from parents and young people. I consulted guidance from the British Psychological Society (2004),

and the Cardiff University ethics committee, and guidance from other ethics committees overseeing

research with young people in schools was also obtained. The ethics committee initially raised

concerns about using opt-out consent and it was necessary to get written information from senior

members of staff at the school to explain that the workshops were within the school curriculum.

Obtaining ethical approval was a challenging part of the research process and it took several months

to achieve, which was stressful due to the need to complete the research within the school year. For

any future research I will be sure not to underestimate the time needed for the ethics process.

Since completing the research I have further considered the implications of opt-in and opt-out

consent. Using parental opt-out increases the likelihood of socially deprived students being included

in research (Spence, White, Adamson & Matthews, 2015), but relies on all parents being aware research is being undertaken. In the current study, none of the parents chose to opt their child out. I hope this reflects that the research was acceptable to parents, although it is possible that there are other reasons that parents did not opt their child out. For example, although we used the usual channels of communication used by the school, if parents did not read the information they were sent they may not have been aware of the research study.

Data Collection

Collecting the questionnaire data electronically allowed the outcome measures to be sent to students via school staff easily, and allowed students to choose when they completed the questionnaires (within a given time frame). Collecting qualitative data with students and school staff was more challenging, due to the need to work around the school timetable. The only time the school were able to spare for the student focus groups and for the staff interviews was during their lunch hour. This meant that I conducted the focus groups with a large number of young people (12 to 15), when guidance has recommended that 6 to 8 young people is optimum (Shaw, Brady & Davey, 2011). I had wondered if the young people might be prone to agreeing to each other in a focus group situation, however they appeared comfortable to share their views and to contradict each other. Conducting the focus groups with a large number of young people and within a narrow time period however did perhaps limit the opportunity to gather specific examples and to explore the workshops in depth. In hindsight it would have been useful to have had some visual cues to help prompt recall, such as screenshots of the videos shown. Additionally, it might have been helpful for me to have observed the workshops, however we made a decision not to do this to help minimise any bias from myself as a researcher and to ensure the students did not view me as a facilitator during the focus groups.

Data Analysis

I gave consideration to the most appropriate way to analyse and report the quantitative data from the questionnaires completed by the students. As a feasibility study, the study was designed to be similar to a RCT in that outcome data was obtained at multiple time points, but with the aim of assessing whether this was acceptable and feasible rather than to draw conclusions regarding intervention efficacy. Guidance for conducting feasibility studies recommends that hypothesis testing is not appropriate (Arain, Campbell, Cooper & Lancaster, 2010; Tickle-Degnen, 2013; Young, 2005). Arain et al. (2010) reviewed feasibility and pilot studies, identifying that a large number of these use hypothesis testing inappropriately, and this might be due to publication pressures (their review also identified that editors of medical journals have reported that pilot studies need to meet the standards of a full clinical trial to be published). Arain et al. (2010) concluded that it is crucial that feasibility studies do not evaluate the main outcome of interest as this should be left to the full trial. It was consequently decided that the most appropriate way to report the outcome data would be to provide means and standard deviations, allowing others to have an indication of the data that was obtained using the measures, but without the use of statistical analysis and hypothesis testing which can lead to inaccurate data reporting.

I also gave consideration to the most appropriate method for analysing the qualitative data. As the data needed to be systematically reviewed and summarised, but without a need to draw themes or consider meaning across different participants, it was decided that a method which was simple and allowed the data to be condensed without moving too far from the original data would be most appropriate. I decided thematic analysis would not be appropriate because there is an emphasis on identifying overall patterns in the data (Braun & Clarke, 2006), which was not necessary. Content analysis was selected as there is a concrete process to transform data into condensed meaning units, into codes and then to categories, with the researcher choosing whether or not to group the data into more abstract themes (Erlingsson & Brysiewicz, 2017). The strength of this is that data reported

remained close to the original data, allowing for accurate summaries to be provided.

A limitation of the qualitative data analysis is that the coding process was undertaken by one researcher. Samples of the transcripts and codes and categories were however reviewed by a colleague, although they did not do any coding themselves which can mean the data is more likely to have been influenced by my own predispositions. For example, it could be argued that I was unconsciously more invested in ACT being well-received as this was the intervention of interest, or conversely, that I was more invested in CBT as I developed the workshops. I tried to minimise this by ensuring the codes and categories closely reflected the raw data and were not overinterpreted to find meaning. This process taught me the importance of coding data clearly, so it is possible to easily see how categories were identified.

Critique of Systematic Literature Review

Selecting a Topic

I undertook scoping searches to identify an area which had not been reviewed but would be useful to summarise. I initially considered a review of mental health interventions in schools, however this topic has been widely reviewed with two similar reviews published in the last three years (Stockings et al., 2016; Werner-Seidler, Perry, Calear, Newby & Christensen, 2017). I also found that more than 10 reviews concerned with universal interventions were registered with PROSPERO (The International Prospective Register of Systematic Reviews), which likely reflects the growing need for preventative mental health support for young people.

I considered a more specific review focusing on ACT interventions in schools, however scoping searches identified a small number of papers, suggesting the topic might be too targeted. My scoping searches retrieved several papers concerning ACT interventions for children and young

people, many of which had been published in the last few years. The most recent review of ACT interventions for children was published in 2015 (Swain, Hancock, Dixon & Bowman, 2015), and included papers that were published up to December 2014. I therefore decided that a review of ACT interventions for children and young people from 2015 onwards could be useful and relevant.

Swain et al. (2015) reviewed ACT interventions for children, including all presenting difficulties. I considered whether this would be the most helpful approach to use for the current review, or whether it would be more useful to focus on a narrower group of presenting difficulties in line with guidance that systematic reviews and meta-analyses should be considering interventions for specific difficulties (Tolin, McKay, Forman, Klonsky & Thombs, 2015). A decision was made to focus on ACT interventions for mental health difficulties. Although physical health difficulties are often associated with co-morbid mental health difficulties, these were excluded from the review as there are currently several more targeted reviews registered with PROSPERO concerned with ACT interventions for persistent distressing physical conditions and chronic pain.

Searching the Literature

To help identify all the relevant databases to search I sought advice from a subject librarian about which databases I should consider to ensure I included research from multiple disciplines. I picked databases relevant to psychology, social sciences and large multi-disciplinary databases, as well as deciding to search the Association for Contextual Behavioural Science website which is widely used by ACT clinicians and researchers. I decided not to search reference lists because 'Acceptance and Commitment Therapy' is a distinct term and during the scoping searches the different databases were retrieving the same results.

Critical Appraisal

As the papers identified for inclusion in the literature review used a range of methods it was

necessary to find a critical appraisal tool which was appropriate for this. I considered the POMRF (Psychotherapy Outcome study Methodology Rating Form) (Öst, 2008) as this has previously been used in other literature reviews of ACT interventions (Öst, 2014; Swain et al., 2015). Although using this tool might have been preferable in terms of making comparisons between the current review and previous reviews, the POMRF was deemed unsuitable as several of the rating criteria assess participant diagnosis (e.g. reliability, severity) which would not have been appropriate for a review including preventative interventions for universal populations. I selected the QATSDD (Quality Assessment Tool for Studies with Diverse Designs (QATSDD) as the areas it evaluates are considered to be widely applicable to a range of studies (Sirriyeh, Lawton, Gardner & Armitage, 2012). This was useful for allowing all studies to be assessed against the same criteria (as opposed to using a different critical appraisal tool for different methodologies), however the QATSDD has limitations. For example, the QATSDD does not assess for bias or randomisation, and the inclusion of criteria about service user involvement in study design can lead to a poorly designed study obtaining a higher score (Fenton, Lauckner & Gilbert, 2015). As the literature review included only a small number of studies which used true randomisation, and all studies scored zero for service user involvement it is hoped that these potential limitations have been minimised. Completing the inter-rater reliability checks with a colleague also led me to question the objectivity of the QATSDD. For example, some domains such as 'appropriate sample size' are open to interpretation. Although the inter-rater reliability checks we undertook were categorised as 'moderate' (k=.791) and nearly reach the threshold for 'strong' (k=.80), I wonder if a more objective tool would have been useful, and in future literature reviews I think investing time in trialling different critical appraisal tools with another researcher would be helpful.

Empirical Research and Systematic Literature Review: Usefulness and Limitations of the line of enquiry

Implications for the Evidence Base

Literature reviews concerning ACT for children and young people have identified the need for methodologically rigorous research to help establish the evidence base (Coyne, McHugh & Martinez, 2011; Murrell & Scherbath, 2006; Swain et al., 2015). Both the empirical research and the literature review provide the essential foundation for subsequent larger scale research projects which could contribute high quality evidence for ACT, or the evidence base for universal interventions. For example, the feasibility study provides information about how a RCT could be successfully implemented in a school, and the literature review provides a summary of how ACT has been used as an intervention for different mental health difficulties, which may serve as a starting point for developing future research.

