Using an Educational Psychologist Led Psychoeducation Group Skills Intervention to Develop the Emotion Regulation Skills of Further Education Students

A thesis submitted to Cardiff University's School of Psychology

Doctorate in Educational Psychology 2018-2021

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ABSTRACT

Recent legislative changes have prompted a focus on increasing the research base for educational psychologist practice in the post-16 sector. The potential for a distinctive educational psychologist contribution in supporting development of personal skills is highlighted. There is also an increasing emphasis on the need for a preventative focus to promote the positive mental health and wellbeing of children and young people. Research indicates that developing adolescents' emotion regulation skills may have benefits in promoting coping skills which support achievement of the above objectives. Modified versions of the group skills element of dialectical behaviour therapy have been used in the US post-18 context to develop student emotion regulation skills. There is very limited UK research exploring the application of these strategies. Research which has been undertaken has focused on quantitative measures. This mixed methods study explored the impact of an 8-week EP led psychoeducation intervention, based on dialectical behaviour therapy principles and techniques, on ten post-16 students in a further education setting. Small-medium and small effect sizes were recorded on the emotional reactivity and sense of relatedness resiliency scales respectively. The effect size for the sense of mastery scale fell below the 0.2 value considered to be indicative of a small effect size. Qualitative feedback highlighted student perceptions of strategies focusing on cognitive reappraisal, mindfulness, and biopsychosocial techniques as most useful. Valuable insight into student priorities for change and effective methods of supporting development of coping skills were also gained. The above localised perspective may provide some preliminary indication that a short intervention based on dialectical behaviour therapy principles and techniques could positively contribute to post-16 students' development of emotion regulation strategies.

SUMMARY

Part 1: Literature Review

The Literature Review provides a rationale for selection of the research topic. It draws on previous research relating to school-based interventions to develop the emotional skills of children and young people as a basis for further development of the educational psychologist role in the post-16 sector. Research which considers the contribution of emotion regulation skills to emotional wellbeing in adolescents is explored. The potential for a psychoeducation group intervention based on dialectical behaviour therapy principles and techniques to contribute to a preventative focus in the post-16 context is considered.

Part 2: Empirical Paper

The Empirical Paper provides an account of the research undertaken. An overview of relevant research is followed by a rationale for the study and a description of the key research questions. The methodology and ethical issues are then discussed. Results gained from conducting a thematic analysis of qualitative feedback and descriptive analysis of quantitative measures are presented in the form of tables, graphs and text. Finally, a discussion of the integrated findings, strengths and limitations, ideas for future research and the implications for educational psychology practice are discussed.

Part 3: Critical Review

The Critical Review is a reflective and reflexive account of the process of conducting the research from the perspective of the researcher. It aims to consider the impact of the decision-making process underlying the development and implementation of the research on its' progress and outcomes. The implications of these considerations for utilisation of the research findings and development of the research practitioner are highlighted.

ACKNOWLEDGEMENTS

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Glossary

ACCEPTS Acronym; Activities, Contributing, Comparisons, Emotions, Pushing away, Thoughts, Sensations

ADHD Attention deficit hyperactivity disorder

AI Appreciative inquiry

AoC Association of Colleges

CAMHS Child and adolescent mental health service

COMOIRA Constructionist Model of Informed and Reasoned Action

CR Cognitive reappraisal

CYP Children and young people

DBT Dialectical behaviour therapy

DBT WCCL Dialectical behaviour therapy - Ways of Coping Checklist

DEdPsy Doctorate in Educational Psychology

DfE Department for Education

DoH Department of Health

EP Educational psychologist

EPS Educational psychology service

ER Emotion regulation

ES Emotion suppression

FE Further education

MAS Sense of mastery

PATHS Promoting alternative thinking strategies

RCT Randomised controlled trial

REA Emotional reactivity

REL Sense of relatedness

SAFE	Acronym; Sequenced, Active, Focused, Explicit
SEAL	Social and emotional aspects of learning
SEL	Social and emotional learning
SES	Social and emotional skills
TA	Thematic analysis
TEP	Trainee educational psychologist
UK	United Kingdom
US	United States
WG	Welsh Government
WHO	World Health Organisation
WHO-5	World Health Organisation – Five Wellbeing index

PART 1: LITERATURE REVIEW

1. Introduction

Concerns regarding the emotional wellbeing and mental health of children and young people (CYP) in the United Kingdom (UK) have increasingly been highlighted (e.g. Welsh Government [WG], 2018). In the educational context, this has led to emphasis on the importance of a preventative approach which proactively supports CYP in developing the skills which promote emotional wellbeing (WG, 2018). A variety of school based emotional skills development initiatives have been implemented to further this aim (e.g. Werner-Seidler, 2017). However, there is very limited research providing insight into the scope and effectiveness of such initiatives in the UK post-16 sector (Morris & Atkinson, 2018). The term effectiveness is used in this paper to reflect the extent to which an intervention may be considered successful in achieving a desired result. It is often used to convey third person/researcher evaluation of the impact of an intervention. Statistics which indicate that the prevalence of mental health problems in CYP increase with age, reaching their highest levels in late adolescence, provide support for an increased emphasis in this area (NHS Digital, 2017). The potential for a psychoeducation approach to contribute to emotional skills development in a resource efficient manner has been highlighted (Donker et al., 2009). Emotion regulation (ER) has been identified as a key area for focus in relation to emotional skills development (Donnelly et al., 2020). Evidence has suggested that development of ER skills does influence emotional responding (Lewis et al., 2010), and that the use of a range of ER strategies is associated with improved mental health in adolescents (Lougheed & Hollstein, 2012). A number of interventions based on Dialectical Behaviour Therapy (DBT) group skills have been implemented in the US post-18 context to support development of ER skills (e.g. Panepinto et al., 2015). These provide some positive preliminary insights into the potential for short-term interventions focused on targeted skills development in educational contexts. However, there is very limited research exploring the use of interventions based on DBT principles and techniques to support development of ER skills in the UK educational context. The current research study therefore explored the potential for a DBT based group skills psychoeducation intervention, led by a trainee educational psychologist (EP), to develop the ER skills of students in a Welsh college of further education (FE).

1.1. Overview of the Literature Review

This literature review initially focuses on the context for the research which highlights emotional wellbeing and promotion of mental health as key priorities for CYP. This is followed by exploration of the factors which may be argued to distinguish adolescence as a period of vulnerability in terms of emotional wellbeing. The opportunity for EPs to contribute to promotion of emotional wellbeing in the context of legislative change which has extended their role to post-16 settings is then considered. Factors associated with development of effective emotional skills interventions in educational settings are outlined.

Research evaluating interventions aimed at developing emotional skills in post-16 settings in the UK context is very limited. The theoretical basis and development of interventions which have been undertaken in the school-based context are therefore considered to promote understanding of criteria associated with positive outcomes. These also provide an indication of likely areas of experience within current EP professional practice as a basis for application to the post-16 sector.

The concept of ER as an area of focus for emotional skills development and its relevance during the period of adolescence is reviewed. Research which examines the relationship between ER skills, emotional wellbeing and mental health in adolescence is outlined. Evidence relating to strategies which may promote effective self-regulation is then examined. The review progresses to critically evaluate areas of theory and research that address the question as to whether adolescents can learn to regulate their emotions more effectively through a short-term psychoeducation intervention based on DBT principles and techniques delivered in a FE setting.

1.2. Description of Key Sources

A narrative literature review was selected to support a broader and more flexible review of the literature in this area due to the relevance of practice knowledge and evolving concepts at this stage in the development of an intervention for which there was very limited previous research (Machi & McEvoy, 2016). Collins and Fauser (2005) suggested that the narrow focus and prescribed methods of the systematic literature review may, for some review topics, impede comprehensive coverage. In such areas they argued that less explicit methods are the trade-off for broader coverage. Due to the very limited previous research involving the use of DBT principles and techniques to support development of coping skills in UK educational settings, and the wide range of potentially relevant areas of research, it was judged that the benefits of a narrative literature review outweighed its limitations for this research. The limitations

associated with this approach to development of the literature review are discussed further in part 3.

The decision-making criteria used to guide the selection of literature to be included are outlined in Table 1.

Table 1: Literature review inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Factors influencing prioritisation of emotional skills development in the UK post-16 sector.	DBT therapy (all elements).
Context of emotional skills development interventions in the educational sector.	Application of DBT Therapy in clinical adult populations.
Theoretical basis for interventions focused on development of ER skills in adolescent populations.	Emotional skills development interventions in post-16 sector (non-DBT based).
Application of DBT group skills to adolescents in educational settings.	Role of EPs/School Psychologists in post-16 sector (non-UK).
Role of EPs in UK post-16 sector.	

The inclusion criteria (Table 1) aimed to support an overview of emotional skills development interventions in the school-based context to provide an understanding of key factors contributing to their efficacy. The term efficacy is used in this paper to reflect the extent to which an intervention may be considered successful in achieving a desired result. It is often used to convey third person/researcher evaluation of the impact of an intervention. Exploration of considerations which impacted on prioritisation of emotional skills development were also highly relevant to intervention development and design. The latter focused solely on the UK context as it was judged that motivating factors would vary significantly depending on the national context. Investigations interrogating: the concept of ER; links between ER, emotional wellbeing and mental health in adolescence; and strategies to support development of ER;

provided the basis for consideration of an intervention to develop ER skills. Research investigating the potential for a programme based on DBT principles and techniques to develop ER skills supported decision making with regard to intervention design. Evidence which provided insight into the potential EP contribution to development in this area was also prioritised. The impact of national differences in context in this area (e.g. legislative factors) supported the decision to focus solely on the UK context in relation to the EP role.

The exclusion criteria highlighted restrictions to the range of DBT literature included in the review. Research did not include all elements of DBT therapy, focusing solely on the group skills element, which provided the basis for the psychoeducation intervention. Furthermore, analysis which considered the application of DBT group skills to clinical adult populations outside the education sector was not included. Research into ER interventions in post-16 populations focused only on those based on DBT principles and techniques. A review of the range of ER interventions undertaken in the post-16 sector was not undertaken as this was judged to be impractical in terms of the scope and timescales of the research.

Key sources for the development of this literature review included a search of the major electronic databases available online including PsychINFO (1806 – 2020), Web of Knowledge, ASSIA and Scopus. The following search terms were used: emotions; self-regulation, emotion(al) regulation; developmental processes; dialectical behaviour therapy group skills; intervention, emotional literacy; psychoeducation; further education; post-16; college; educational settings; adolescents; evaluation.

A number of research journals of particular relevance to educational psychology were searched using the above terms. These journals included: Educational Psychology in Practice; Educational Psychology and Educational Psychology Review and Educational & Child Psychology. Finally, searches using Google and Google Scholar which combined the terms outlined were used.

1.3. The Context for Research

This section focuses on the context for the research which highlights emotional wellbeing and promotion of mental health as key priorities for CYP. This is followed by exploration of the factors which may be argued to distinguish adolescence as a period of vulnerability in terms of emotional wellbeing. The opportunity for EPs to contribute to promotion of emotional wellbeing in the context of legislative change which has extended their role to post-16 settings is then considered. Factors associated with development of effective emotional skills interventions in educational settings are outlined.

1.3.1. Preventative Focus for Emotional Health

The mental health and wellbeing of young people aged 16-25 has received increasing prominence in recent times (Atkinson & Martin, 2018). According to the World Health Organisation (WHO; 2019) three quarters of mental health problems begin by an individual's mid-twenties. Evidence suggests that the number of young adults experiencing mental health difficulties, such as anxiety, depression, self-harm and suicidal thoughts or attempts, is increasing (Mental Health Foundation, 2016). However, this argument is difficult to corroborate due to changes in methods of data collection over time. The Child and Adolescent Mental Health Surveys (DoH, 2005), covering England, Scotland, and Wales, found that 10% of CYP aged 5 to 16 years had a clinically diagnosable mental health problem in 2004. NHS Digital (2017) reported that one in eight (12.8%) of 5 to 19 year olds in England had at least one mental disorder when assessed in 2017. However, differences in geographical areas of coverage and age ranges preclude direct comparison of this data. NHS Digital (2017) found that rates of mental disorders increased with age. For example, 5.5% of 2 to 4 year old children experienced a mental disorder compared to 16.9% of 17 to 19 year olds. However, the need for caution in interpretation of these findings is highlighted in relation to difference in data collection methods across age groups (for example, teacher reports are only available for 5 to 16 year olds).

Rothi and Leavey (2006) reviewed research on the mental health help-seeking behaviours of young people. The fact that their needs only become recognised when their mental health difficulties were serious was highlighted as a cause for concern due to the missed opportunity for preventative strategies. Public Health England (2015) reported that around 70% of children and adolescents in England who experienced mental health problems had not had appropriate interventions at a sufficiently early age. The issue of providing support for the "missing middle" (WG, 2018, p.76), described as those CYP who need support but do not meet the threshold for specialist services, was highlighted by the 'Mind over matter' report (WG, 2018). The report summarised the views articulated by stakeholders that "emotional health programmes .. should be viewed as a form of promotion, prevention and early intervention which could reduce pressure on Child and Adolescent Mental Health Services (CAMHS), reduce specific mental health problems and increase academic achievement" (WG, 2018 p.20). Fazel et al. (2014) highlighted the potential for mental health support in educational settings to contribute to improvements in mental health and educational attainment for CYP.