Implications for Theory

ACT is based on the theory that increasing psychological flexibility increases well-being (Hayes, Strosahl, Bunting, Twohig & Wilson, 2004; Wilson & Murrell, 2004). Mental health symptoms may improve as a secondary gain (Hayes, Luoma, Bond, Masuda & Lillis, 2006). As this was a feasibility study, no analysis was undertaken to provide any information about whether the theorised changes occurred in the present research study. However, I was interested to observe that in the eight-week follow-up, the students who attended the ACT workshop had higher levels of psychological flexibility and mindfulness, and lower levels of thought fusion and avoidance than the CBT and control groups. I recognise that these differences may have been present from the beginning and conclusions cannot be drawn regarding their relation to the workshops. In hindsight I have wondered if it would have been possible to obtain qualitative information from the participants about change processes, for example by asking about how they are manging difficult thoughts. However this would have been difficult to include in a study which was already asking participants for a lot of data and also requires a level of introspection from students which might be difficult to explore in a focus group.

CBT is based on the theory that information processing is essential for survival, but this is influenced

by individual perceptions, goals, expectations, memories and previous learning. Mental distress

occurs when there is a cognitive bias which impacts how information is processed, and different

mental health difficulties are associated with different bias' (Beck & Weishaar, 1989). CBT has

therefore been developed to target specific mental health difficulties (as opposed to a universal

population). Consistent with this idea, feedback from participants in the empirical study indicated

that the CBT workshops would have been more appropriate as a targeted intervention for young

people struggling with their mental well-being. Some of the papers included in the literature review

compared ACT and CBT, finding that both interventions led to improvements in thought defusion

and acceptance. This may suggest that there is some overlap in the change processes of both, even

though theoretically the approaches are different.

Implications for the Wider Context

The research has relevance to national policies and priorities which outline the need for prevention

and early intervention to support mental well-being in schools (Department of Education, 2018;

Department of Health & Department of Education, 2017; National Assembly for Wales, 2018). To

provide students with well-being support in schools, there is a need for research to establish what

type of support works and how this can feasibly be provided. The empirical research contributes to

this by providing information about how ACT based workshops can be delivered, and how these can

be researched in a more rigorous way.

The research may have relevance to organisations such as schools and mental health services.

Mental health services are unable to see all the children who are referred to them (Crenna-Jennings

& Hutchinson, 2018) and the responsibility and cost of mental health difficulties increasingly falls to

schools (Knapp et al., 2016). The research findings help contribute to an evidence base of early

intervention and prevention for student mental health difficulties which may help decrease demand

on mental health services and help schools and students to increase mental well-being.

At a local level, some of the resources developed for the ACT and CBT workshops have been shared via training days for a local charity who provides counselling support for secondary school students in the area where the research site is. Providing training based on evidence-based practice allows for the skill development of local staff which may help improve the service young people in the area receive.

Implications for Clinical Practice and Service Development

The empirical study has resulted in the development of both ACT and CBT workshops which could eventually be used in clinical practice or within schools, following appropriate evaluation, refinement and training of staff to deliver these. As time-limited workshops designed to fit in with the duration of a lesson, these might be particularly appropriate in schools, although some of the content could be appropriate for group interventions within child mental health teams. In particular, mental health services that focus more on low-level interventions for less severe or chronic mental health difficulties may find it helpful to know about ACT and the option of providing a few short skills development sessions. The literature review may also be useful for clinicians in mental health services who are looking for a summary of how ACT has been used with children and young people in recent years, and a critique of how rigorous this research has been.

The empirical research has highlighted a number of key learning points which may be helpful for any organisation who are trying to work in conjunction with a school. It was apparent from the research that school staff are managing multiple demands and it would be necessary for any external agency to work flexibly around the school timetable and to try to ensure that input required from school staff is kept to a minimum. For example, it is likely that teachers may struggle to complete questionnaires which might be required for research purposes or for clinical purposes.

Both the empirical research and literature review highlighted the importance of service user involvement. This is important for clinical practice as involving young people in mental health services can increase engagement, empowerment and support them to develop skills (Day, 2008). The empirical study indicated the importance of feedback from young people in finding interventions which are acceptable to them, and I was surprised that none of the studies included in the literature review utilised service user involvement when designing the study. For me, this indicated that although the benefits of service user involvement are recognised, it seems that service user involvement is not routinely used.

Suggestions for Further Research

As a feasibility and acceptability study, the research undertaken naturally leads to the development of a RCT to assess the efficacy of an ACT intervention in secondary schools. It would be useful to scale this research up, for example, obtaining a larger and more representative sample of students, using multiple research sites, using a sample of students which is large enough for inferential statistics to be used, obtaining data to help assess mediating and moderating factors (e.g. demographic information, measures of process change), and measuring outcomes over a longer time period. The findings from the empirical study may also have relevance to other researchers developing RCTs for psychological interventions, for example, the need to consider matching facilitators for experience, knowledge and training, and to find methods to ensure the intervention protocol is followed.

The literature review indicated that the evidence base for ACT for children and young people is still growing. As this increases, it would be useful for literature reviews in this area to focus specifically on different difficulties, for example, ACT for anxiety, ACT for depression, ACT for chronic pain. Although ACT is a transdiagnostic approach, guidance for treatment of mental health difficulties (e.g.

National Institute for Health and Care Excellence guidance) is written for specific difficulties and I think targeted reviews may help the efficacy of ACT to become more established, and to provide evidence which is of a quality which can be used to influence guidelines for evidence-based practice.

Proposals for Dissemination

The empirical research and the literature review will both be submitted for publication in peer-reviewed journals. I selected journals with consideration to where similar research has previously been published, impact factor, topic areas that are of interest to the journal, and the target audience. I thought the literature review would be most appropriate for the Journal of Contextual Behavioural Science which has previously published literature reviews concerning ACT, and is a frequented source of information for clinicians and researchers interested in ACT. I thought the audience for the empirical research was wider and that the findings would be relevant to schools and educational psychologists, as well as clinicians and researchers interested in youth mental health, and therefore selected the Journal of School Psychology. A poster presentation (Appendix W) of the empirical study has been accepted for the Association of Contextual Behavioural Science 2019 World Conference which will allow the findings to be shared with other researchers and clinicians with an interest in ACT and contextual behavioural science.

At a more local level the findings of the empirical study will also be shared with the workshop facilitators, and with school staff and students. At present, I am liaising with the school to decide on the best way to feedback the results. I have suggested that a summary leaflet might be useful for students (as it could easily be sent electronically), although I have also offered to visit the school to feedback to the students in person. I think it is important to acknowledge the time the school and students gave to the research project and to let them know how useful the information they provided has been. A further benefit might be that feeding back on the project could be an opportunity to provide young people with information about services or resources they can access if

they are concerned about their mental health. The CBT facilitators requested a written summary of the project once the results were analysed so the research will also be disseminated in this way.

Personal and Professional Reflections

I was excited to undertake this research project as it was closely aligned with my clinical interests of child mental health and prevention of mental health difficulties, and it felt like an opportunity to undertake research with clear clinical implications. The project has helped me to consider how research with clinical relevance can be undertaken within organisations, but also highlighted the iterative process of clinical practice and research further. For example, the need to consider how clinical changes might occur and if these fit with theoretical underpinnings of a model.

Setting up the research project was simpler than I had expected (mainly due to a supervisor having connections with a potential research site and potential facilitators for the CBT workshops), and the prospect of undertaking research in the future now feels more manageable and achievable. I hope that I find opportunities in my clinical work to incorporate research and contribute to practice-based evidence.

Summary

Overall, I feel positive about the impact of the research project and that it has been valuable due to its applications to clinical practice, youth mental health and the education sector, and for informing my own personal and professional development. Although the research was undertaken on a small scale, I hope that dissemination of the findings will be useful for individuals, for organisations, and that the findings will help inform further research with direct relevance to national policy and guidelines for mental health support.

References

Arain, M., Campbell, M. J., Cooper, C. L., & Lancaster, G. A. (2010). What is a pilot or feasibility study? A review of current practice and editorial policy. *BMC Medical Research Methodology*, *10*, 67. https://doi.org/10.1186/1471-2288-10-67

Beck, J. S. (1995). *Cognitive therapy: Basics and beyond*. New York, NY: Guilford Press.

Beck, A. T., & Weishaar, M. (1989). *Comprehensive handbook of cognitive therapy*. New York, NY: Springer.

Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., ... & Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, *36*(5), 452-457. https://doi.org/10.1016/j.amepre.2009.02.002

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

British Psychological Society. (2014). *Code of human research ethics.* Leicester, UK: British Psychological Society.

Brodzinsky, D. M., Elias, M. J., Steiger, C., Simon, J., Gill, M., & Hitt, J. C. (1992). Coping scale for children and youth: Scale development and validation. *Journal of Applied Developmental Psychology*, *13*(2), 195-214. https://doi.org/10.1016/0193-3973(92)90029-H

Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour Research and Therapy*, *38*(8), 835-855. https://doi.org/10.1016/S0005-7967(99)00130-8

Clark, D. A. (1995). Perceived limitations of standard cognitive therapy: A consideration of efforts to

revise Beck's theory and therapy. *Journal of Cognitive Psychotherapy*, *9*(3), 153-172.

https://doi.org/10.1891/0889-8391.9.3.153

Coyne, L. W., McHugh, L., & Martinez, E. R. (2011). Acceptance and commitment therapy (ACT):

Advances and applications with children, adolescents, and families. *Child and Adolescent

Psychiatric Clinics*, *20*(2), 379-399. https://doi.org/10.1016/j.chc.2011.01.010

Crenna-Jennings, W., & Hutchinson, J. (2018). *Access to children and young people's mental health

services – 2018.* London, UK: Education Policy Institute.

Day, C. (2008). Children's and young people's involvement and participation in mental health

care. *Child and Adolescent Mental Health*, *13*(1), 2-8. https://doi.org/10.1111/j.1475-

3588.2007.00462.x

Department of Education. (2018). *Mental health and well-being provision in schools.* Retrieved from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_

data/file/747709/Mental_health_and_wellbeing_provision_in_schools.pdf

Department of Health & Department of Education. (2017). *Transforming children and young people's

mental health provision: A green paper.* Retrieved from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_

data/file/664855/Transforming_children_and_young_people_s_mental_health_provision.pd

f

Dobkin, B. H. (2009). Progressive staging of pilot studies to improve phase III trials for motor

interventions. *Neurorehabilitation and Neural Repair*, 23(3), 197-206.

https://doi.org/10.1177/1545968309331863

Erlingsson, C., & Brysiewicz, P. (2017). A hands-on guide to doing content analysis. *African Journal of

Emergency Medicine*, *7*(3), 93-99. https://doi.org/10.1016/j.afjem.2017.08.001

Feeley, N., Cossette, S., Côté, J., Héon, M., Stremler, R., Martorella, G., & Purden, M. (2009). The

importance of piloting an RCT intervention. *Canadian Journal of Nursing Research*, *41*(2), 84-

99.

Fenton, L., Lauckner, H., & Gilbert, R. (2015). The QATSDD critical appraisal tool: Comments and

critiques. *Journal of Evaluation in Clinical Practice*, *21*(6), 1125-1128.

https://doi.org/10.1111/jep.12487

Gillham, J. E., Brunwasser, S. M., & Freres, D. R. (2008). Preventing depression early in adolescence:

The Penn resiliency program. In J.R.Z. Abela & B.L. Hankin (Eds). Handbook of Depression in

children and adolescents (pp. 309-332). New York, NY: Guilford Press.

Gitlin, L. N. (2013). Introducing a new intervention: An overview of research phases and common

challenges. *American Journal of Occupational Therapy, 67*(2), 177-184.

https://doi.org/10.5014/ajot.2013.006742

Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and

adolescence: Development and evaluation of the avoidance and fusion questionnaire for

youth. *Psychological Assessment*, *20*(2), 93-102. http://dx.doi.org/10.1037/1040-

3590.20.2.93

Hayes, S. C., Levin, M. E., Plumb-Vilardaga, J., Villatte, J. L., & Pistorello, J. (2013). Acceptance and

commitment therapy and contextual behavioral science: Examining the progress of a

distinctive model of behavioral and cognitive therapy. *Behavior Therapy*, *4*(2), 180-198.

https://doi.org/10.1016/j.beth.2009.08.002

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment

therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1-25.

https://doi.org/10.1016/j.brat.2005.06.006

Hayes, S.C., Strosahl, K.D., Bunting, K., Twohig, & Wilson, K.G. (2004). What is acceptance and commitment therapy? In S.C. Hayes & K.D. Strosahl (Eds.) *A practical guide to acceptance and commitment therapy* (pp. 1-29). New York, NY: Springer.

Hayes, S. C., Villatte, M., Levin, M., & Hildebrandt, M. (2011). Open, aware, and active: Contextual approaches as an emerging trend in the behavioral and cognitive therapies. *Annual Review of Clinical Psychology*, *7*(1), 141-168. https://doi.org/10.1146/annurev-clinpsy-032210-104449

Kendall, P. C. (1993). Cognitive-behavioral therapies with youth: guiding theory, current status, and emerging developments. *Journal of Consulting and Clinical Psychology*, *61*(2), 235-247. https://doi.org/10.1146/annurev-clinpsy-032210-104449

Kendall, P. C., & Hedtke, K. A. (2006). Cognitive-behavioral therapy for anxious children: Therapist manual. Ardmore, PA: Workbook Publishing.

Knapp, M., Ardino, V., Brimblecombe, N., Evans-Lacko, S., Iemmi, V., King, D., Snell, T. (2016). *Youth mental health: New economic evidence.* London, UK: London School of Economics Personal Social Services Research Unit.

McPin Foundation. (2018). *Research priorities for children and young people's mental health: Interventions and services.* London, UK: McPin Foundation.

Murrell, A. R., & Scherbarth, A. J. (2006). State of the research & literature address: ACT with children, adolescents and parents. *International Journal of Behavioral Consultation and Therapy*, *2*(4), 531-543. http://dx.doi.org/10.1037/h0101005

National Assembly for Wales. (2018). *Mind over matter: A report on the step change needed in emotional and mental health support for children and young people in Wales.* Cardiff, UK: National Assembly for Wales.

O'Callaghan, P., & Cunningham, E. (2015). Can a targeted, group-based CBT intervention reduce

    depression and anxiety and improve self-concept in primary-age children?. *Educational*

    Psychology in Practice, *31*(3), 314-326. https://doi.org/10.1080/02667363.2015.1060587

Orsmond, G. I., & Cohn, E. S. (2015). The distinctive features of a feasibility study: Objectives and

    guiding questions. *OTJR: Occupation, Participation and Health*, *35*(3), 169-177.

    https://doi.org/10.1177/1539449215578649

Öst, L. G. (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-

    analysis. *Behaviour Research and Therapy*, *4*(3), 296-321.

    https://doi.org/10.1016/j.brat.2007.12.005

Öst, L. G. (2014). The efficacy of acceptance and commitment therapy: an updated systematic

    review and meta-analysis. *Behaviour Research and Therapy*, *61*, 105-121.

    https://doi.org/10.1016/j.brat.2014.07.018

Puskar, K. R., Lamb, J., & Tusaie-Mumford, K. (1997). Teaching kids to cope: A preventive mental

    health nursing strategy for adolescents. *Journal of Child and Adolescent Psychiatric*

    Nursing, *10*(3), 18-28. https://doi.org/10.1111/j.1744-6171.1997.tb00410.x

Rapee, R. M., Lyneham, H. J., Schniering, C., Wuthrich, V., Abbott, M. A., Hudson, J. L., … Wignall, A.

    (2006). *The cool kids child and adolescents anxiety program – therapist manual*. Sydney,

    Australia: Centre for Emotional Health, Macquarie University.

Rooney, R., Rudge, L., Snowball, L., Roberts, C., and Pike, L. (2004). *The positive thinking program:*

    Prevention manual. Perth, Australia: Curtin University of Technology.

Seiler, L. (2008). *Cool connections with cognitive behavioural therapy: Encouraging self-esteem,*

    resilience and well-being in children and young people using CBT approaches. London, UK

    and Philadelphia, PA: Jessica Kingsley Publishers.

Shaw, C., Brady, L. M., & Davey, C. (2011). *Guidelines for research with children and young people*. London, UK: National Children's Bureau Research Centre.