1.3.2. Adolescence as a period of 'emotional vulnerability'

WHO (2019) highlighted the combined impact of the physical, neurological, psychological and social changes which take place in adolescence on health and behaviour. These changes are argued to drive the documented increase with age in physical and mental health problems, and have important implications for present and future health and development. Spear (2000) described the significant increase in reports of depressed mood and affective disturbance in the period of adolescence as compared to childhood, whilst noting that the approximately 20% incidence of clinical psychopathology in adolescents was similar to the rates observed in adults. This provided support for the suggestion that adolescence and early adulthood is a period where mental health problems are likely to emerge (WHO, 2019). Post-16 young people experience significant changes in the transition to adulthood. These include moving to FE, employment, or training; developing increasingly independent relationships; moving towards independent living; and the development of self-identity, aspirations, beliefs, and values (YoungMinds, 2006). Peters (2012) characterised adolescence as a period of vulnerability during which potentially long-term emotional difficulties may develop. Atkinson and Martin (2018) described growing concern over the number of young people in FE who experience mental health problems. A survey by the Association of Colleges (AoC, 2017) found that all respondents reported having students on roll experiencing anxiety and depression, with difficulties attributed to a variety of factors including social media, exams, financial stress, drugs and alcohol and home circumstances. In addition, 85% of respondents reported an increase in students with disclosed mental health issues in the past 3 years. However, this survey was only undertaken with English colleges and rates of response varied considerably between regions. Colleges who responded may have shared characteristics (e.g. a greater emphasis on student mental health) which limited the generalisability of findings. The most recent AoC (2020) survey confirmed the above trends and further highlighted that 85% of colleges reported a significant number of students with mental health difficulties who do not have a diagnosed mental health condition.

1.3.3. Educational psychology practice

In the UK context, enactment of the Children and Families Act in England in 2014 and revision of the Special Educational Needs and Disability Code of Practice (Department of Education (DfE) and Department of Health (DoH), 2015) to include young people up to the age of 25

years, highlighted the role of educational psychology services (EPSs) in provision of services for the post-16 sector. The new provisions of the Additional Learning Needs and Education Tribunal (Wales) Act 2018 (DfES, 2018) resulted in similar changes in the Welsh context. Morris and Atkinson (2018) highlighted the implications of this change for educational psychology practice. This included the need to develop an understanding of the social, emotional and learning needs of post-16 young people and existing support structures across post-school settings. They emphasised the potential for a distinctive EP contribution in terms of development of personal skills, such as promotion of a positive self-identity, self-awareness, and resilience. Morris and Atkinson (2018) suggested that promotion of such skills in the school sector is embedded in current EP practice. Broadening the scope of application of current practice to the post-school population requires adaptation of relevant existing practice. This has increased focus on the paucity of applied educational psychology research with the 16-25 age group and the opportunities for development of provision in this sector (Keegan & Murphy, 2018). Atkinson et al. (2015) emphasised the need for EPs to prove the added value of work undertaken, particularly in the context of commissioned services. The priority of student retention is highlighted in this regard as a key marker of success across the FE sector (Allen, 2012).

Warwick et al. (2008) found that FE staff valued the existence of mental health support for students and that college-based support may include counselling, learning mentors and support assistants, personal tutors, exam access arrangements and information for students on internal and external support services. They reported that counselling support within FE settings has been found to facilitate positive outcomes in relation to student retention, achievement, and experience, and in the development of employability skills. The existence of college-wide mental health initiatives (e.g. health and wellbeing sessions, student groups and activities) is described as complementing more targeted efforts. Fallon et al. (2010) argued that EPs are well positioned to work alongside other professionals in the promotion of positive mental health and wellbeing for young people through provision of consultation, training, research and using skills in therapeutic intervention.

Morris and Atkinson (2018) conducted an appreciative enquiry (AI) to explore how EP practice could be extended to support the mental health of young people in FE. It was envisaged that development of the EP role in supporting social, emotional, and mental health may be most effectively achieved through a link person or team within colleges. Discussion focused heavily on building resilience and supporting young people experiencing anxiety. Student retention

was raised as a key issue related to these priorities. The value of group work in supporting students experiencing low levels of anxiety was highlighted. The importance of extending EP support in a way that complemented or developed existing support structures was recognised. One of the four agreed actions resulting from the 'dream' phase of the AI was to "offer a piece of therapeutic group work in one local FE college ... where the need for further support had been identified" (Morris & Atkinson, 2018, p.303). Morris and Atkinson's (2018) findings are limited in that the AI involved six EP participants from one EPS. Therefore, the findings are small scale and exploratory, with limited generalisability. The researchers' role as facilitator for the focus groups which were used as the basis for the AI is likely to have impacted on the content and progress of discussion. Thematic analysis of focus group discussion may result in "an account based on interpretations that are likely to be rooted in the authors' own experiences and expectations" (Morris & Atkinson, 2018, p.307). However, they proposed tentative possibilities for extending EP mental health support to FE settings.

1.3.4. Factors influencing approaches to emotion skills development in educational settings

Frederickson and Cline (2015) highlighted the influence of national policy on provision in education settings in this area. They used the example of the Social and Emotional Aspects of Learning (SEAL) programme in England to illustrate the impact. Lendrum et al. (2013) estimated that the SEAL programme, a national strategy, was used in 90% of primary and 70% of secondary schools by 2010. Following a change of government and decentralisation of education policy, the requirement to implement such an approach was replaced by less explicit expectations regarding the promotion of mental health and wellbeing (Frederickson & Cline, 2015). Honess and Hunter (2014) reviewed teachers' perceptions of the Promoting Alternative Thinking Strategies (PATHS) curriculum. The PATHS curriculum is a school-wide programme designed to impact on the social and emotional learning (SEL) of children aged 4-11 years. Feedback reflected teacher frustration regarding lack of a consistent and rigorous approach to implementation in this area. Lack of time for embedding interventions before they were replaced by "the same things being regurgitated in a slightly different packaging" (Honess & Hunter, 2014, p.57) were experienced as barriers to more significant progress.

Weare and Nind (2011) suggested that targeted interventions to promote positive mental health and wellbeing should be implemented within the context of systemic approaches. Warwick et

al. (2008) highlighted the importance of a clear strategy and policy reflecting the roles and responsibilities of all staff in relation to mental health and wellbeing as an important aspect of effective intervention planning. This may impact significantly on the extent to which interventions are implemented with clarity, intensity, and fidelity (Weare & Nind, 2011).

Rothi and Leavey (2006) highlighted the perceived stigma associated with accessing support for mental health or emotional difficulties as a significant barrier to help seeking for many young people. This included the stigma students attach to the role of professionals, emphasising the importance of professionals clarifying their role with students (Peters, 2012). Apland et al. (2017) found that CYP tended to have stereotypical perceptions of mental health and limited awareness of the support available. Services were found to be most effective when they were participatory, and development of meaningful and supportive relationships with professionals resulted in a sense of autonomy and independence.

2. School-Based Emotional Skills Development

Research evaluating interventions aimed at developing emotional skills in post-16 settings in the UK context is very limited (Morris & Atkinson, 2018). The theoretical basis and development of interventions which have been undertaken in the school-based context are therefore considered in the following section to promote understanding of criteria associated with positive outcomes. They also provide an indication of areas of experience within current EP professional practice as a basis for application to the post-16 sector. Morris and Atkinson (2018) emphasised the importance of consideration of initiatives focused on development of emotional skills in the school-based sector to support adaptation of existing EP practice to the post-school population. The following sections provide an overview of: terminology and theoretical perspectives which have informed development of provision in the school sector; potential benefits associated with the school role in this area; and criteria associated with positive outcomes.

2.1. Brief overview of relevant terminology and theoretical perspectives

2.1.1. What are emotions?

Gendron (2010) highlighted longstanding issues with attempts to scientifically define the term 'emotion'. This resulted in the argument that the term 'emotion' must be "further specified based on discrete emotion categories" (Gendron, 2010, p.370) as the working definitions of current prominent emotion theorists and researchers do not provide evidence for the existence of a consensus definition. Lench and Carpenter (2018) described the difficulties associated with the scientific study of emotion, but also the significant potential real-world benefits which may be realised through the application of rigorous methods of research in this area. They suggested that such research may impact on whether or not we succeed in attaining our goals, our relationships with others, wellbeing, and life satisfaction.

Moors (2010) outlined the components of emotions as consisting of: a cognitive component; a feeling component (emotional experience); a motivational component (action tendencies or readiness); a somatic component (central and peripheral physiological experiences); and a motor component (expressive behaviour e.g. fight, flight, facial expressions). Koole (2010) described the multiple components of emotions as consisting of a reasonably coherent cluster of positive or negative behavioural and physiological responses which are accompanied by specific thoughts and feelings. Classic theories of emotion associate each emotion (e.g. anger,

sadness) with a discrete pattern of behaviour, physiology, thoughts, and feelings. However, more recent evidence (e.g. Mauss & Robinson, 2009) indicated that emotional responding may, in fact, be organised in terms of a small number of dimensions including valence (positive or negative emotion), arousal and approach-avoidance. Russell (2003) suggested that 'core affect', described as basic states of feeling good or bad, energised, or enervated, is at the heart of all emotional states. Skinner and Zimmer-Gembeck (2007) described qualitative differences which may occur in people's primary emotional response as compared to their secondary emotional response. They suggested that the role of ER may provide a basis for understanding these changes.

2.1.2. Functions of emotions

Lench and Carpenter (2018) described traditional views of emotions as being associated with trouble and irrationality, emphasising their capacity to overwhelm us and cause us to behave in ways that cause harm to ourselves and others. They argued that the positive functions of emotions are often overlooked. Linehan (1993) summarised the role of emotions in terms of their capacity for: motivating and organising us for action; communicating to and influencing others; and communicating to ourselves. Functional theories of emotion are described by Lench and Carpenter (2018) as sharing the assumption that processes associated with natural selection underlie the functions of emotions. Emotions are elicited by particular events and situations that represented adaptive problems during evolutionary history. They help us organise responses that resolve the problem event or situation.

Cornelius (2000) proposed that theories of emotion can be considered in relation to four over-arching perspectives. The Darwinian Perspective considered emotions as evolved phenomena with important survival functions that have been selected for as they address certain problems we have faced as a species. The Jamesian Perspective also considered emotions as responses of individuals to events in their environment which help them to survive. It described bodily changes as following directly from perception of an event and providing the essential basis for the associated feelings. This perspective argued that it is impossible to have emotions without bodily changes and that bodily changes come first. The Darwinian and Jamesian perspectives provided the basis for more recent theories which regard emotions as 'action tendencies' (e.g. Fridja & Parrott, 2011). The Cognitive Perspective is described as the current dominant approach. This assertion is partially justified by the fact that it has been incorporated into each of the other perspectives. The Cognitive Perspective argued that thought and emotion are

inseparable and that emotion is reliant on 'appraisal', i.e. the process by which events in the environment are judged as good or bad for us. The newest perspective, which is most clearly distinguished from the other three, is the Social Constructivist Perspective. This perspective rejected the view of emotions as evolved biological adaptations, considering them as "cultural products that owe their meaning and coherence to learned social rules" (Cornelius, 2000, p.5). The function of emotions in relation to their social accomplishments is considered paramount.

2.1.3. Emotional competence and emotional intelligence

The concept of emotional intelligence was initially introduced by Salovey and Mayer (1990) who described it as "a set of skills hypothesised to contribute to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feelings to motivate, plan, and achieve in one's life" (p.185). Frederickson and Cline (2015) distinguished between ability and trait models of emotional intelligence. Ability models were developed as a response to criticism regarding the overlap between early definitions of emotional intelligence and commonly identified dimensions of social skills. They focused on emotional contributions to intelligence and separate these processes from the collection of social skills and behavioural predispositions associated with the original trait models. Salovey and Sluyter (1997) developed a cognitive model focused on four key areas:

- Reflective regulation of emotions to promote emotional and intellectual growth
- Understanding and analysing emotions
- Emotional facilitation of thinking
- Perception, appraisal, and expression of emotion

Emotional intelligence is conceptualised as a cognitive ability in the ability models, but as a personality trait in the trait models. Petrides et al. (2004a) listed the facets of trait emotional intelligence on which there is general consensus and highlighted issues associated with measurement for both models. They suggested emotional self-efficacy as a more accurate description of the area than emotional intelligence. This related to the ongoing debate regarding appropriate terminology with emotional intelligence, emotional literacy and emotional competence being widely discussed (Frederickson & Cline, 2015). Frederickson and Cline (2015) described the tendency for programmes aimed at schools to use the term emotional literacy whether developed in the US and based on an ability model or developed in the UK and based on the broader trait approach. Weare and Gray (2003) advocated for use of the term emotional competence as they suggested that emotional literacy and emotional intelligence

were, in fact, both defined in terms of competencies. In addition, the use of competence emphasised the cognitive, affective, and behavioural components that are required for success, which is helpful in an educational context.

2.1.4. Emotional and social competence and wellbeing

Emotional competence can therefore be considered in terms of broader trait or more focused ability models. Frederickson and Cline (2015) clarified their conception of the term social competence as including cognitive (social information processing), behavioural (social interaction) and outcomes of the behaviour for self and others (social adjustment) aspects. They emphasised the integral role of emotion in each of these aspects. Martin and Huebner (2007) presented a model of psychological wellbeing among US adolescents which included positive affect, negative affect, and life satisfaction.