Sirriyeh, R., Lawton, R., Gardner, P., & Armitage, G. (2012). Reviewing studies with diverse designs: The development and evaluation of a new tool. *Journal of Evaluation in Clinical Practice*, *18*(4), 746-752. https://doi.org/10.1111/j.1365-2753.2011.01662.x

Spence, S., White, M., Adamson, A. J., & Matthews, J. N. (2015). Does the use of passive or active consent affect consent or completion rates, or dietary data quality? Repeat cross-sectional survey among school children aged 11–12 years. *BMJ Open*, 5(1), e006457. http://dx.doi.org/10.1136/bmjopen-2014-006457

Stockings, E. A., Degenhardt, L., Dobbins, T., Lee, Y. Y., Erskine, H. E., Whiteford, H. A., & Patton, G. (2016). Preventing depression and anxiety in young people: a review of the joint efficacy of universal, selective and indicated prevention. *Psychological Medicine*, *46*(1), 11-26. https://doi.org/10.1017/S0033291715001725

Swain, J., Hancock, K., Dixon, A., & Bowman, J. (2015). Acceptance and commitment therapy for children: A systematic review of intervention studies. *Journal of Contextual Behavioral Science*, *4*(2), 73-85. https://doi.org/10.1016/j.jcbs.2015.02.001

Tickle-Degnen, L. (2013). Nuts and bolts of conducting feasibility studies. *American Journal of Occupational Therapy*, *67*(2), 171-176. https://doi.org/10.5014/ajot.2013.006270

Tolin, D. F., McKay, D., Forman, E. M., Klonsky, E. D., & Thombs, B. D. (2015). Empirically supported treatment: Recommendations for a new model. *Clinical Psychology: Science and Practice*, *22*(4), 317-338. https://doi.org/10.1111/cpsp.12122

Werner-Seidler, A., Perry, Y., Calear, A. L., Newby, J. M., & Christensen, H. (2017). School-based depression and anxiety prevention programs for young people: A systematic review and

meta-analysis. *Clinical Psychology Review*, *51*, 30-47.

https://doi.org/10.1016/j.cpr.2016.10.005

Wilson, K. G., & Murrell, A. R. (2004). Values work in acceptance and commitment therapy. In S.C. Hayes, V.M. Follette & M.M. Linehan (Eds.) *Mindfulness and acceptance: Expanding the cognitive–behavioral tradition.* (pp.120-151) New York, NY: Guilford Press.

Young, J. (2005). When should you use statistics? *Swiss Medical Weekly, 135*, 337-338.

Appendix A. Journal of Contextual Behavioural Science Guide for Authors

Types of article

All manuscripts must clearly and explicitly be of relevance to CBS.

Articles should fall into one of seven categories:
1. Empirical research (up to 6000 words)
2. Brief empirical reports (up to 3000 words)
3. Review articles (up to 10,000 words)
4. Conceptual articles (up to 6000 words)
5. In practice (up to 3000 words)
6. Practical innovations (up to 3000 words)
7. Professional interest briefs (up to 3000 words)

Word limits exclude references, tables and figures but include the abstract

Review articles. Manuscripts reviewing a wide range of topics are encouraged as long as their content is directly relevant to CBS. Systematic reviews and meta-analyses are particularly welcome. Authors are advised to consult relevant MARS (http://www.apa.org/pubs/authors/jars.pdf) and PRISMA resources (http://www.prisma-statement.org/) when preparing such manuscripts.

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Authorship

All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Language
Please write your text in good English (American or British usage is accepted, but not a mixture of these).

Informed consent and patient details

Studies on patients or volunteers require ethics committee approval which should be documented in the paper. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

 Preparation

Peer review

This journal operates a double blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

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.

Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices
If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract
Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site.
Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images and in accordance with all technical requirements.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements
Collate acknowledgements in a separate section at the end of the article before the

references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Math formulae

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Please avoid using vertical rules and shading in table cells.

References

Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/journal-of-contextual-behavioral-science
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style

Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be ordered online or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK.
List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
Reference to a journal publication:
Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications, 163*, 51–59. https://doi.org/10.1016/j.Sc.2010.00372.
Reference to a journal publication with an article number:
Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2018). The art of writing a scientific article. *Heliyon*, *19*, e00205. https://doi.org/10.1016/j.heliyon.2018.e00205.
Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style.* (4th ed.). New York: Longman, (Chapter 4).

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (2009). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.

Reference to a website:

Cancer Research UK. Cancer statistics reports for the UK. (2003). http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/ Accessed 13 March 2003.

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.

Appendix B. Reasons for exclusion

Table A1. Reasons for exclusion

Article	Reason
Azadeh, Kazemi-Zadhrani & Besharat (2016)	No measure of mental health used as an outcome
Cederberg, Dahl, von Essen & Ljungman (2017)	Young people with physical health difficulties
Chang & Hwang (2017)	Young people with behavioural difficulties
Eilers & Hayes (2015)	Young people with neuro-developmental difficulties
Enoch & Dixon (2017)	No measure of mental health used as an outcome
Enoch & Dixon (2018)	No measure of mental health used as an outcome
Erawati, Triredjeki & Sarwono (2018)	No measure of mental used as an outcome
Habibollahi & Soltanizadeh (2016)	Not published in English
Huestis et al. (2017)	Young people with physical health difficulties
Kallesøe et al. (2016)	Young people with physical health difficulties
Kallesøe et al. (2017)	Young people with physical health difficulties
Kanstrup et al. (2016)	Young people with physical health difficulties
Kemani, Kanstrup, Jordan, Caes & Gauntlett-Gilbert (2018)	Young people with physical health difficulties
Kemani, Olsson, Holmstrom & Wicksell (2016)	Young people with physical health difficulties
Makki et al. (2018)	No measure of mental health used as an outcome
Martin et al. (2016)	Young people with physical health difficulties
Moazzezi, Moghanloo, Moghanloo & Pishvaei (2015)	Young people with physical health difficulties
Moghanloo, Moghanloo & Moazezi (2015)	Young people with physical health difficulties
Mohammadi, Farhoudian, Shoaee, Younesi & Dolatshahi (2015)	Young people with behavioural difficulties
Murrell, Steinberg, Connally, Hulsey & Hogan (2015)	Young people with neurodevelopmental difficulties
Puolakanaho et al. (2019)	No measure of mental health used as an outcome
Simon, Driessen, Lambert & Muris (2019)	No measure of mental health used as an outcome
Thurstone, Hull, Timmerman & Erick (2017)	Young people with behavioural difficulties
Tighe et al. (2017)	Participants aged 18 and over
Tracey, Gray, Truong & Ward (2018)	Young people with behavioural difficulties

Appendix C. Journal of School Psychology Guide for Authors

Types of contributions

The Journal of School Psychology publishes research on assessment; consultation; intervention mechanisms and approaches; and schooling effects on social, cognitive, mental health, and achievement-related outcomes. The vast majority of its articles focus on issues directly relevant to children, adolescents, or families in school and related settings. Scholarly narrative reviews of the literature on research and practices relevant to psychological and behavioral processes in school settings may also be appropriate. The *Journal of School Psychology* does not typically test reviews, book reviews, obituaries, or comments.

Please format your manuscript according to the Publication Manual of the American Psychological Association, Sixth Edition (2010).

Before You Begin

Studies in humans

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Language
Please write your text in good English (American or British usage is accepted, but not a mixture of these).

Preparation

Peer review

This journal operates a double blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

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.

Experimental
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.

Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Units

Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.

Math formulae

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

Footnotes

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

Figure captions

Ensure that each illustration has a caption. Supply captions separately, not attached to the

figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Please avoid using vertical rules and shading in table cells.

References

Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

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Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

http://open.mendeley.com/use-citation-style/journal-of-school-psychology
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style
Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5, copies of which may be ordered online or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK.
List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
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Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications, 163*, 51–59. https://doi.org/10.1016/j.Sc.2010.00372.
Reference to a journal publication with an article number:
Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2018). The art of writing a scientific article. *Heliyon*, *19*, e00205. https://doi.org/10.1016/j.heliyon.2018.e00205.
Reference to a book:
Strunk, W., Jr., & White, E. B. (2000). *The elements of style.* (4th ed.). New York: Longman, (Chapter 4).
Reference to a chapter in an edited book:
Mettam, G. R., & Adams, L. B. (2009). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York: E-Publishing Inc.
Reference to a website:
Cancer Research UK. Cancer statistics reports for the UK. (2003). http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/ Accessed 13 March 2003.
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.

Appendix D. Letter from Severn Vale School

Empowering all to achieve

SV
Severn Vale School
An Academy

To whom it may concern,

R.e. Developing a Brief Acceptance and Commitment Therapy Intervention in Schools

I can confirm that running these interventions is in no way outside the kind of provision students would receive as part of their PSHE education here at Severn Vale. We have worked with several outside agencies in the past, most recently the University of Bristol on their body image and wellbeing research (where they followed a similar pattern of teaching some of our PSHE groups and passing on their findings so we could develop our delivery model). We are very keen to continue these collaborations as they help inform our practice and improve the overall experience of the students. It is not at all unusual for classes within the year group to experience different topics in different ways and on occasion for some to have outside speakers whilst others may not.

I can confirm that I have no concerns about the risks this intervention may pose to students and to confirm that we have appropriate safeguarding procedures agreed and in place.

Yours sincerely,

Barry Hockaday
Subject Leader for Futures

Richard Johnson
Head Teacher

Ofsted
Good rating

Appendix E. Approval from Ethics Committee

From: psychethics
Sent: 12 January 2018 11:10
To: Emma Harris; Victoria Samuel
Subject: Ethics Feedback - EC.17.11.14.5006R3

Dear Emma,

The Ethics Committee has considered your revised project proposal: *Developing a brief Acceptance and Commitment Therapy intervention in schools (EC.17.11.14.5006R3).*

The project has now been approved on the condition that the project is a service evaluation to audit procedures that you are implementing.

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

Best wishes,
Mark Jones

School of Psychology Research Ethics Committee

Cardiff University
Tower Building
70 Park Place
Cardiff
CF10 3AT

Tel: +44(0)29 208 70360
Email: psychethics@cardiff.ac.uk
http://psych.cf.ac.uk/aboutus/ethics.html

Prifysgol Caerdydd
Adeilad y Tŵr
70 Plas y Parc
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CF10 3AT

Ffôn: +44(0)29 208 70360
E-bost: psychethics@caerdydd.ac.uk

Appendix F. Opt-out letter sent to parents

Dear …

My name is Emma Harris and I am a Trainee Clinical Psychologist on the South Wales Doctoral Programme of Clinical Psychology. I am writing to make you aware that myself and a small team of researchers are planning to undertake a research project at Severn Vale secondary school.

Trained psychologists/mental health professionals are providing groups which aim to decrease stress and build resilience to all Year 8 students as part of the school curriculum, and these will be delivered within the usual school timetable. The aim of the research project is to evaluate these groups and find out whether they are acceptable and helpful to Year 8 students. We hope the groups will be an opportunity to help students develop skills which will support them to maintain their mental well-being and feel good about themselves. We will be comparing three types of group:

1) Cognitive Behavioural Skills. This helps young people to identify difficult thoughts, feelings and behaviours, and make changes to these.
2) Acceptance and Commitment Skills. This is a newer version of CBT which focuses on helping young people to manage their difficult thoughts and feelings and move towards the things they value.
3) Attending PSHE lessons as usual. The third group will attend lessons as usual, which will allow us to make comparisons between both the CBT group, the ACT group and students who attend PSHE.

We will be asking all Year 8 students if they would be happy to complete some questionnaires as homework or within the group sessions, and once more at a follow-up session which will be approximately three months after the last group. We anticipate that we will run three groups, approximately once a month, with the first group being in February 2018. The groups do not involve students receiving therapy. They are based on psychological ideas and involve learning Cognitive and Behavioural Skills or Acceptance and Commitment Skills.

The questionnaires will cover a number of areas such as mood, thoughts, feelings, stress, and experience of attending the group.

We will also ask all Year 8 students who attend the CBT or the ACT group if they would be happy to participate in a short focus group, where Year 8 students will meet with a researcher to provide further feedback about their experience of the group.

I have enclosed the information sheet we will be providing your child with to help them make an informed decision about whether they would like to participate. Details about how any information your child provides will be used and stored is included in this information sheet. Please read this and please do not hesitate to contact us if you have any questions. Although your child will be required to attend one of the groups as it is part of the school curriculum, completing the questionnaires and being part of the focus group is completely voluntary, and your child will be asked to decide whether they wish to do this or not. If after reading the information you decide you would prefer that your child did not complete any questionnaires or be part of a focus group then please let us know by 16th February 2018, so we can ensure they are not included.

The contact details of the research team can be found on the enclosed information sheet. Please get in touch with us if you have any questions.

Appendix G. Information sheet for students

Study name: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Introduction

Year 8 students in your school are going to be receiving some different type of group work in PSHE. The aim of the groups is to help students manage stress and build resilience (the ability to recover from tough or difficult situations). There are two different types of group that are being delivered. One of them involves learning skills based on a psychological idea called Cognitive Behaviour Therapy (CBT) and the other involves learning skills based on a different psychological idea called Acceptance and Commitment Therapy (ACT). The groups do not involve receiving therapy but are aimed at developing skills. As part of the usual PSHE timetable, you will be in the CBT group, the ACT group or the usual PSHE lesson.

We want to find out if the groups are helpful to students, and to learn more about what students think of the group. To do this we are doing some research which means we will ask students to complete some questionnaires and, if they are willing, to take part in a focus group.

You are being invited to take part in this research study. We hope this will help us learn more about whether it is possible to provide short groups 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 a Trainee Clinical Psychologist (Emma Harris) on the South Wales Doctoral Programme in Clinical Psychology. The research is being done as part of a 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 deliver short groups to secondary school students to help students learn ways to manage stress and build resilience (the ability to recover from tough or difficult situations). We are trying to find out if it is practical to deliver the groups in schools and gather information about how students experience the group, and whether this is helpful.

Some students will go to the ACT groups, some will go to the CBT groups, and some will go to their lesson as usual. This will allow us to make comparisons between the three groups. The group that you go to will depend on which class you are in. The groups do not involve receiving therapy. They are based on psychological ideas and involve learning Cognitive and Behavioural Skills or Acceptance and Commitment Skills.

Why are you doing the research project?

Research tells us that there are a large number of secondary school students who experience difficult thoughts, feelings and can feel stressed at times. We are interested in knowing more about

whether providing support in schools and teaching young people about managing difficult thoughts and feelings might be a way to help you feel less stressed and more able to cope. All Year 8 students will be invited to take part in the research project.

We are conducting this research study as the first stage of a bigger research project. The information we collect now will be used to help us develop future research projects using ACT groups for secondary school students. This is because ACT is a newer psychological idea than CBT and we want to know more about whether it is useful for young people.

What will I be doing if I decide to take part?
The groups are being delivered as part of the school curriculum. This means that all Year 8 students will attend the groups as part of their usual timetable. There are two parts of the research project for students to take part in.

Part 1:
All Year 8 students who want to take part in the research project will be asked to complete some questionnaires at each group session. The questionnaires will relate to a range of things, such as mood, thoughts, feelings and stress. This will help us to understand if students are experiencing stress or having difficult thoughts and feelings, and whether the questionnaires are a good way for us to collect this information. There will also be questionnaires about how you find the group and if this was a positive or negative experience.

There will be approximately 3 group sessions (approximately one per month), and we will visit the school approximately 3 months after the last group to as you to complete the questionnaires again. The questionnaires will be completed during the group sessions or as part of homework tasks.

Part 2:
We will ask all Year 8 students who want to take part in the research project and are in either the CBT or the ACT group if they would be happy to take part in a focus group. This would involve meeting with a researcher as part of a small group of other Year 8 students. This will be a group discussion where the researcher will ask questions about how you found the groups, such as which parts were helpful or unhelpful and whether you have any suggestions for change.

Do I have to take part?
No, it is up to you whether you want to take part or not. All Year 8 students will go to the groups because they are part of the school timetable, but it is up to you whether you want to complete the questionnaires or be involved in a focus group. It is also okay if you would like to answer the questionnaires, but would rather not be part of a focus group.

What if I decide to take part but change my mind later on?
That is not a problem, and you can stop taking part in the research project. You will still need to go to the groups as they are part of the school timetable, but we will not ask to complete questionnaires or be part of the focus group if you change your mind about this. You can also ask us not to use any of the information you have provided in your questionnaires and we will remove your data from our data set if you ask us to within 6 months of our follow-up session at the school. To do this, you will have to tell us your unique identifying number so we know which data to delete. The school will delete the database of unique identifying numbers within 6 months of our follow-up session at the school, so we will not be able to withdraw your data after this time. If you are involved in the focus group it will not be possible to withdraw any information you have provided in the focus group.

How will my information be used?
We will ask the school to give each student a unique identifying number, which you will be asked to enter when you complete questionnaires. The research team will not know which number is associated with each student to keep the data anonymous. This means that when the research team looks at the questionnaire data we will not know which student has provided it.

We will be asking the school to keep a record of which unique identifying number is associated with each student. School staff will not have access to the responses you put on questionnaires unless we notice you have given an answer which might mean you are not safe, somebody else is not safe, or if your answers indicate you are experiencing a significant amount of distress or upset. If this situation arises, we will let a member of school staff know (by telling them the unique identifying number on your questionnaire), and the school will use the number to identify who you are so they know who is distressed. The school will then follow their usual procedures and meet with you to check how you have been and whether you need further support.