The above areas covered a wide range of personal and interpersonal aspects which could "readily be coherently aligned" (Frederickson & Cline, 2015, p.489). Emotional competence involves emotional predispositions which align with psychological wellbeing (trait happiness and trait optimism) and self-perceived abilities that are closely linked to aspects of social competence. Recognition of the complementary nature of the three areas has resulted in a focus in education settings on social and emotional Learning (SEL) (e.g. Wolpert et al., 2013; Weare & Nind, 2011).

2.2. Overview of the school role

Weare and Nind (2011) highlighted the importance of the school for mental health, and the opportunities it provided for interventions. They reported on the wide range of school mental health interventions in operation across the world, some of which have been evaluated. These go under many names: mental health, SEL, emotional literacy, emotional intelligence, resilience, life-skills, and character education. Weare and Nind (2011) emphasised the increasing focus on such interventions in the previous two decades.

Teaching and learning in schools have strong social, emotional, and academic components (Pellitteri & Smith, 2007). Bullock et al. (2015) highlighted school-based SEL as having significant potential for positively impacting the mental health of large numbers of CYP. Extensive developmental research indicated that building social-emotional competence is associated with greater wellbeing and better school performance (Durlak et al., 2011). Elias et al (1997) highlighted the process of acquiring core competencies to recognise and manage

emotions as a key aspect of SEL. Fazel et al. (2014) distinguished between universal interventions which target whole school, selective interventions which target sub-groups who may be at risk of developing emotional problems and indicated interventions which target young people who are already exhibiting clinical symptoms. Figure 1 illustrates the application of this concept to one example of a SEL programme, the Social and Emotional Aspects of Learning (SEAL) intervention, which was previously widely adopted in schools throughout the UK.
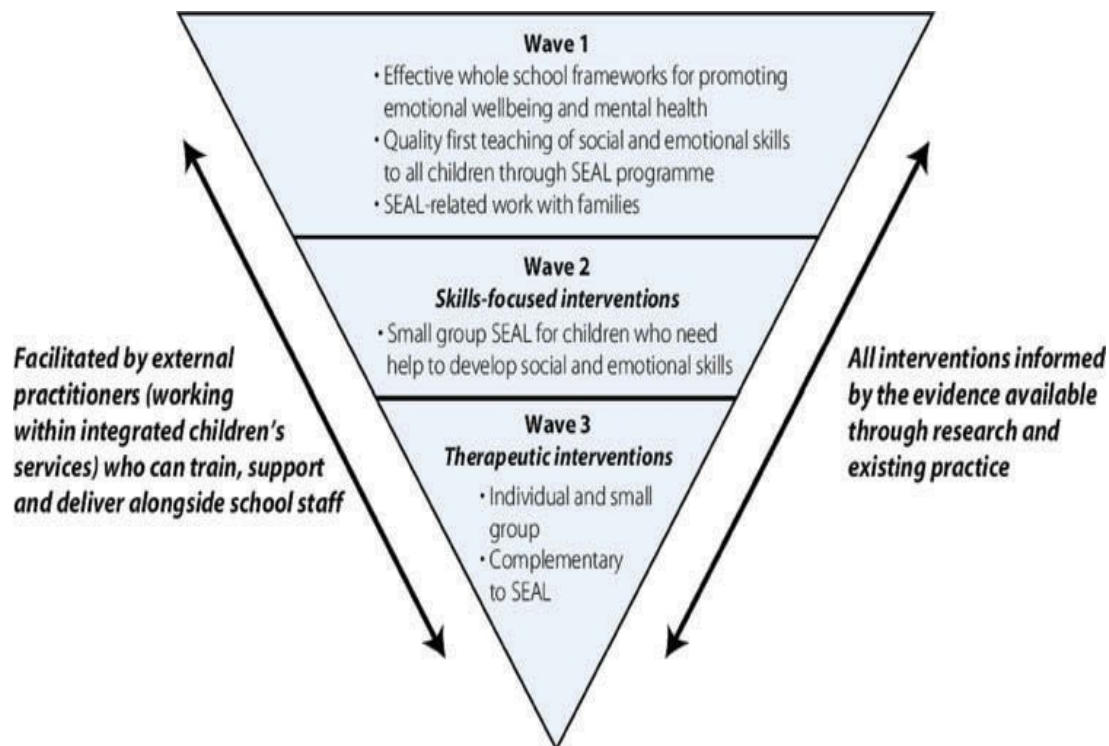
Figure 1: The waves model of prevention and intervention for social and emotional aspects of learning (SEAL)/ targeted mental health in schools (TaMHS), (Wolpert et al., 2013).

Werner-Seidler et al. (2017) highlighted the school environment as an appropriate setting for accessing young people, where preventative skills against future problems can be taught as a universal provision, and 'at risk' children can be identified for more specialised intervention. They emphasised that whilst there is widespread agreement in relation to the above, there is continuing debate regarding how this should be achieved and by whom. Werner-Seidler's (2017) comprehensive evaluation of randomised-controlled trials of psychological programmes for children and adolescents in school settings, found that a large proportion of universal interventions were designed to prevent depression and/or anxiety. Flynn et al. (2018) emphasised that, whilst small beneficial effects have been found for such programmes, they do

not capture the wide range of emotions and challenges experienced by young people. It is argued that universal programmes need to focus on ways to help young people manage their emotions and build resilience in response to daily challenges and emotional crises.

The above approaches to SEL are primarily focused on development of individual competencies and skills, based on dominant and well-recognised psychological theories. Donnelly et al. (2020) suggested that this is reflective of the position in the UK prior to the development of divergent approaches across the four UK home nations. This related to Frederickson and Cline's (2015) conception of the less explicit expectations regarding the promotion of mental health and wellbeing in the UK following decentralisation. Donnelly et al. (2020) provided a comparative analysis of secondary education policies on social and emotional skills (SES) development across the four different education systems. They considered a broader definition of SES which incorporated: competencies (drawn mainly from a psychological evidence base); morals/ethics (highlighting the key values that underpin SES); and identity/capital (focusing on the resources that are available to CYP in developing SES). Differences in relative emphasis on these areas was found to be reflected in policy variation across the four home nations. However, schools in all home nations continued to focus on an individual competencies approach to SES, highlighting development of skills in CYP (e.g. resilience and self-regulation) as a key priority. Donnelly et al. (2020) reported that Scotland and Wales have developed new education curricula that integrate SES across all areas of learning, whereas the approach of England and Northern Ireland tended to focus on 'stand-alone' policies. The potential impact of such divergent approaches is likely to emerge over time. It is also anticipated that development in this area will be affected by the educational and wider impact associated with Covid-19 disruption. School staff reported a preference for either developing SES approaches themselves or alongside a partner. Donnelly et al.'s (2020) research provided a useful basis for understanding approaches to SES across the four home nations. However, it should be noted that completion of the surveys, which were a key element of the research methodology, was undertaken by Headteachers or a member of staff responsible for SES development. The potential for social desirability bias or demand characteristics to influence their responses is therefore highlighted. Qualitative interviews were conducted to develop deeper understanding of key feedback. However, these were limited to eight interviews, and again focused on Headteachers or staff responsible for SES development. The feedback gained could not therefore be considered as representative of the views of the whole school staff.

2.3. Criteria associated with positive outcomes

Durlak et al. (2011) conducted a meta-analysis of 213 school-based universal SEL programmes in the US, involving children in kindergarten through to high school. Research showed that SEL programmes improved academic performance, social and emotional skills, attitudes, classroom behaviours and reduced conduct problems. They found two key variables which affected the degree of positive student outcomes. Firstly, adherence to four recommended practices identified by the acronym SAFE in order to develop students' skills. These focused on whether the program:

- Used a connected and coordinated set of activities to achieved their objectives (Sequenced).
- Used active forms of learning to help youth learn new skills (Active).
- Have at least one component devoted to developing personal or social skills (Focused).
- Target specific SEL skills rather than targeting skills or positive development in general (Explicit).

Secondly, implementation problems had a negative influence on program outcomes, suggesting that beneficial programs must be both well designed and well conducted. Durlak et al. (2011) provided evidence for the composite effect of SAFE practices on positive outcomes but did not assess the impact of each factor separately. Individual factors may have assumed a different level of importance depending on contextual considerations, e.g. developmental stage. Furthermore, there may be other aspects of skill development such as incorporation of strategies to encourage generalisation of skills that have a significant impact.

Weare and Nind (2011) analysed 52 systematic reviews and meta-analyses of mental health interventions in schools. Interventions included: teaching skills; focusing on positive mental health; balancing universal and targeted approaches; starting early with the youngest children and continuing with older ones; operating for a lengthy period of time and embedding work within a whole-school approach; improving school ethos, teacher education, liaison with parents, parenting education, community involvement and coordinated work with outside agencies. They found that interventions were only effective if they were completely and accurately implemented: this applied particularly to whole-school interventions which could be ineffective if not implemented with clarity, intensity, and fidelity. The effects associated with interventions were variable and could not always be relied on. The importance of skills, and, in particular, work using Cognitive Behavioural Therapy (CBT) approaches to any

effective mental health intervention, was strongly supported. The use of holistic, educative, and empowering theories and interactive pedagogical methods was endorsed by many of the reviews. Advice on implementation emphasised the importance of schools only undertaking interventions that fitted their context and which they could easily implement with fidelity and rigour. Many of the early interventions used specialist staff to deliver small-scale demonstration programmes involving small samples, often with short term evaluation. Shucksmith et al. (2007) concluded that this was particularly appropriate for initial introduction of interventions. Adi et al. (2007) suggested that using specialist staff was effective in short-term stress and coping interventions. Rothi and Leavey (2006) emphasised the need for provision of training and support for school staff in effective implementation of such interventions by EPs and CAMHS.

3. Post-16 Emotional Skills Development

WG (2018) emphasis on the missing middle in their 'Mind over matter' report highlighted the importance of developing preventative strategies to promote positive mental health and wellbeing for CYP. Keegan and Murphy (2018) indicated that the paucity of applied educational psychology research with the 16-25 age group provided important opportunities for development of provision in this sector. Morris and Atkinson's (2018) appreciative enquiry emphasised building resilience and supporting young people experiencing anxiety as key areas for focus in development of the EP role in the FE sector.

The review of school-based practice in section 2, highlighted an ongoing focus on development of individual emotional competencies, based on psychological theories, in approaches to SEL (Donnelly et al., 2020). This was in the context of an increasing emphasis on wider systemic factors (morals/ethics and identity/capital) included in Donnelly et al.'s (2020) conception of SES, and reflected in key policy documents for all four of the home nations. Key criteria associated with positive outcomes for SEL interventions in the school-based sector, provided a basis for consideration of priorities for such interventions in the post-16 context. The importance of adherence to SAFE practices (Durlak et al., 2011) and emphasis on complete and accurate implementation which fitted with the school context (e.g. Durlak et al., 2011; Weare & Nind, 2011) were highlighted.

Areas of practice which required more significant adaptation in application to the post-16 context were also indicated. For example, it may be argued that modification of the concept of the three levels of intervention (Fazel et al., 2014) would be required due to issues relating to student autonomy and independent decision making in this sector. The appropriateness and practicality of universal intervention in this context may be questioned. Furthermore, applicability of school-based experience to the FE sector may be limited by historical and contextual differences in approach to SES. In the secondary school sector, responses from Wales and Scotland reflected school staff confidence in their own experience of planning, implementing and evaluating SES interventions (Donnelly et al., 2020). In the FE sector, an Association of Colleges survey (AoC, 2020) found that provision of staff training and resources was the most frequently requested type of support in relation to the issue of mental health and wellbeing. This may be considered to reflect a lower level of confidence of FE staff in supporting student needs in this area. The limited historic involvement of EPs in the post-16

sector and the associated paucity of applied educational psychology research supports the need for exploration of the experiences and views of staff working in FE (Keegan & Murphy, 2018). This would inform appropriate development of EP practice and service delivery (Keegan & Murphy, 2018).

Development of individual emotional competencies is highlighted in the school-based sector as a key priority for SEL. It is notable that terminology associated with development of SEL frequently includes reference to ER. For example, ER is included in Salovey and Meyer's (1990) description of emotional intelligence and as one of the four key components in Salovey and Sluyter's (1997) cognitive 'ability' model of emotional intelligence. Lendrum et al. (2013) highlighted "self-regulation (managing feelings)" (p.159), as one of the five key domains for focus in SEL programmes in the school sector. Donnelly et al. (2020) referenced ER as a core emotional competency for all four home nations. Supporting CYP in acquiring behavioural and emotional competencies was indicated as a key focus for SES development. Koole (2010) emphasised the overlap between references to specific emotions, moods, and stress, and communicated a general acceptance that the same processes and principles are involved in management of all such emotionally charged states.

The following sections involve an exploration of the concept of ER and evidence relating to its primary functions. Developmental considerations which may prioritise adolescence as a period of particular focus in terms of ER and links between ER and adolescent mental health are then explored. Evidence relating to strategies which may promote effective self-regulation is examined. This provides the basis for consideration of an intervention to develop ER skills to promote emotional wellbeing and mental health in the post-16 sector.

3.1. What is ER?

Thompson (1994) defined ER as consisting of "the intrinsic and extrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (p.27-28). Variability in emotional reactions is described in relation to intensity, persistence, modulation, onset and rise time, range, and recovery from emotional responses. Lewis et al. (2010) highlighted the distinction between emotional reactivity as "the initial strength of emotional activation to a stimulus" and ER as "the processes that modulate emotional responses" (p.86). Zeman et al. (2006) described

regulation of emotion as involving the management and organization of diverse systems and components, including internal systems (i.e., neurophysiological, cognitive, and subjective evaluations), behavioural components (i.e., facial and behavioural actions), and external/social components (i.e., cultural values, social contextual significance, personal motivation/goals). Koole (2010) emphasised the potential for individuals to exert control over almost all aspects of emotional processing, including how emotion directs attention, the cognitive appraisals that shape emotional experiences and the physiological consequences of emotion. These processes are considered to be the fundamental basis of ER.

Koole (2010) stated that ER processes can increase, decrease, or maintain positive and negative emotions which may, or may not, bring them closer to the emotional state that is desired. Thompson (1994) highlighted the need to define what is meant by optimal ER. This may be considered in terms of outcomes (the extent to which the individuals emotional control allows them to achieve their life goals) or in terms of process (the effective enlistment of ER strategies to achieve quality of emotion, regardless of behavioural goals). Koole (2010) concluded that optimal ER may be better defined in relation to the demands of specific situations and the goals of the individual, rather than being considered as a global construct. Whilst there is ongoing debate regarding definition of the construct and claims that ER deficits contribute to anxiety, Lewis et al. (2003) argued that "ER may be nothing more than a descriptive label for a broad range of behaviours and strategies" (p.88), which are still worthwhile objects of study.

3.2. Functions of ER

Verzeletti et al. (2016) argued that ER is a central aspect of people's affective functioning which has a key influence on wellbeing. They highlighted the role of inappropriate regulation in contributing to longer or more severe negative affect, interpersonal difficulties, behavioural and health problems, and lower resilience to stressful events.

There is a significant body of research focused on the potential benefits of increasing individual control of ER where this supports individuals in achieving their life goals (e.g. Verzeletti et al., 2016; Silk et al., 2013; Koole, 2010). However, Lench and Carpenter (2018) suggested that the detrimental impact of emotions, particularly negative emotions, has been over-emphasised and highlighted the benefits of varied emotional experiences. Ein-Dor and Hirschberger (2018) argued that current research in ER is focused on achieving widely accepted life aspirations such as feeling good and enjoying positive relationships with others. They contended that the

primary function of the emotion system is to keep us safe and alive, and that this emphasis on adaptiveness should be distinguished from feelings of positivity. They argued, for example, that the emotional dysregulation experienced by some individuals, primarily due to insecure attachment, may have a highly adaptive function in increasing safety at the group level. This may be considered in terms of differences in perspective between biological and social constructivist theories of emotion. Ein-Dor and Hirschberger's (2018) may be argued to stem from a Darwinian Perspective which considers emotions to be evolved phenomena with important survival functions. The Social Constructivist Perspective highlighted emotions as cultural products dependent on learned cultural rules. Ein-Dor and Hirschberger (2018) emphasised the need to clearly separate an emphasis on personal desires and ideologies from impartial observation of the social world.

3.3. Adolescence and development of ER

Silk et al. (2003) argued that adolescence is a highly significant period in terms of ER due to the novel experiences of emotional arousal associated with the physical, psychological and social changes experienced during this life stage. Larson and Lampman-Petraitis (1989) found that adolescents experience more frequent and intense emotions than younger or older individuals. Verzeletti et al. (2016) described adolescence as a period when prefrontal cortical regions that support regulatory functions are not yet fully developed, whereas motivational reward cues are particularly salient, leading to greater risk of suboptimal choices due to weaker ER and less effective goal-oriented behaviour. Zeman et al. (2006) suggested that adolescence is a crucial period in the development and maturation of self-regulation patterns, where ER processes and strategies are affected by both biological maturation and environmental factors. They are hypothesised to play a key role in the development and maintenance of psychopathology. However, Thompson (1994) cautioned against regarding the development of ER as a homogeneous growth process, describing it as a "conceptual rubric that encompasses a variety of strategies, each with likely different developmental timetables and experiential origins" (p.41). This highlighted the fact that individuals are likely to vary in their knowledge of the need for ER in specific circumstances, their awareness of alternative strategies and their flexibility in applying different strategies to achieve emotion control. Individual differences are therefore an important factor for consideration when designing effective intervention approaches.

3.4. ER and adolescent mental health

Lougheed and Hollenstein (2012) found that use of a range of ER strategies rather than singular adaptive strategies are associated with lower levels of depression, generalised anxiety, and social anxiety in adolescents. They suggested that a limited ER repertoire in adolescence may be associated with internalizing problems and highlighted the importance of having a range of ER strategies to use. Silk et al. (2003) discussed the role of ER in diverse forms of adolescent psychopathology. They suggested that internalising disorders (e.g. depression) may be associated with inability to down-regulate negative emotions and/or difficulty in up-regulating or maintaining positive emotions, whilst externalising disorders are characterised by behaviour dysregulation.

McLaughlin et al (2011) found that emotion dysregulation predicted increases in anxiety symptoms, aggressive behaviour, and eating pathology but did not predict depressive symptoms in a sample of 1065 American school students aged 11-14 years. In contrast, none of the four types of psychopathology predicted increases in emotion dysregulation. This is argued to provide the first longitudinal evidence of the role of emotion dysregulation as a risk factor for the development of adolescent psychopathology. McLaughlin et al. (2011) acknowledged the use of self-report measures of ER as a limitation of the study. Biases including a tendency to report typical responses to emotional experiences, to remember the most recent experiences or the experiences associated with the most intense emotions, may influence reports of ER. Increasingly, measures that do not rely on self-report, such as psychophysiological and observational measures, are being used to increase the validity of assessments of emotion and ER (Silk et al., 2003).

Gullone and Taff (2012) found that adolescents' emotional suppression (ES) showed positive associations with depression, whereas cognitive restructuring (CR) was negatively correlated with it. This highlighted the importance of consideration of the evidence base for the effectiveness of different ER strategies and the contexts in which their application may be appropriate.

3.5. Strategies to support ER

3.5.1. Overview

There is ongoing debate regarding the construct of ER and evidence to support its causal role in the aetiology of psychopathology. Lewis et al. (2010) concluded that there is an impressive body of evidence to indicate that ER strategies influence emotional responding, and that anxious individuals select different ER strategies as compared to non-anxious individuals. Eisenberg et al. (2006) provided evidence from studies involving a range of cultures which indicated that the ability to consciously regulate emotion is positively related to measures of social competence and peer group acceptance. They suggested that this is likely to involve the strong connections between the 'emotional brain' (governed by the set of structures in the limbic system of the brain) and the parts of the brain responsible for executive functions or 'top-down' control (pre-frontal cortex and anterior cingulate gyrus). Blakemore and Frith (2005) highlighted the role of these connections in managing emotions, such as anxiety, fear, and stress, with their associated impact on attention, impulse control and delay of gratification which are essential components of the learning process.

The following sections explore research relating to the development of ER strategies and evidence for their efficacy in different contexts. These focus on the use of voluntary strategies and involuntary responses, strategies relating to the process model of ER (Gross, 1998) and classification of ER strategies. This exploration is used as a basis for consideration of an appropriate group psychoeducation intervention to develop the ER skills of post-16 students.

3.5.2. Voluntary strategies and involuntary responses

Adolescent studies are consistent with those focusing on childhood in indicating that the use of active strategies such as support seeking, problem solving and cognitive restructuring is associated with better adjustment than avoidance or rumination (Compas et al., 1999). Connor-Smith et al. (2000) classified adolescent strategies for regulating emotion into voluntary (controlled) responses which involved volitional strategies, and involuntary (automatic) responses which may be conscious or unconscious, but are experienced by the individual as intrusive or beyond their control. Voluntary strategies were distinguished as either involving voluntary engagement with a stressor or passive disengagement. Voluntary engagement was further divided into primary control which involved engaging to modify negative aspects of the situation or secondary control where an individual aimed to maximise their 'fit' to this situation, e.g. through distraction or cognitive restructuring. It was found that primary and

secondary control strategies were associated with fewer depressive symptoms and less aggression, whereas involuntary responses and disengaged strategies were associated with higher depressive symptoms and aggression.

Silk et al. (2003) highlighted a key limitation of this research in terms of ecological validity; participant responses to stressful situations were reported either in relation to hypothetical situations or real experiences following a time-elapse. It is argued that in this context adolescents may report what they should do rather than actual responses. Silk et al. (2003) used an experience sampling method which involved participants recording of emotional states and responses as they unfolded in everyday life. Findings provided support for the argument that adolescents who have problems regulating their emotions are more vulnerable to internalising and externalising problems. However, the research is correlational and therefore does not indicate whether problems in ER precede or are a consequence of psychopathology. The study did not support Connor-Smith et al.'s (2000) finding that primary and secondary control strategies would be most effective in regulating negative emotion. Silk et al. (2003) referred to Thurber and Weisz (1997) who suggested that primary control strategies are more effective in controllable situations. Therefore, use of these strategies may have been beneficial in response to some stressful situations. This effect may have been cancelled out by their ineffectiveness in uncontrollable situations. The validity of this explanation would require further research to provide information on the controllability of stressful situations encountered. The most influential ER strategies were disengagement (e.g. using denial, avoidance, escape, or wishful thinking) and involuntary engagement (e.g. ruminating, acting impulsively) which resulted in higher levels of negative emotion, i.e. were counter-effective. The researchers outlined the practical implications of these findings in increasing the focus of interventions on diminishing the use of ineffective strategies rather than solely enhancing the use of effective coping strategies.

3.5.3. Strategies derived from the process model of ER

In contrast, the process model of ER (Gross, 1998) focused on the timing of strategies employed to modulate response tendencies and the impact of this on their efficacy. It provided a theoretical framework for ER which described response tendencies to emotional cues as occurring over time. These tendencies can be distinguished in terms of when they have their primary impact and can be modulated in a variety of ways. Gross and John (2003) emphasised that strategies to modulate responses may be used consciously, but are often automatically

executed without much conscious awareness or deliberation. Their investigation compared an antecedent focused strategy, cognitive reappraisal (CR), and a response focused strategy, expressive suppression (ES). Antecedent-focused strategies are described as things we do before the emotion response tendencies have become fully activated and have changed our behaviour and peripheral physiological responding. CR is a form of cognitive change that involves interpreting a potentially emotion-eliciting situation in a way that changes its emotional impact (Gross, 1998). Response-focused strategies are described as things we do once an emotion is already underway, after the response tendencies have already been generated. ES is a form of response modulation that involves inhibiting ongoing emotion-expressive behaviour (Gross, 1998). Gross and John (2003) predicted that CR would be more effective than ES as it has the potential to alter the subsequent entire emotion trajectory and decrease behavioural and experiential aspects of the emotion response tendencies. In contrast, ES comes relatively late in the emotion generative process. It may be effective in decreasing behavioural expression of negative emotion but also result in an unintended reduction in expression of positive emotion. Suppression will not be helpful in reducing the experience of negative emotion, which may continue to linger and accumulate unresolved. In addition, because suppression comes late in the emotion generative process, it requires the individual to effortfully manage emotion response tendencies which arise. Suppression may also result in the individual experiencing a sense of incongruence between inner experience and outer expression (Rogers, 1951). This sense of not being true to oneself, of being inauthentic rather than honest with others (Sheldon et al., 1997), may lead to negative feelings about the self and alienate the individual not only from the self but also from others.

Verzeletti et al. (2016) found that that a greater reliance on CR was positively associated with better wellbeing outcomes for most indicators, especially life satisfaction, social support perception, and positive affect. Greater preference for ES conversely was associated with lower wellbeing level for all indicators, including psychological health, emotional loneliness, and negative affect in adolescents. This may suggest that intervention effectiveness would be increased by training adolescents to master the use in their daily life of adaptive ER strategies, while limiting the use of ES. This mirrored the findings of previous research conducted with adult populations (Haga et al., 2009; Balzarotti et al., 2010). However, the research was correlational, therefore causal inferences were excluded, and findings were based on self-report measures which may not accurately reflect responses to emotional events as they occur in the real world (Silk et al., 2003).