The focus group will be recorded on a voice recorder which is protected by a password (which only the research team will know). The details of the group discussion will be kept confidential (only shared with the research team and transcriber), unless something is said which makes us think you or somebody else may be at risk. If this situation arises we will tell school staff about our concerns. We will be asking somebody who is not part of the research team to transcribe (write down what was said word for word) the focus group. The recording will be sent to them in a password protected electronic file to keep the information confidential.

We (the research team) will not store any information which could identify you. All information (questionnaires, recordings and the focus group transcription) will be kept in confidential electronic files/databases or locked filing cabinets at Cardiff University which can only be accessed by the research team. All information is kept for 5 years and then deleted after this time.

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 published for wider audiences to read), but it will not be possible to identify which students took part or to link any student to their questionnaire responses.

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. You can also tell a member of school staff or your parent/carer if you have any worries about the research project, and they will let us know.

Alternatively you can contact Reg Morris (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:

Are there any risks or disadvantages to taking part?
We hope you will enjoy attending the groups. The nature of the groups and the questionnaires mean that we will be asking you to think about things such as feelings and mood. It is possible this may be upsetting, and we would encourage you to talk to somebody running the group if this is the case. You can also ask a member of school staff or your parent/carer to let us know if you are finding the group or the questionnaires difficult and they will let us know. We will do our best to support you if you do find any parts of the research project difficult.

What are the benefits of taking part?
The groups are based on psychological theories which aim to help people manage difficult thoughts and feelings, and to do more of the things that are important to them. We hope you will learn some new skills from the groups if you are in either the CBT group or the ACT group. For students who attend their lessons as usual the information you give us is very important, and being part of a comparison group helps us to find out if it would be a good idea to run similar groups for students in the future.

Contact details

Emma Harris   Dr Victoria Samuel   Dr Chloe Constable
Trainee Clinical Psychologist   Senior Research Tutor   Clinical Psychologist
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Appendix H. Information sheet for teachers

Study name: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Introduction
You are being invited to take part in a research study to help us learn more about whether it is possible to provide short groups 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 a Trainee Clinical Psychologist (Emma Harris) on the South Wales Doctoral Programme in Clinical Psychology. The research is being done 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 deliver short groups to secondary school students to help them learn ways to manage stress and build resilience (the ability to recover from tough or difficult situations). We are trying to find out if it is practical to deliver Acceptance and Commitment Therapy (ACT) and Cognitive Behaviour Therapy (CBT) based skills groups in schools and gather information about how students and staff experience the groups, and whether they are helpful. Some students will go to the ACT groups, some will go to the CBT groups, and some will go to their PSHE lesson as usual. This will allow us to make comparisons between the three groups. The groups do not involve students receiving therapy. They are based on psychological ideas and involve learning Cognitive and Behavioural Skills or Acceptance and Commitment Skills.

Why are you doing the research project?
Research tells us that there are a large number of secondary school students who experience mental health difficulties and can feel stressed at times. We are interested in knowing more about whether providing support in schools and teaching young people about managing difficult thoughts and feelings might be a way to help them feel less stressed and more able to cope. All Year 8 students will be invited to take part in the research project, as well as the teachers who are present whilst the groups are being delivered.

We are conducting this research study as the first stage of a bigger research project. The information we collect now will be used to help us develop future research projects which will also relate to ACT groups for secondary school students.

What will I be doing if I decide to take part?
The groups are being delivered as part of the school curriculum. This means that all Year 8 students will attend the groups as part of their usual timetable, and these will be supervised by a member of staff. We are planning to deliver three groups, approximately once a month, with a follow-up session for students to complete questionnaires again approximately three months later.

As a member of school staff, we are asking if you would be willing to participate in a short semi-structured interview with a member of the research team, after the groups have been delivered. This will involve answering some questions and having a discussion about how you think the group has impacted the school, students and staff. We estimate this will not take longer than 30 minutes.

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?
That is not a problem, and you can stop taking part in the research project. You can withdraw from the interview at any time. We will not be recording any identifiable information which will link your interview responses to you, which means it will not be possible to withdraw your data after the interview is completed.

How will my information be used?
We will record the interview on a voice recorder which is protected by a password (which only the research team will know). The details of the interview will be kept confidential (only shared with the research team and transcriber), 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. We will be asking somebody who is not part of the research team to transcribe the interview. The recording will be sent to them in a password protected electronic file to keep the information confidential.

The recordings 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. We (the research team) will not store any information which could identify you.

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 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.

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 Reg Morris (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 groups 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.

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 pleased to know that your involvement helps us to understand how staff perceive the groups.

Contact details

Emma Harris	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
Harrise8@cardiff.ac.uk	Victoria.samuel@wales.nhs.uk	chloe.constable@nhs.net
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Appendix I. Information sheet for workshop facilitators

Study name: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Introduction
You are being invited to take part in a research study to help us learn more about whether it is possible to provide short groups 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 if you have any questions or would like further information.

The researchers
The research project is being carried out by a Trainee Clinical Psychologist (Emma Harris) on the South Wales Doctoral Programme in Clinical Psychology. The research is being done 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 deliver short groups to secondary school students to help them learn ways to manage stress and build resilience (the ability to recover from tough or difficult situations). We are trying to find out if it is practical to deliver Acceptance and Commitment Therapy (ACT) and Cognitive Behaviour Therapy (CBT) based skills groups in schools and gather information about how students and staff experience the groups, and whether they are helpful. Some students will go to the ACT groups, some will go to the CBT groups, and some will go to their PSHE lesson as usual. This will allow us to make comparisons between the three groups. The groups do not involve students receiving therapy. They are based on psychological ideas and involve learning Cognitive and Behavioural Skills or Acceptance and Commitment Skills.

Why are you doing the research project?
Research tells us that there are a large number of secondary school students who experience mental health difficulties and can feel stressed at times. We are interested in knowing more about whether providing support in schools and teaching young people about managing difficult thoughts and feelings might be a way to help them feel less stressed and more able to cope. All Year 8 students will be invited to take part in the research project, as well as the teachers who are present whilst the groups are being delivered.

We are conducting this research study as the first stage of a bigger research project. The information we collect now will be used to help us develop future research projects which will also relate to ACT groups for secondary school students.

What will I be doing if I decide to take part?
The groups are being delivered as part of the school curriculum. This means that all Year 8 students will attend the groups as part of their usual timetable, and these will be supervised by a member of staff. We are planning to deliver three groups, approximately once a month, with a follow-up session for students to complete questionnaires again approximately three months later.

As one of the workshop facilitators, we are asking if you would be willing to participate in a short semi-structured interview with a member of the research team, after the groups have been delivered. This will involve answering some questions and having a discussion about how you found the process of being involved in the delivery of the workshops. We estimate this will take approximately 30 minutes.

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?
That is not a problem, and you can stop taking part in the research project. You can withdraw from the interview at any time. We will not be recording any identifiable information which will link your interview responses to you, which means it will not be possible to withdraw your data after the interview is completed.

How will my information be used?
We will record the interview on a voice recorder which is protected by a password (which only the research team will know). The details of the interview will be kept confidential (only shared with the research team and transcriber). We will be asking somebody who is not part of the research team to transcribe the interview. The recording will be sent to them in a password protected electronic file to keep the information confidential.

The recordings 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. We (the research team) will not store any information which could identify you.

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 published for wider audiences to read), but it will not be possible to identify which students took part.

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 Reg Morris (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 groups means that we will 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.

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 pleased to know that your involvement helps us to understand how the facilitators experienced the groups.

Contact details

Emma Harris	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
Harrise8@cardiff.ac.uk	Victoria.samuel@wales.nhs.uk	chloe.constable@nhs.net
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Appendix J. Consent form for students (electronic)

Please read the following statements.

1. I have read the information sheet and have had the opportunity to ask questions
2. I understand that I am free to withdraw from completing the questionnaires and/or the focus group at any time
3. I am happy to complete questionnaires to help evaluate the groups
4. I understand that the information I share will be confidential (only shared with the research team) and made anonymous when it is used to write up the findings of the research study
5. I understand that if I report anything in the questionnaires and/or the focus group which indicate myself or somebody else might not be safe, or might be experiencing distress, the research team will need to report this to school staff.

[ ] I agree to all of the above statements and am happy to take part in this research study.

[ ] I do not wish to take part in this research study.

The part below was not part of the consent form for the students in the control group as they were not invited to take part in a focus group.

Please read the following statement:

I am happy to take part in a focus group (group discussion) with other students and a researcher to share my views about how I found the group.

[ ] Yes
[ ] No

Appendix K. Consent form for teachers (electronic)

Teachers will be asked to provide electronic consent to participate in the semi-structured interviews. Details of the consent form are below:

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

[ ] I understand that I am free to withdraw from the interview at any time

[ ] I understand that the information I share will be confidential (only shared with the research team) and made anonymous when it is used to write up the findings of the research study

[ ] I am happy to participate in a semi-structured interview.