Webb et al. (2012) investigated the effectiveness of strategies derived from the process model of ER (Fig.1) in modifying emotional outcomes using a meta-analysis of 306 experimental comparisons of ER studies. Findings provided support for the overall positive effect of CR strategies as compared to ES. However, they highlighted important within-processes differences. For example, suppressing the expression of emotion proved effective but suppressing the experience of emotion or suppressing thoughts of the emotion-eliciting event did not. Reappraising the emotional response proved less effective than reappraising the emotional stimulus or using perspective taking. In terms of the best way to deal with feelings, the findings point to the efficacy of reappraising the emotional stimulus, perspective taking, and active distraction. This meta-analysis involved experimental studies that manipulated (rather than measured) ER, using a form of attentional deployment, cognitive change, or response modulation. The extent to which findings apply to regulation of real-life emotion in a wide range of natural settings may be questioned. In particular, the study focused on the effect of using one particular ER strategy at a time. John and Gross (2007) suggested that in natural settings people frequently use coactive ER, which involves applying more than one ER strategy, sometimes simultaneously. These strategies may then interact in their impact on emotional outcomes.
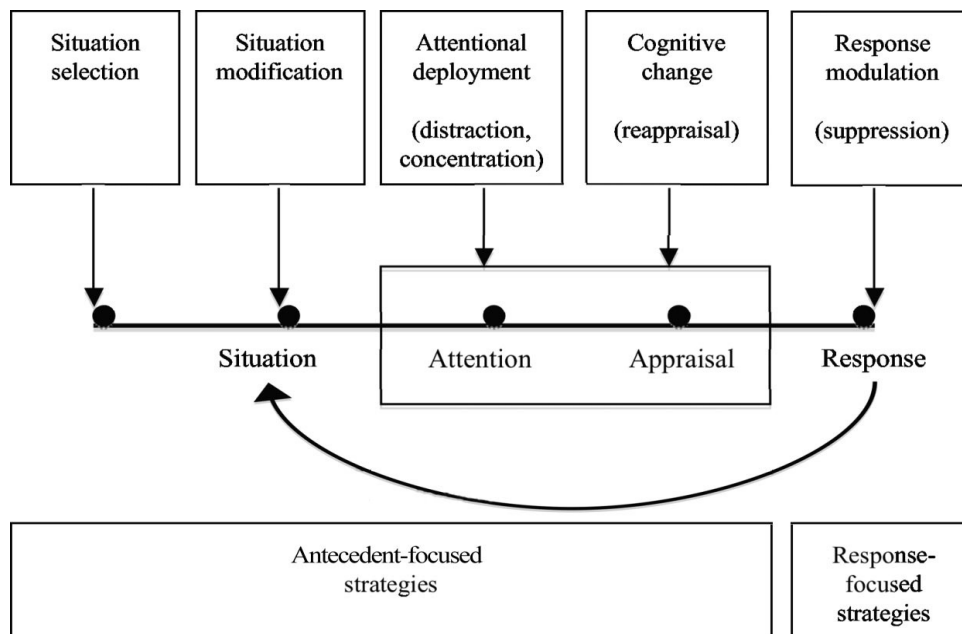
Figure 2. The process model of ER. (Webb et al., 2012).

3.5.4. Classification of ER strategies

Koole (2010) classified ER strategies in relation to their psychological function, described as need-oriented, goal-oriented, and person-oriented. For each function, strategies are considered which target attention, knowledge representations and bodily manifestations of emotional expression.

Need-orientated ER is described as being motivated by the needs of individuals to experience low levels of negative and high levels of positive emotion (hedonic needs). In relation to attention systems, this orientation may be reflected in a repressive coping style which involves avoidance of negative emotional stimuli and increased attention to positive information (Derakshan et al., 2007). In terms of knowledge representation, there is substantial evidence for the role of defensive biases (e.g. interpretive biases). Taylor et al. (2000) indicated that moderate and flexible forms of defensive bias are positively associated with mental health. Koole (2010) provided examples of bodily activities that involve immediate gratification as including eating, alcohol consumption, smoking and exercise. Tice et al. (2001) suggested that needs-oriented ER strategies may result in short-term emotional relief, which may be at the expense of long-term wellbeing.

Koole (2010) described goal-oriented ER as motivated by a single, explicitly articulated goal, norm, or task, focused on an individual's beliefs about the desirability of a particular emotional state. This may, or may not, be associated with fulfilment of hedonic needs. The role of distraction is described as key to regulation strategies in this area focused on the attention system. Rusting and Noel-Hoeksema (1998) found that providing people with a focused distractor, including the use of neutral tasks, can greatly increase the effectiveness of thought suppression. Gross and John (2003) described CR as a goal-oriented strategy which focused on changing knowledge representations through altering subjective evaluations of an event and ES as targeting the bodily system through active control, for example of facial expression, associated with emotion. However, the latter has little effect on the experience of unwanted emotions and is therefore described as the least effective of goal-oriented strategies.

Person-oriented regulation strategies are described as based on a holistic approach. This involves flexible accommodation of motivational, cognitive, and affective systems to contextual demands to achieve long-term benefits (Koole, 2010). The importance of the integration of systems that are traditionally regarded as antagonistic (e.g. positive versus negative emotion, passion versus reason) is also highlighted. In relation to attentional systems, Rothermund et al. (2008) described the counter-regulation principle, which suggested that

people employ attentional biases toward information of the opposite valence, so preventing the perseverance of current emotional states. Person-oriented regulation of attention is supported by activities such as meditation, which encourages engaging in a specific attentional set, or mindfulness which involves objective and non-judgemental noticing of internal and external experiences. According to Koole (2010), knowledge representation within person-centred strategies related to cognitive integration processes through which emotional experiences are integrated into wider knowledge networks. This enables personal growth to be achieved. Expressive writing is one example of a strategy through which this may be facilitated. Controlled breathing and progressive muscle relaxation are examples of regulation strategies that target bodily sensations in person-oriented approaches.

Aldao et al. (2015) highlighted increasing focus on identifying the contextual factors that influence the implementation and adaptiveness of ER strategies. Sheppes et al. (2014) showed that emotional, cognitive, and motivational factors affected the selection of different ER strategies. For example, when stimuli were low in intensity, cognitive demand was low, and long-term goals were activated, participants reported a preference for implementing CR. When stimuli were high in intensity, cognitive demand was high, and short-term goals were activated, participants indicated a preference for utilising distraction.

3.5.5 Implications for ER intervention

The research evidence discussed above provided the basis for consideration of the design of a psychoeducation intervention which aimed to develop adolescent ER skills. Weare and Nind (2011) highlighted the effectiveness of CBT approaches to SEL intervention. This may be argued to concur with research which supported the positive impact of ER strategies based on CR (e.g. Verzeletti et al., 2016; Webb et al., 2012). Lougheed and Hollenstein (2012) emphasised the benefits of having a range of ER strategies to use flexibly in response to contextual factors. This is supported by research which indicated that the most effective strategy to use in a particular context is dependent on emotional, cognitive, and motivational factors (Sheppes et al., 2014) such as the perceived controllability of the situation (Thurber & Weisz, 1997) and individual level of anxiety (Lewis et al, 2010). Recognition that people frequently use coactive ER in the real world (John & Gross, 2007) and that strategies are often automatically executed (Gross & John, 2003) further supports development of a flexible range of ER strategies which can be incorporated into an individual's response repertoire.

Brown et al. (2011) referred to three successive waves of behavioural therapy. CBT is described as a second wave intervention. It developed from the first wave behaviourist focus on observing, predicting, and modifying behaviour (e.g. Skinner, 1953), following an increasing awareness of the role of cognitions in maladaptive responses (Brown et al, 2011). Third wave interventions aimed to address the argument that CBT involves a mechanistic focus on the impact of cognitions on emotional responses (Hofmann & Asmundson, 2008). This is achieved through incorporation of a wider range of strategies alongside CBT, which encourage mindfulness of internal experiences and acceptance of negative thoughts to promote development of skills (Brown et al., 2011). Third wave interventions include DBT (Linehan et al., 1999) and acceptance and commitment therapy (ACT; Hayes, 2004). Selection of a third wave intervention which incorporated a focus on CBT alongside a wider range of strategies to promote flexible accommodation of emotional, cognitive, and motivational factors was therefore supported.

Chapman (2006) suggested that DBT may be considered to adopt a more educative approach to skills development as compared to the experiential focus of ACT. In the context of a psychoeducation intervention, application of DBT principles and techniques may therefore be considered more appropriate. In terms of Koole's (2010) classification of ER strategies, it may be argued that DBT principles and techniques align with the description of person-oriented approaches. A dialectical world view emphasises wholeness, development as occurring in context and the synthesis of thesis and antithesis (Linehan, 1993). This concurs with the holistic emphasis of person-oriented approaches, their focus on flexible accommodation to contextual demands and the integration of systems traditionally considered antagonistic (Koole, 2010). The inclusion of mindfulness as one of the four DBT group skills skill areas and the emphasis on emotional experiences being integrated into wider knowledge networks may provide further evidence of the person-oriented nature of many DBT principles and techniques. Koole (2010) argued that in comparison to needs or goal-oriented strategies, person-oriented ER strategies are associated with long-term benefits, increasing the potential impact of such an intervention.

4. Using DBT Techniques and Principles to support ER in post-16 educational settings

The potential for a psychoeducation intervention based on DBT techniques and principles to be used to develop the ER skills of students in an FE setting was therefore considered. The following sections examine the evidence base for application of DBT group skills to ER skills development in this context. The section begins with a brief overview of the origins of integrated DBT, the potential for wider application of the DBT group skills element and utilisation of DBT group skills in adolescent clinical populations. It is followed by a focus on the evidence base for use of DBT group skills in adolescent populations in educational settings. A rationale for exploration of application of DBT techniques and principles to a UK FE setting is then provided.

4.1. DBT skills training and ER

Swales and Dunkley (2019) emphasised that increasing individuals' capabilities in experiencing and managing emotions by enabling them to learn new skills to support behaviour change, has been central to both the theory and practice of DBT since its inception. Valentine et al. (2015) described standard DBT as a cognitive-behavioural therapy consisting of multiple modes of treatment including weekly individual therapy, weekly group skills training, and as-needed telephone coaching to address skill and motivational problems. DBT was originally developed to treat those who met criteria for borderline personality disorder (BPD) (Linehan et al.,1999). Feigenbaum's (2009) review, which included randomised controlled trials (RCTs) and qualitative research indicated an emerging evidence base for the effectiveness of integrated DBT therapy in clinical BPD populations. The importance of adherence to treatment programmes as a key factor impacting on outcomes was highlighted. Feigenbaum (2009) referenced the relevance of emerging research which aimed to identify the effective components.

Valentine et al. (2015) described DBT skills training as typically occurring in a group format and focused on encouraging the adoption of new behavioural, emotional, and thinking patterns. The conception that DBT group skills training may be an effective and resource efficient treatment for emotional dysregulation more generally has led to its adoption across a variety of clinical settings to address a range of treatment goals. Valentine et al. (2015) cautioned that although DBT skills training may be effective in this context, there is little empirical evaluation of such applications. Their systematic review of 17 trials employing DBT skills training found

preliminary evidence to support use of this intervention as a method of addressing a range of behaviours but highlighted the need for further research.

Groves et al. (2012) reviewed the evidence base for the wider use of DBT as a potential treatment for adolescents with a range of psychological disorders. They concluded that there was empirical support for DBT as a promising treatment in this area. However, the need for further research to address methodological problems with the evidence base was highlighted. Quinn and Hymas (2017) evaluated a DBT skills only group for adolescents experiencing moderate to severe self-harm. Participants found the group useful and supportive. Positive outcomes, including a reduction in self-harming behaviours, were recorded. However, it was concluded that combining skills training with additional therapeutic input (e.g. individual therapy) may improve outcomes. Evaluation of application of DBT group skills to adolescent clinical populations has therefore produced some positive preliminary indications and emphasised the importance of ongoing research. The following section explores application of DBT group skills in educational settings which have primarily focused on US post-18 college settings.

4.2. DBT principles and techniques applied to adolescents in educational settings

Chugani and Landes (2016) demonstrated that DBT group skills training may be more appropriate for implementation in college counselling centres than standard DBT. Rizvi and Steffel (2014) examined the feasibility of an abbreviated 8-week ER DBT skills training group in a US college context, and found that participants with significant emotional dysregulation reported improvements on measures of emotional dysregulation, affect and skills use. Panepinto et al. (2015) evaluated a 12-week DBT skills training group for students who presented with a need to increase coping skills and found significant improvements in a range of psychological symptoms.

Muhomba et al. (2017) highlighted practical issues in relation to coverage of the full DBT group skills programme which contained enough skills to run weekly groups for a full year without repeating content. They reported that many DBT group skills training groups for college students have offered a small selection of content from each training module (i.e. mindfulness, distress tolerance, ER, and interpersonal effectiveness skills). Muhomba et al. (2017) aimed to assess whether brief DBT skills training based only on mindfulness and distress tolerance skills were sufficient to produce improvement in a group of 22 college students presenting with serious psychological concerns. Findings indicated statistically significant improvements in ER, decreases in the use of maladaptive coping strategies and

increases in the use of adaptive coping strategies. Limitations included lack of a control/comparison group, self-report measures and a small sample size. However, it is suggested that the research provided promising preliminary insights into the future possibilities for short-term interventions focused on targeted skills training in college counselling centres. The above research was undertaken on college students aged 18+ in the US. The extent to which findings may be generalised to adolescents in the UK context is therefore questionable.

Wayne (2018) undertook an investigation into the effects of using of DBT techniques and principles to improve the functioning of 20 US high school students aged 15-18 years referred due to high levels of emotional dysregulation associated with adverse childhood experiences (ACEs). Teachers and students were trained in DBT strategies in mindfulness, emotional regulation, distress tolerance, and interpersonal relations. These were designed to reduce disciplinary referrals, increase use of positive coping skills, and improve measures of resiliency. The study employed a mixed- methods design where qualitative data provided deeper contextual understanding of quantitative findings through accessing individual perspectives and experiences. Students reported increased use of positive coping skills, combined with a decrease in negative coping skills. Comparison of pre and post resiliency sub-scale measures (Prince-Embury, 2011) found increased levels of adaptability, trust, tolerance, relatedness, and comfort, whereas emotional reactivity and impairment decreased following the 8-week intervention. No change was found in levels of support, self-efficacy, or optimism. The findings provided some preliminary support for the effectiveness of a short-term training intervention in DBT strategies in developing the resiliency skills of adolescents in a school setting. However, the small sample size and lack of a comparison group and follow up measures, significantly limited the extent to which robust conclusions could be drawn.

Flynn et al. (2018) evaluated the application of a DBT skills training intervention, delivered by teachers to universal student populations aged 15 to 16 years in Ireland. They used a manualised DBT group skills based social-emotional learning programme (DBT STEPS-A) developed in the US. This involved an adapted 22-week programme covering the areas of distress tolerance, ER, mindfulness, and interpersonal effectiveness. The programme was delivered by teachers who had received prior training. It was a quasi-experimental design involving a matched comparison between intervention and control schools matched on the basis of gender and amount of intervention received. All outcome measures were quantitative. They found significant differences for the emotion symptom index and internalising problems

outcome measures between the intervention and control groups, indicating a positive effect of the intervention on constructs such as depression, anxiety, and social stress. However, there was no significant difference between the groups on measures of DBT skills use or dysfunctional coping. Flynn et al. (2018) concluded that whilst there were positive results which provided some indication of the programme's potential, feedback from students and teachers with regard to content, structure and implementation challenges highlighted the need for caution. Recommendations for improvement included condensing the content, re-ordering the sequence of skills presentation and use of appropriate multimedia to aid learning and discussion of skills. This may suggest the need for more extensive tailoring of programme content and design to the particular delivery context prior to wider scale implementation. Small-scale implementation which included qualitative feedback to support more extensive exploration of participant experience of different aspects of the programme would support prioritisation of content based on participant feedback. Teacher feedback also concurred with Weare and Nind's (2011) emphasis on the importance of schools only undertaking interventions that fit their context and which they can easily implement with fidelity and rigour.

4.3. Rationale for a psychoeducation approach based on DBT principles and techniques

Donker et al. (2009) highlighted the need for brief, inexpensive and effective interventions to address the emotional health and wellbeing needs of young people. They provided support for the application of psychoeducational programmes as a first step intervention. There is substantial evidence to suggest that improving adolescents' ER skills is associated with positive mental health (e.g. McLaughlin et al.,2011) and social functioning (e.g. Eisenberg et al., 2006). In terms of Koole's (2010) classification of ER strategies, it may be argued that DBT principles and techniques align with the description of person-oriented approaches which are associated with long-term benefits, increasing the potential impact of such an intervention.

DBT was originally developed to address issues of emotional dysregulation in women with BPD (Linehan, 1993). There is evidence from RCTs for its effectiveness in this context (Brown et al., 2011). The group skills element of DBT has increasingly been adapted for use in a wide range of clinical settings and there is preliminary evidence to indicate positive outcomes for such interventions (Valentine et al., 2015). In the US context, a variety of DBT group skills-based interventions have been employed with post-18 college students. Evaluative studies provide initial supporting evidence (Rizvi and Steffel, 2014; Panepinto et al., 2015; Muhomba et al., 2017) with clear recommendations for further research. A whole school intervention

using a manualised DBT based group skills programme with adolescents (Flynn et al., 2018) highlighted potential benefits and challenges in the Irish secondary school context.

Rizvi and Steffel (2014) suggested that the role of mindfulness skills is core to DBT. Mindfulness is argued to improve individuals' ability to regulate emotions by increasing attentional control and reducing the rumination and judgment that contribute to emotional pain. This focus on the potential impact of mindfulness is supported by Carsley et al. (2017) who explored the relationship between student anxiety and risk of drop-out. They found evidence to suggest that mindfulness may mediate the relationship between anxiety and drop-out intention, and therefore be considered as a potential protective factor for risk of drop-out. Carsley et al. (2017) described their research as the first to examine the relationship between mindfulness and risk of drop-out, and highlighted the need for further research to contribute to the evidence base in this area. The fact that student retention is regarded as a key priority across the FE sector (Allen, 2012), indicated the potential benefits of exploration of an intervention focused on skills associated with improvement in this area.

5. Gaps in the existing literature

Evidence indicates that effective management of emotions brings a wide range of interpersonal, academic, and mental health benefits for children and young people (Davis, 2016; Silk et al., 2003; Verzeletti et al., 2016). Gullone and Taffe (2012) suggested that whilst the importance of ER for healthy psychological development is widely recognised, ER research focusing on the middle childhood to adolescent years has been relatively neglected. There is a small, but emerging base of contemporary research exploring the role of EPs in the post-school sector (Keegan & Murphy, 2018; Morris & Atkinson, 2018; Atkinson et al., 2015). However, despite the prevalence and widespread implications of mental health difficulties, Morris and Atkinson (2018) highlighted the fact that few studies have addressed student mental health. The above indicates the potential for further research relating to the role of EPs in contributing to the development of student ER skills in the post-16 sector.

Modified forms of DBT group skills have been used in educational settings in the US, particularly for post 18 college students. These studies have provided positive preliminary indications of the potential usefulness of short-term DBT group skills interventions for student participants who range from raising serious psychological concern (Muhomba et al., 2017) to those presenting with a need to increase coping skills (Panepinto et al., 2015). The term usefulness is used in this paper to reflect the extent to which an intervention may be considered successful in achieving a desired result. It is often used to convey first-person experience of the impact. Flynn et al.'s (2018) evaluation of the impact of a whole school SEL intervention involving application of a manualised DBT group skills programme developed in the US to Irish school pupils aged 15-16 years has begun to extend the research base for such interventions to adolescents outside the US context. This study highlighted the impact of the complexity and diversity of educational settings as a key factor for consideration in ensuring that programme content received full systems support both locally and nationally. Breen and Darlaston-Jones (2010) emphasised the importance of embedding research in the context of local settings in order to maximise the benefits of initiatives. The importance of conducting research to assess the potential impact of such interventions in a specific context is therefore highlighted.

A study which used DBT group skills training to improve the performance of US college students with attention deficit hyperactivity disorder (ADHD) (Fleming et al., 2015) was included in a recent Welsh Government (WG) guide to evidence-based interventions in

education (WG, 2019). However, no evaluation of the impact of using of DBT techniques and principles on adolescent emotional skills development has been identified in the English or Welsh context. The value of further exploration of the potential impact of an intervention which may contribute to a preventative approach to addressing the emotional needs of students in the UK post-16 sector is therefore indicated.

Lench and Carpenter (2018) conveyed limitations of the scientific study of emotions and their regulation in relation to the deeply personal nature of the subject matter which is "so related to our values and hopes, that it is almost impossible to convey their meaning to others in ways that can be understood" (p.1). The research literature reviewed primarily evaluated the impact of DBT based skills training on a variety of quantifiable outcome measures relating to ER, wellbeing, and mental health, to provide an indication of evidence-based outcomes. However, this emphasis on quantitative measures may be considered to have limited the extent to which personal feedback has been gained from participants regarding their experience of skills development resulting from interventions and strategy use. Breen and Darlaston-Jones (2010) suggested that a focus on purely quantitative research needs to be opposed in order to "provide meaningful sustainable solutions for complex human issues" (p.67). Gaining depth of understanding of the experience of those participating in interventions may provide critical feedback to inform ongoing evolution of programme design and delivery.

6. The Current Study

There is extremely limited research exploring the use of DBT principles and techniques to develop the ER skills of adolescents in the UK educational context. Research undertaken in the post-18 US context has focused on quantitative measures (e.g. Panepinto et al., 2015). A mixed-methods design which included standardised quantitative measures alongside qualitative feedback to gain deeper understanding of students' experiences of the intervention and use of strategies was therefore adopted.

Benefits to research in this area may include:

- Addressing a gap in the research literature;

- Exploring what an emerging approach can contribute to EP practice and vice versa;

- Exploring a process of extending EP support in the post-16 sector;

- Contributing to early assessment of the appropriateness of application of DBT based techniques and principles to develop student ER skills in the post-16 sector.

Specifically, this research aims to explore the following over-arching question:

Can a short-term EP led psychoeducation intervention, based on DBT principles and techniques, have an impact on development of ER skills in post-16 students?

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PART 2: EMPIRICAL PAPER

1. Abstract

Recent legislative changes have prompted a focus on increasing the research base for educational psychologist (EP) practice in the post-16 sector. The potential for a distinctive EP contribution in supporting development of personal skills is highlighted. There is also an increasing emphasis on the need for a preventative focus to promote the positive mental health and wellbeing of children and young people (CYP). Research indicates that developing adolescents' emotion regulation (ER) skills may have benefits in promoting coping skills which support achievement of the above objectives. Modified versions of the group skills element of dialectical behaviour therapy (DBT) have been used in the US post-18 context to develop student ER skills. There is very limited UK research exploring the application of these strategies. Research which has been undertaken has focused on quantitative measures. This mixed methods study explored the impact of an 8-week EP led psychoeducation intervention, based on DBT principles and techniques, on ten post-16 students in a further education (FE) setting. Small-medium and small effect sizes were recorded on the emotional reactivity (REA) and sense of relatedness (REL) resiliency scales respectively. The effect size for the sense of mastery (MAS) scale fell below the 0.2 value considered to be indicative of a small effect size. Qualitative feedback highlighted student perceptions of strategies focusing on cognitive reappraisal, mindfulness, and biopsychosocial techniques as most useful. Valuable insight into student priorities for change and effective methods of supporting development of coping skills were also gained. The above localised perspective may provide some preliminary indication that a short intervention based on DBT principles and techniques could positively contribute to post-16 students' development of ER strategies.

2. Introduction

2.1. Context Setting

WHO (2019) highlighted the combined impact of the physical, neurological, psychological and social changes which take place in adolescence on health and behaviour. These changes are argued to drive the documented increase with age in physical and mental health problems, and have important implications for present and future health and development. Adolescence and early adulthood are described as periods where mental health problems are likely to emerge (WHO, 2019). In relation to the FE sector, a survey by the Association of Colleges (AoC, 2017) found that all respondents reported having students on roll experiencing anxiety and depression, with difficulties attributed to a variety of factors including social media, exams, financial stress, drugs and alcohol and home circumstances. In addition, 85% of respondents reported an increase in students with disclosed mental health issues in the past 3 years. The most recent AoC (2020) survey confirmed the above trends and further highlighted that 85% of colleges reported a significant number of students with mental health difficulties who do not have a diagnosed mental health condition.

Rothi and Leavey (2006) emphasised the missed opportunity for use of preventative strategies associated with criteria for accessing mental health support. This has led to a focus on the role of social and emotional learning (SEL) programmes which develop individual emotional competencies, within the educational sector (WG, 2018). Their potential to address the needs of "the missing middle" (WG, 2018, p.20), described as CYP who need support but do not meet the threshold for specialist services, is emphasised. Atkinson and Martin (2018) highlighted the potential for EPs to contribute to development of positive mental health and wellbeing as a key opportunity emerging from recent legislative change in relation to their role in the post-16 sector.

2.2. Rationale for a psychoeducation approach based on DBT principles and techniques

Donker et al. (2009) highlighted the potential for short-term psychoeducation interventions to provide support for emotional wellbeing and mental health needs. The importance of a preventative approach to meeting the needs of CYP who require support but do not meet the criteria for specialist services is emphasised (WG, 2018). There is preliminary evidence to suggest that the application of principles and techniques derived from the DBT group skills

element may contribute to ER skills development in the educational sector (e.g. Muhomba et al., 2017). DBT principles and techniques may be considered to provide person-oriented ER strategies which increase the potential for long term benefits to be realised. It is argued that person-oriented strategies support individual tailoring of strategy use in line with motivational, cognitive and affective factors (Koole, 2010). DBT is considered to be a third wave therapy (Brown et al, 2011), which incorporates a CBT foundation with a wider range of strategies (e.g. mindfulness and acceptance-based approaches). This aims to address the argument that CBT involves a mechanistic focus on the impact of cognitions on emotional responses (Hofmann & Asmundson, 2008). The core role of mindfulness in DBT (Rizvi & Steffel, 2014) contributes to its' person-oriented nature. Emerging research suggested that mindfulness may play a mediating role between student anxiety and drop-out intention (Carsley et al., 2017). This linked to a key priority of student retention within the post-16 sector (Warwick et al., 2008). The above may be considered to indicate the potential for a psychoeducation intervention based on DBT principles and techniques to contribute to a preventative approach in order to address the needs of the missing middle.

2.3. DBT principles and techniques and development of emotion regulation skills

Key principles on which DBT is based include:

- A dialectical perspective that emphasises a world view of wholeness and interrelatedness in which truth evolves, develops, and is constructed over a lifespan. Reality is not static but comprised of internal opposing truths (thesis and antithesis) and the integration (synthesis) of the divergent forces creates a new set of contrasting truths.
- Biosocial theory which describes emotional dysregulation as an inability to monitor, evaluate, and modulate when and what emotions occur, and how one experiences and expresses emotions. The maintenance of problem behaviours is the result of skill deficits, deficiencies in emotional regulation, and cognitive factors.
- An acknowledgement of the influence of cognitive behavioural therapy (CBT) on the development of DBT.