Please confirm you agree with the above statements by typing your name in the box below:

Name:_____

Appendix L. Consent form for workshop facilitators (electronic)

Workshop facilitators will be asked to provide consent to participate in the semi-structured interviews. Details of the consent form are below:

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

[ ] I understand that I am free to withdraw from the interview at any time

[ ] I understand that the information I share will be confidential (only shared with the research team) and made anonymous when it is used to write up the findings of the research study

[ ] I am happy to participate in a semi-structured interview.

Please confirm you agree with the above statements by competing the details below:

Name:_____

Appendix M. Debrief form for students

Study: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Thank you
Thank you for participating in this research study. The information you have provided will help us to evaluate if short groups 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 groups in this way can help young people to decrease stress and build resilience. We appreciate the time you have given to the research project.

Data protection
The school will continue to keep a record of your unique identifying numbers for the next six months. This allows us to inform the school if your questionnaire responses lead us to think that you or someone else is at risk of harm, or experiencing distress. You can also request to have your questionnaire data withdrawn from the study during the next 6 months by contacting the research team and letting us know your unique identifying number. After this time the database of unique identifying numbers will be deleted but we will continue to store a record of your responses from the questionnaires, and the recordings from the focus group. This information will be confidential, and will be stored on password protected databases or in locked filing cabinets at Cardiff University. After 5 years this information will be deleted.

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

Emma Harris	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
Harrise8@cardiff.ac.uk	Victoria.samuel@wales.nhs.uk	chloe.constable@nhs.net
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If you have any questions relating to ethical issues and how this study is reviewed to ensure the well-being of the students 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

Appendix N. Debrief form for teachers

Study: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Thank you
Thank you for participating in this research study. The information you have provided will help us to evaluate if short groups 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 groups in this way can help young people to decrease stress and build resilience. We appreciate the time you have given to the research project.

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.

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

Emma Harris	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
Harrise8@cardiff.ac.uk	Victoria.samuel@wales.nhs.uk	chloe.constable@nhs.net
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School of Psychology Research Ethics Committee
Email: psychethics@cardiff.ac.uk
Tel: 029 20870360

Appendix O. Debrief form for workshop facilitators

Study: Developing a brief Acceptance and Commitment Therapy intervention for secondary school students.

Thank you
Thank you for participating in this research study. The information you have provided will help us to evaluate if short groups 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 groups in this way can help young people to decrease stress and build resilience. We appreciate the time you have given to the research project.

Data protection
The recordings from the interview 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.

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

Emma Harris	Dr Victoria Samuel	Dr Chloe Constable
Trainee Clinical Psychologist	Senior Research Tutor	Clinical Psychologist
Harrise8@cardiff.ac.uk	Victoria.samuel@wales.nhs.uk	chloe.constable@nhs.net
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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:
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Email: psychethics@cardiff.ac.uk
Tel: 029 20870360

Appendix P. Questionnaire for ACT and CBT groups

Thanks for your ongoing help with the research project 'Developing a brief Acceptance and Commitment Therapy intervention for secondary school students'.

Please answer a few questions to help us understand what you thought about the workshops you attended.
Thank you very much for all the time you have given to the research project so far!

1. I found the workshops helpful

| Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |

Any comments?

2. I found the information we learnt about in the workshops easy to understand

| Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |

Any comments?

3. The information in the workshops was relevant to me

| Strongly agree | Agree | Neither agree nor disagree | Disagree | Strongly disagree |

Any comments?

4. The number of workshops we had was…

| I would have liked a lot less sessions | I would have liked a few less sessions | About right | I would have liked a few more sessions | I would have liked a lot more sessions |

Any comments?

5. The length of each workshop was…

Much shorter than I would have liked	A little bit too short	About right	A little bit too long	Much longer than I would have liked

Any comments?

6. I thought the number of questions (in the electronic questionnaires) was…

About right	A few too many questions to answer	A lot more questions than I would have liked

Any comments?

7. Please name one thing you found helpful about the workshops.

8. Please name one thing you think we should do differently.

9. Please use this space to share any other feedback you have about the workshops and your experience of being part of it.

Appendix Q. Questionnaire for control group

Thanks for your ongoing help with the research project 'Developing a brief Acceptance and Commitment Therapy intervention for secondary school students'.

You may be aware that some Year 8 students have been having different types of PSHE lessons, where they have been attending workshops to help increase resilience and improve mental well-being. Your class has been the 'control group'. This means that although you have not been going to any workshops we have been asking you to complete questionnaires to allow us to make comparisons between the workshops and usual lessons. The information you have given is very important, and being part of a comparison group helps us to find out if it would be a good idea to run similar groups for students in the future.

Below you will find a few questions asking for your opinion about the research project. Thank you very much for all the time you have given to the research project so far!

1. What have other students told you about the workshops they have attended?

2. Do you think the information taught in the workshops could have been helpful to you? Why/why not?

3. How do you feel about not having been part of the workshops? Why/why not?

4. Would you have wanted to be part of the other workshops? Why/why not?

5. How did you find completing the questionnaires?
E.g. did you understand why you were asked to complete them, what did you think about the amount of questions, did you understand the questions.

6. Is there anything else you would like to tell us about your experience of being in the comparison group?

Appendix R. Prompts for focus groups with students

1. How did you find completing the questionnaires?
2. How did you find the workshops?
3. Tell me about what you learnt?
4. Was there anything you didn't understand?
5. Should we have done anything differently?
6. What was the most helpful thing you learnt during the workshops?
7. How did you find the activities in the workshops?
   Prompts for ACT group: survivor with the lion exercise, 54321 (sensory exercise), mindfulness of breathing/points of contact, sweets, value cards, videos
   Prompts for CBT group: CBT theory/hot cross bun, helping hands, wise worriers, being a judge, traffic light thinking, skydiving video, optical illusions
8. How did you find the terms Advisor, Noticer, Discover? Did they help you understand the content? (ACT group only)
9. How did you find the terms thoughts/feelings/behaviour/body signals? (CBT group only)
10. Have the groups made a difference to you in any way? How?
11. How would you describe the workshops to other students who were about to start them?
12. Anything else you'd like me to know?

Appendix S. Prompts for interviews with teachers

1. What did you think about the workshops?
2. Do you think the students understood the content?
3. Did you hear the students talk about the workshops after them?
4. Do you think the workshops had an impact on the students, staff or school?
5. Did you take anything away from the workshops?
6. Was there anything you think was confusing / hard to follow?
7. What do you think was the most useful / least useful aspect of the workshops?
8. What do you think about the number of sessions – too few / too many / about right?
9. Do you have any suggestions for improving the content or structure of the groups?
10. Would you like to see the intervention rolled out for all Year 8 students?

Appendix T. Questionnaires for workshop facilitators

1.   What elements of the group session worked well?

2.   What elements of the group session did not work well?

3.   What elements did the students engage well with?

4.   What elements did the students not engage so well with?

5.   Do you have any suggestions about how this group session could be improved if it was delivered again?

6.   Any issues with timings?

Appendix U. Prompts for interviews with workshop facilitators

1. How did you go about preparing for the groups?
2. How did you find the training for the workshops? (CBT only)
3. How did you find writing the workshops? (ACT only)
4. How did you find the delivery of the workshops?
5. What was your sense of how students understood the content/were engaging with it?
6. How did you find having a teacher present in the classroom?
7. What worked well?
8. What didn't work well?
9. How did you find the number of workshops and spacing of these?
10. Anything else it would be helpful for me to know about the workshops or the research project?