    (Linehan, 1993)

Miller et al. (2006) suggested that there are three additional dilemmas encountered during adolescence which need to be understood and balanced. These are excessive lenience versus

authoritarian; distinguishing between normative and pathological behaviour; and fostering dependence versus autonomy (Morris et al., 2006). Consideration of dialectical dilemmas aims to identify more than one solution to a problem, accept change and recognise that there can be more than one truth in any given situation.

DBT group skills training is one element of DBT (Valentine et al., 2015). It consists of a range of strategies focused on developing skills in four key areas: mindfulness; ER; distress tolerance; and interpersonal relations. The full DBT group skills content covers material for weekly groups for over a year (Muhomba et al., 2017). This content has been adapted in both clinical (Valentine et al., 2015) and educational settings (e.g. Chugani & Landes, 2016) to provide short-term interventions to develop ER skills. Adaptations have involved coverage of all four skill areas (e.g. Panepinto et al., 2015) or focus on a reduced number of skill areas (e.g. Muhomba et al., 2017).

2.4. Gaps in the literature

Gullone and Taffe (2012) highlighted gaps in current research relating to ER in the adolescent years. The potential role of EPs in supporting development of ER skills in the post-16 sector is referenced by Morris & Atkinson (2018). The paucity of research exploring the application of DBT principles and techniques in the UK context to achieve these aims is noted. The importance of undertaking evaluation in the specific context within which an intervention is embedded and gaining feedback relating to participant experiences to inform effective programme development is emphasised (Breen & Darlaston-Jones, 2010).

2.5. The current study

There is extremely limited research exploring the use of DBT principles and techniques to develop the ER skills of adolescents in the UK educational context. Research undertaken in the post-18 US context has focused on quantitative measures (e.g. Panepinto et al., 2015). A mixed-methods design which included standardised quantitative measures alongside qualitative feedback to gain deeper understanding of students' experiences of the intervention and use of strategies was therefore adopted in the current study.

Benefits to research in this area may include:
- Addressing a gap in the research literature;
- Exploring what an emerging approach can contribute to EP practice and vice versa;
- Exploring a process of extending EP support in the post-16 sector;

- Contributing to early assessment of the appropriateness of application of DBT based techniques and principles to develop student ER skills in the post-16 sector.

Specifically, this research aims to explore the following over-arching question:

Can a short-term EP led psychoeducation intervention, based on DBT principles and techniques, have an impact on development of ER skills in post-16 students?

3. Method

3.1. Methodology

A critical realist position was adopted in undertaking the research (Bhaskar, 1975). Critical realism is accepting of the construct that there is an independent reality, but that no individual can have an absolute knowledge of reality. Maxwell and Mittapalli (2010) argued that critical realism combines ontological realism (the existence of a real world, which can be understood in both mental and physical terms), while accepting a form of epistemological constructivism (the existence of multiple legitimate accounts and interpretations).

Pawson and Tilley (1997) described the role of critical realist process-oriented investigations using qualitative methods in substantially strengthening understanding of the events and processes which contribute to observed changes. They argued that this supports development of understanding of how processes work in a particular context, and has been applied explicitly to mixed methods studies in programme evaluation. The contribution of a critical realist stance in recognising the impact of the relationships a researcher develops with participants and other stakeholders is also valuable (Maxwell, 2005).

The aim of this research was to gain feedback regarding the impact of a short-term psychoeducation intervention on post-16 students experiences of ER by collecting data which would provide meaning, and ultimately contribute to knowledge. Critical realism guides and facilitates highly reasoned reflective and coherent actions to bring about positive change (Scotland, 2012). Maxwell and Mittapalli (2010) articulated the goal of mixed methods research as to deepen, rather than simply broaden or triangulate understanding, by utilising an approach which embraces the opportunity to consider diverse perspectives.

3.2. Design

The current study involved a design in which the use of mixed methods was planned at the start of the study and the procedures were mainly implemented as planned. A parallel mixed methods design (Creswell & Plano-Clark, 2011) was adopted which involved the qualitative and quantitative data being collected at the same time or within a short time lag. Appropriate techniques were used to analyse each data set and findings were integrated to add depth to their explanatory value. The design of the qualitative and quantitative phases is summarised in Figure 3.

3.2.1. Quantitative phase

A pre and post repeated measures design was used for the Resiliency Scale (Prince-Embury, 2011) measures of MAS, REL and REA and the sub-scales associated with each. A pre and post repeated measures design was also used for the modified DBT Ways of Coping Checklist (DBT WCCL; Neacsiu et al, 2010) (Appendix A2) coping skills and dysfunctional coping scores.

In order to address student response bias on the self-report measures and to facilitate triangulation of measures a pre and post modified World Health Organisation – Five Wellbeing Index (WHO-5; WHO, 1998) (Appendix A3) was completed by a staff member for each student participant.

The quantitative phase also included process measure ratings of 'strategy usefulness' on a 5-point likert scale at four time intervals during the progress of the intervention. Post-intervention ranking of 'most useful' and 'least useful' strategies were completed. A 3-month follow-up questionnaire was used to gain ratings on frequency of strategy use on a 5- point likert scale. Students also provided categorical ratings of overall intervention effectiveness.

3.2.2. Qualitative phase

Diary sheets (Appendix A4) completed by students at four time intervals during the progress of the intervention provided qualitative feedback on strategies used and their effectiveness through open-ended response items. Student feedback on strategy usefulness and their experience of the intervention was also collected using open questions as part of the post-study measures. The 3-month follow up questionnaire (Appendix A6) gained qualitative feedback on use and effectiveness of strategies using open questions.

Time 1	Time 2	Time 3	Time 4	Time 5	Time 6
		← Process Measures →			
Pre- Measures				Post-Measures	Follow- up Measures

Intervention Sessions
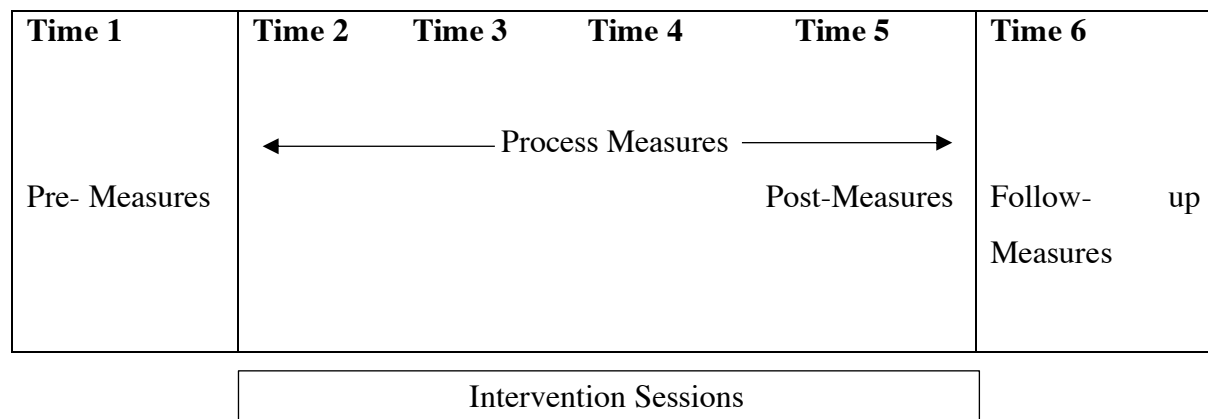
Figure 3: Research design for qualitative and quantitative phases

3.3. Participants

3.3.1. The research sample

A FE college was contacted to discuss the potential for undertaking the proposed research project. The college responded positively as the aims of the project aligned closely with college plans for development of student support service provision to include group-based interventions. Involvement of counselling staff and learning mentors in development and implementation of the project was a positive feature. Due to practical considerations relating to timetabling and student availability, it was agreed that participants would be drawn from the second year of the A level programme cohort at the college. Selection of participants was based on a volunteer sample. The material used was tailored specifically to adolescents, therefore participants were between 16 and 19 years of age. Students who were raised by their form tutor or head of year as a cause for concern with regard to emotional wellbeing or who had expressed interest in developing emotionally-based coping skills were provided with information regarding the programme. Those who expressed an interest in taking part were given more detailed information and provided with student and parent information sheets and consent forms. The importance of committing to attend all 8 sessions was emphasised to potential volunteers.

3.3.2. Research participants

Twelve full-time students initially took part in the study (7 female, 5 male, age 17-19 years). One participant withdrew following the individual introductory session. Data was withdrawn for one participant who attended 50% of the sessions and did not complete the post-study measures. Analysis was therefore based on ten students (5 female, 5 male, age 17-19 years). The average attendance over the 8 sessions for this group was 89%. Seven out of ten participants were recorded as having completed the 3-month follow-up questionnaire. However, data was only completed for six of the seven and therefore analysis for the 3-month follow-up was based on 60% of the sample.

3.4. Procedure

Following discussion with relevant staff at the college, consent for the project was gained through a College Gatekeeper Letter (Appendix A8). The head of the A level programme at the college was provided with copies of the Student Participation Information Sheet (Appendix A9), Consent Form for Student Participants (Appendix A10), Parent Information Sheet (Appendix A11) and Consent Form for Parents (Appendix A12). Copies of the above were

given to students who, after receiving initial information regarding the project, expressed interest in participation. Detailed planning with regard to timing and venue of sessions, involvement of college staff in sessions and post-study feedback was undertaken with student support services staff and the head of the A level programme.

The sessions were developed and conducted by the researcher. The content of the sessions and accompanying resources were planned and developed prior to the programme. A summary of session plans is attached at Appendix A1. DBT principles and techniques covered on a 2-day DBT group skills training course attended by the researcher were used as the basis for the session planning. This material was supplemented, where judged appropriate, by resources derived from other sources. Modifications to the DBT WCCL (Neacsiu et al., 2010) and the WHO-5 Wellbeing Index (WHO, 1998) were undertaken to maximise their relevance to the sample population and study context.

The pre-intervention quantitative measures (Resiliency Scales and modified DBT WCCL) were completed as part of the individual introductory sessions. These sessions were undertaken in a learning mentor office. A member of staff who knew the individual student well was asked to complete the modified WHO-5 Wellbeing Index (WHO, 1998) at this point in time. The individual sessions were also used to introduce the students to the aims of the study, gain some understanding of their individual interest and hopes for participation, develop relationships, and provide the opportunity to ask questions.

The subsequent 7 sessions were undertaken in a meeting room which was located outside the main teaching area for A level students in the college. This was chosen to increase privacy and reduce the potential for any concerns relating to stigma which students may experience in relation to their peers. The sessions were planned at the same time on consecutive weeks. Five sessions took place before the spring half term break and two sessions after the break. The number of sessions, timing and venue were carefully planned to address potential issues with student attendance and retention. Participants were provided with a hard copy of session dates during the introductory sessions. The day before each session a reminder email was sent to all participants.

Diary sheets (Appendix A5) were completed by students at the start of a session. They provided qualitative and quantitative feedback on student perceptions regarding usefulness of the strategies which had been covered in the previous session(s). Each session then proceeded with a 'warm-up' activity which was linked to previous learning or the learning to be covered in the current session. The aim was to develop confident student knowledge and practice of a

relatively small number of strategies through use of practical activities, and repetition and revisiting of material in varied formats. Homework set was limited to a request to practice strategies covered in the intervening week. This was reflected on and reviewed using the diary sheets. A student support services staff member (counsellor and/or learning mentor) attended each of the sessions in the role of observer. This provided the opportunity to reflect collaboratively on the progress of each session and modifications which may prove useful in subsequent sessions.

The sessions were undertaken as planned in most aspects. Modifications were mainly associated with issues relating to time allocation. These modifications included reducing the number of diary sheets completed by student from 6 to 4 and not covering the 'interpersonal effectiveness skills' element planned for session 6. In total, 10 coping strategies (listed in Appendix 5 – Diary Sheet 4) were covered in the course of the 8-week programme.

The post-intervention quantitative measures (Resiliency Scales and modified DBT WCCL) were completed as part of the final session. In addition, a Course Feedback Questionnaire (Appendix A5) was also completed which provided participant rankings of their 'top 3' and 'bottom 3' strategies and qualitative feedback regarding student experience of the intervention. A 3-month Follow-Up Questionnaire (Appendix 6) was distributed to participants electronically 3 months after the end of the intervention. This provided an overall summary of course usefulness, ratings relating to frequency of strategy use and qualitative feedback regarding participant use of strategies. An automated reminder was programmed to be sent to participants 5 days after the original request for questionnaire completion. No further contact was made with participants.

The procedures used in implementing the parallel mixed methods design are summarised in Figure 4.

Stage 1

Design the quantitative phase:
Pre and post measures using repeated measures design Process measures Follow-up measures

Design the qualitative phase:
Diary sheet process feedback Post and follow-up study student feedback

Stage 2

Collect quantitative data:
Obtain consent Identify sample Collect pre-intervention quantitative data Implement intervention and collect process data Collect post-intervention data Collect 3-month follow-up data

Collect qualitative data:
Obtain consent Identify sample Implement intervention and collect process data Collect post-intervention data Collect 3-month follow-up data

Stage 3

Analyse quantitative data:
Compare pre and post measures using descriptive statistics and effect sizes. Illustrate ratings and rankings using descriptive statistics

Analyse qualitative data:
Thematic analysis

Stage 4

Merge results and interpret meaning

Figure 4: Summary of procedures used in implementing the parallel mixed methods design

3.5. Data measures and analysis

3.5.1. Quantitative Measures

Effect sizes rather than statistical testing were used to assess the impact of the intervention. The study was an uncontrolled trial using a psychoeducation intervention. It was not an experimental design with random assignment to a control condition. Therefore, the analytic approach used for the quantitative data was descriptive rather than hypothesis testing.