Appendix V. Example of content analysis

Content *Condensed Meaning Units*	Codes
So I wanted to ask how you found the experience of setting up the workshop with the school, although I know you were less involved in that part.	
Okay yes no sure. So it was easier than I thought in that we had a link with the existing school because of (local organisation), the charity working there already so we, they were used to kind of working with outside agencies and have like a positive sense about them, what people kind of bring to wellbeing so that helped. And having then met with (school teacher), not sure how we found (school teacher) in the first place. *set up was easy as there were existing links with the school* *school had positive experiences of outside agencies*	School were receptive
Okay	
Yes, I don't know if (local organisation) gave her the link or we found him because he's the head of pastoral care. Yes, he was so receptive and so helpful, straight away that really helps. But at the same time dealing with the school while people are busy and lots of you know kind of external people who were trying to liaise isn't always easy. *school staff receptive and helpful* *hard to liaise when school and external people busy*	School were receptive Challenges of workshop delivery
Yes	
And obviously there was some stresses when it snowed and we didn't know that they were going to close the school. Yes, I think it really highlighted to me the importance of having one link person but also having a backup person because when (school teacher) was off sick it all kind of fell apart because there was no one to oversee or keep it in line. So it feels like maybe having two link people or some kind of cover for the main link person would be really important. Yes but I'm aware that it could be very different if we have like no existing relationship with the school. Although that said I think a lot of schools are just so positive about having extra help. *stress caused by unexpected school closure* *need to have a backup link person* *would be different to link with the school without an existing relationship* *schools positive about extra help*	Unforeseen circumstances a challenge (weather) Need for multiple school contacts
Yes I guess it's hard to predict how these things could have gone. And were there any challenges in setting it up?	
Yes I guess the snow and (school teacher) being sick and information not being relayed and the logistics of all information that was sent. The PowerPoint presentations being sent, but because he wasn't there they weren't disseminated so that	Unforeseen circumstances a challenge (weather) unforeseen circumstances a

wasn't, there wasn't a sort of system that kicked in in his absence. And then there were problems with things like the photocopiers being like password protected. It was quite difficult to park there. Which is a minor difficulty so yes, just relating to time. But we found the school reception really helpful they gave us like a place to wait. I guess one of the challenges is just there's just no turnaround time so we had a time say to be there, 11:30 but then the lesson proceeding the one we were in finished at 11:30. So we were only able to go into the class at the point the last lesson finished. At which point like thousands of people were like piling down the stairs and we were trying to get up the stairs into the classroom, as the teacher. *snow was a challenge* *teacher being sick was a challenge* *Information not being communicated was a challenge* *no system for absence of teacher* *photocopiers being password protected a challenge* *parking at the school a challenge* *school reception provided a place to wait* *limited time to set up was challenging*	challenge (sickness) Challenges of working in an unfamiliar environment (technology) Challenges of working in an unfamiliar environment (parking) Time pressure (school timetable)
Sounds like a battle.	
It was really tight. As the teacher was trying to clean up the classroom, putting away Pritt sticks and you know getting the PowerPoint onto the flash drive or onto the computer and things like that. I don't think I quite factored that in I suppose you just kind of get used to like a clinical approach where you might have some kind of gap between sections and there was just no time and all of that time we were losing and when there's only an hour that's quite challenging. So I think it helped once we knew where the classroom was and we could sort of be ready to go. But yes, in the beginning, it was quite challenging and there's no time to kind of you know to get yourself ready it's just like straight in. Yes and I think you know there are logistical challenges as well in terms of some of the times we were going it coincided with when some people were having lunch. So we were like you know, there was more, like you know blustering around but also the pupils in our group were maybe having a late lunch so. *teacher tidying and setting things up* *different to clinical work* *no time* *losing time from workshop* *no time to get self ready* *busier as going at lunch time*	Time pressure (school timetable) Unfamiliarity of classroom teaching
Oh okay	
Like we weren't stopping them having lunch because they would have been having a lesson anyway but maybe it could impact on their concentration and stuff. I think it could have like a subtle effect, maybe just things like that.	Impact of school day on student engagement

time of day could impact student concentration	
Yes	
We had some technical problem with the Menti survey at some point. Which I've had problems before in schools, I'm not sure why just in terms of technology but yes so we had it all ready and when we clicked on the link it wouldn't always load. *technical difficulties with Menti*	Challenges of working in an unfamiliar environment (technology)
How'd you get around that?	
So the teacher helped us on a few occasions try and sort of refresh it or I don't know we just had to wait or a couple of times we just had to abandon it. Yes, and there were a few problems with phones, and not everyone had one. *needing support with menti* *not able to use menti* *not everyone had a phone*	Challenges of specific activities (not all students had phones)
Okay so you and (ACT facilitator) put together the workshops, how did you go about writing them?	
So just one thing to say about the schools as well which is completely separate is just that like on a personal level it is quite daunting going to work in a school which is something that I maybe hadn't fully realised. I was like apprehensive about it but you know just the sheer volume of people in a large classroom and the acoustics and things is just, it is really daunting and just so different from one to one work or even running a group because they're in rows and actually just like in the back of the classroom you couldn't always read like when the Menti responses were coming up you couldn't read them because it was just too far back. *daunting to work in classroom environment* *different from one-to-one work and groups* *students unable to see Menti responses from back*	Unfamiliarity of classroom teaching
Yes it sounds like you were working in quite a different environment to usual.	
And just working with such a large number of people and having to try and pitch to everybody and make sure that everybody understands. We had people in the class who didn't have English as their first language and they had to like use a translation app on their phone for some sections of the class and you know just some people that were quite you know like playful I guess rather than naughty. Yes just managing the dynamic keeping things focused and getting the balance between it being kind of engaging and exciting but not too exciting so that you can bring them back to the next exercise. *trying to make sure everyone understands* *some students using a translation app* *some students playful*	Challenge of pitching to all students Need to balance engagement and excitement

need students to be engaged but not too excited	
Were there bits that you found were too exciting or harder to balance?	
Yes I think the bits that were too exciting like maybe with the sweets that was great they loved the sweets but the… *sweet exercise too exciting*	Specific activity too exciting (disgusting sweets)
Two different flavours.	
They were different flavours yes they were all different flavours and some of the flavours were disgusting, like they really were disgusting. We let them throw it out and yes it was horrible, so there was like squealing and shouting and running to the bin. And it was great the way they embraced that but it was just sometimes hard to like then get them back and that's probably my lack of ability in controlling a large group of people and being assertive enough in that context and maybe we could just talk to the teacher more about that but actually she was good at helping us bring people back. That was quite exciting and what else was exciting? We gave them prizes for like the quiz like giving them chocolate was just like mass excitement. *disgusting sweets caused commotion* *hard to get students to re-focus* *hard to control students* *teacher helpful for re-focusing students* *chocolate quiz prizes were exciting*	Specific activity too exciting (disgusting sweets) Specific activity too exciting (quiz prizes)

Codes	Categories
Challenge of pitching to all students Challenges of specific activities (not all students had a phone) Challenge of working with school Challenging to teach material which is less familiar Mismatch between content and facilitator's individual practice More time needed Time pressure (balancing other demands) Time pressure (having to cut parts) Time pressure (not enough time for content) Time pressure (school timetable) Time pressure (travel) Unforeseen circumstances a challenge (sickness) Unforeseen circumstances a challenge (weather)	Challenges of workshop delivery
Need for two facilitators Need to balance engagement and excitement Need to ensure volunteers are used sensitively	Considerations for facilitators

Need to manage student emotions/disclosures Needing to practice the workshop delivery Not all students happy to volunteer to speak Students happy to volunteer	
Impact of school day on student engagement	Factors affecting student engagement
Challenges of working in an unfamiliar environment (parking) Challenges of working in an unfamiliar environment (technology) Unfamiliarity of classroom teaching	Hard to work in an unfamiliar environment
Ideas for change (initial session longer) Ideas for change (letting young people sit with their friends) Ideas for changes (material to take home) Ideas for changes (more worksheets) Ideas for changes (using worksheets) More workshops needed	Ideas for improvements
Helpful to have knowledge about students/school in advance Need for multiple school contacts	Need to work with school
School were receptive	Relationship with school
Adapting the content Basing content on clinical experience Ensuring the content is appropriate for young people Ensuring the content is engaging Ensuring the content is evidence based	Skills required for developing the workshops
Sessions were a positive experience for the young people Students engaged well	Student experience
Appropriate for universal population	The workshops were appropriate for everyone
Confusion from students (difference between thoughts and feelings) Difficult to judge student understanding	Uncertainty about if students understood the content
Less sure if a specific activity worked well (controlling your advisor) Less sure if a specific activity worked well (struggle switch video) Less sure if a specific activity worked well (survivor game) Less sure if a specific activity worked well (videos) Specific activity too exciting (disgusting sweets) Specific activity too exciting (quiz prizes) Videos mismatched with language/content of sessions Videos mismatched with language/content of sessions	What didn't work as well
Helpful to normalise Important to have the same facilitators every time	What worked well

Making it relevant to young people was helpful Menti was useful (personal responses) Ongoing adaptations of the workshop helpful Practicing with other children first was helpful Session spacing was okay Specific activity worked well (baby video) Specific activity worked well (facilitators giving personal examples) Specific activity worked well (following your advisor) Specific activity worked well (goals vs values video) Specific activity worked well (mindful colouring) Specific activity worked well (mindful dog) Specific activity worked well (mindful points of contact) Specific activity worked well (quiz) Specific activity worked well (thinking about past and future) Specific activity worked well (values exercise) Specific activity worked well (watermelon/kiwi) Three sessions the right amount Timings generally okay Valuing teacher involvement	