Pre and Post Measures

Resiliency Scales (Prince-Embury, 2011) were chosen to reflect the psychoeducation and preventative as opposed to therapeutic focus of the study. Effect sizes for MAS, REL and REA resiliency overall scale and sub-scale scores (Prince-Embury, 2011) recorded post-intervention as compared to those recorded pre-intervention provided feedback regarding the impact of the intervention. A sense of mastery is described as providing the opportunity for CYP to interact with, and enjoy, cause and effect relationships in the environment (Prince-Embury, 2011). The scale includes three sub-scale measures which aim to reflect the personal characteristics which contribute to a sense of mastery. These are optimism, self-efficacy, and adaptability. A sense of relatedness reflects a basic human need to feel securely connected to individuals in a social context (Prince-Embury, 2011). The scale includes four sub-scale measures that contribute to a sense of relatedness. These are sense of trust, perceived access to support, comfort with others and tolerance. Emotional reactivity is described as an individual's pre-existing level of arousal prior to the occurrence of adverse events (Prince-Embury, 2011). The scale includes three sub-scale measures. These are sensitivity, recovery, and impairment.

Descriptive statistics for the student coping skills use and dysfunctional coping scores on the modified DBT WCCL (Neacsiu et al., 2010) recorded post-intervention as compared to those recorded pre-intervention provided feedback regarding the impact of the intervention. This aimed to provide a measure of

any change in participants use of coping skills following the intervention. A modified form was used to shorten the time taken for completion of this measure, simplify the   language used in the questions, to replace Americanised vocabulary with more familiar terminology and to exclude questions which were judged to have limited relevance to the target population.

Modified WHO5 Wellbeing Index (WHO, 1998) completed by a member of college staff who knew the student well aimed to provide an independent college perspective on observed student wellbeing pre and post intervention. This was modified to support completion by a third person.

Process Measures

Descriptive statistics to reflect participants ratings of the usefulness of each of the 10 strategies provided feedback relating to the comparative effectiveness of strategies covered during the intervention.

Participant ranking of 'Top 3" and 'Bottom 3' strategies in the post course feedback questionnaire provided feedback regarding the ongoing usefulness of strategies covered.

Follow up Measures

Descriptive statistics to reflect participants ratings with regard to the impact of the intervention on their ability to manage their emotional wellbeing and the frequency of their ongoing strategy use provided feedback regarding their feelings with regard to the usefulness of the intervention after a 3-month time elapse.

3.5.2. Qualitative Measures

The qualitative aspect of the study aimed to address the over-arching research question through the following exploratory sub-questions:

1. What are the reported perceptions of students regarding their experience of the psychoeducation intervention?

2. What are the reported perceptions of students regarding their use and experiences of the effectiveness of the strategies covered?

Process Measures

Students completed a diary sheet (Appendix A4) at four time intervals during the course of the sessions. The diary sheets were completed at the beginning of a session and asked participants to provide qualitative feedback with regard to their experience of strategy use.

Students completed a post course feedback questionnaire (Appendix A5) where they were asked to give qualitative feedback with regard to their perceptions of their most and least preferred strategies and their experience of the intervention.

Follow-up Measures

Students completed a three month follow up questionnaire (Appendix A6) where they were asked to give qualitative feedback with regard to their use of strategies and their perception of any change in their ability to manage their emotions following the intervention.

The quantitative and qualitative measures used to explore the research question and sub-questions are summarised in Figure 5 below.

Time	Time 2	Time 3	Time 4	Time 5	Time 6
	←	Process Measures		→	Follow- up
Pre- Measures				Post-Measures	Measures
Quantitative Measures: Modified WHO-5 Wellbeing Index Resiliency Scales Modified DBT WCCL Checklist	Diary Sheet 1-4 'Strategy Usefulness' Ratings		Modified WHO-5 Wellbeing Index Resiliency Scales Modified DBT WCCL Checklist Ranking of most useful and least useful strategies		Impact of intervention on ability to manage emotional wellbeing ratings. Frequency of strategy use ratings.
Qualitative Measures	Diary Sheet 1-4 Student feedback on use of strategies		Student feedback on experience of intervention		Student feedback on strategy use and effectiveness

Figure 5: Summary of qualitative and quantitative measures at each phase

3.5.3. Quantitative analysis

The methods of quantitative analysis used to support assessment of the impact of the intervention are summarised in Table 2.

Table 2: Summary of quantitative measures, levels of data collected and statistical analysis conducted

Measure	Level of Data	Analysis
MAS (and subscales)	Interval	
REL (and subscales)	Interval	Cohen d effect sizes
REA (and subscales)	Interval	
Modified DBT WCCL Checklist	Ordinal	Graphical representation
Modified WHO-5 Wellbeing Index	Ordinal	Graphical representation
	Ordinal	Graphical representation

Diary sheet strategy usefulness ratings		
	Nominal	Graphical representation/Frequency data
Ranking of strategy usefulness		
	Nominal	
Follow-up intervention impact and strategy use ratings		

3.5.4. Qualitative analysis

Thematic analysis (Braun & Clarke, 2006), with a focus on semantic analysis was used as a tool for analysing the qualitative data collected. This facilitated the development of key themes to reflect the meaning of the student feedback gained and limited the influence of researcher interpretation by providing a descriptive analysis (Guest et al., 2012). Qualitative feedback gained from the open-ended questions on the diary sheets, course feedback questionnaires and three-month follow up questionnaires was transcribed in full. Careful reading of this data supported development of some initial codes. Manual coding of the transcribed documents was then undertaken using colour coding. Transcribed data was then allocated to codes on an excel spreadsheet and a review of coding was undertaken. Review and reflection on links between the initial codes began the process of development of sub-themes. This process was repeated to refine selection and merge sub-themes that were considered to have significant overlap. Grouping of sub-themes into themes and overarching themes emerged as relationships between sub-themes became apparent. Labelling of sub-themes, themes and over-arching themes was reviewed and refined in conjunction with the above process. The final selection and description of over-arching themes, themes and sub-themes aimed to communicate key patterns emerging from student feedback. Quotes to illustrate these themes were selected with the aim of conveying the range of participant feedback relevant to the area. A detailed account of the process of the semantic analysis with sample workings is attached at Appendix B1.

3.6. Ethical considerations

3.6.1. Informed consent

Consent was gained from the FE college via a gatekeeper letter to the college principal. Written consent was gained from individual student participants and their parent/guardian following provision of full information in written form, with the opportunity to contact the researcher via email to request further information. Whilst the researcher was aware that parental consent

was not mandatory in this context, it was decided that the benefits of informing parents of the project aims at the outset outweighed the potential disadvantages. This decision was taken in conjunction with college staff who judged that informing parents would reduce the potential for confusion or miscommunication which may result if this step was not taken. None of the participants questioned or objected to the request to gain parental consent.

The 3-month follow-up questionnaire was distributed, completed, and returned electronically. Participants were provided with full information relating to completion of the questionnaire and asked to provide consent before proceeding with the questionnaire.

3.6.2. Confidentiality and anonymity

All documentation associated with the research project was stored confidentially. Individual participants and parents/guardians were given participant information sheets and asked to complete consent forms prior to involvement in the study. Participants were allocated codes rather than names when completing documentation to be used for research purposes (e.g. pre and post questionnaires), to ensure anonymity at the point of data collection. Documentation completed by college staff (e.g. completion of Modified WHO-5 Wellbeing Index) was anonymised at the point of collection. All data was securely archived after the project due to its possible historical value, with access restricted to the named researcher.

Access to information linking codes to identity was restricted to the named researcher. This document was held separately to data collected for analysis in a secure, locked cabinet. It was used only: to remind participants of their unique code if this was forgotten; to allow data collected to be destroyed if a participant withdrew from the study; or to provide information regarding student identity in the unlikely event that a disclosure involving risk issues was made in a questionnaire response. This document was destroyed following return of the 3-month follow-up questionnaires.

Whilst participants in the group skills sessions were asked to agree to a set of ground rules which include a commitment to treating information shared in the group as confidential, this could not be guaranteed. The emphasis in the group skills sessions was on understanding and applying skills. Participants were reminded at the start of each session of the need to treat the group as a classroom learning environment in making judgements about information which was appropriate to share.

The 3-month follow-up questionnaire was distributed, completed, and returned electronically with full anonymisation of participant information.

3.6.3. Right to withdraw

Participants were reminded that they could withdraw from the process at any time, without having to give a reason. If participants decided to withdraw from the programme, any information gained would be destroyed and every effort made to remove the person's information from analysis of the data.

3.6.4. Risk of harm

There was a potential risk of participant distress during the group skills sessions. The likelihood of this occurring was carefully managed by the researcher through careful monitoring of the progress of sessions and sensitive response to participant feedback. However, participants would be sign-posted to relevant services where appropriate.

The researcher was a qualified teacher with significant experience (20+years) of delivering a range of educational programmes to the 16-19 age group, both in a secondary school and FE contexts. These include delivery of personal, health, social and emotional education and A-level units which included sensitive content. Development of the knowledge base required to design and deliver this programme included participation in a two-day DBT group skills training event.

There was also a small potential for disclosure of risk issues during the sessions or following questionnaire completion. The consent form explained the circumstances under which confidentiality would be broken, such as risk of hurting themselves or others. Should the potential for risk arise, the research supervisor would be notified for further assessment and management of the risk.

3.6.5. Debriefing

Debriefing was undertaken as part of the final session, in verbal and written form (Appendix A6). A debrief section was also included at the end of the 3-month follow-up questionnaire (Appendix A12). The debrief contained clear information regarding contact details if post-intervention concerns arose.

4. Results

The section below considers the findings from each of the quantitative measures in relation to the aim of the research to explore the following over-arching question:

Can a short-term EP led psychoeducation intervention, based on DBT principles and techniques, have an impact on development of ER skills in post-16 students?

The findings of the qualitative aspect of the study aimed to address the over-arching question through consideration of the following sub-questions:

1. *What are the reported perceptions of students regarding their experience of the psychoeducation intervention?*

2. *What are the reported perceptions of students regarding their use and experiences of the effectiveness of the strategies covered?*

4.1. Quantitative analysis

4.1.1. Pre and post measures

The means and standard deviations for the Resiliency scale and sub-scale measures are reported in Table 3 (a) and (b).

Table 3 (a): Pre and post mean and standard deviation for resiliency scales

Scale	Pre Mean (SD)	Post Mean (SD)
MAS	46.3 (8.27)	47.2 (6.05)
REL	43.0 (7.30)	44.5 (7.65)
REA*	54.0 (4.99)	51.5 (7.53)

Table 3 (b): Pre and post mean and standard deviation for resiliency sub-scales

Sub-Scale	Pre Mean (SD)	Post Mean (SD)
Optimism	8.6 (3.10)	9.5 (2.07)
Efficacy	8.4 (3.13)	9.0 (2.31)
Adaptability	8.6 (2.88)	10.2 (1.03)
Trust	6.9 (2.02)	7.4 (3.10)
Support	9.6 (2.63)	10.1 (2.38)
Comfort	5.9 (2.47)	6.3 (2.67)
Tolerance	9.7 (1.42)	10.1 (1.37)

Sensitivity*	10.9 (1.91)	10.4 (2.27)
Recovery*	10.7 (2.79)	10.8 (2.78)
Impairment*	11.5 (1.35)	10.3 (1.83)

* Note: Increases in score indicate increased resiliency on the MAS and REL scales and sub-scales whereas decreases in score indicate increased resiliency on the REA scale and sub-scales.

Effect sizes for the resiliency scale and sub-scale measures are reported in Table 4 (a) and (b). Although there are no absolute standards as to what constitutes a small, medium, or large effect size, generally 0.2 (Odds Ratio = 1.2) might be considered small, 0.5 (Odds Ratio = 1.6) might be considered moderate, and 0.8 (Odds Ratio = 2.2) might be considered large. These indicated small and small-medium effects on the REL and REA scales respectively. The effect size for MAS fell below the level indicative of a small effect size. Small effect sizes were recorded for the majority of sub-scale measures with the exception of 'recovery' where the effect size fell below 0.2 and 'adaptability' and 'impairment' where medium effect sizes were recorded.

Table 4 (a): Cohen's d effect sizes for resiliency scales

Scale	Effect Size
Sense of Mastery (MAS)	0.173
Sense of Relatedness (REL)	0.365
Emotional Reactivity (REA)	0.427

Table 4 (b): Cohen's d effect sizes for resiliency sub-scales

Sub-Scale	Effect Size
Optimism	0.3
Efficacy	0.324
Adaptability	0.606
Trust	0.281
Support	0.219
Comfort	0.314
Tolerance	0.199
Sensitivity	0.293

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Recovery	0.054
Impairment	0.642

Student 'coping skills use' and 'dysfunctional coping' scores on the modified DBT WCCL checklist (Neacsiu et al., 2010) recorded post-intervention as compared to those recorded pre-intervention are shown in Figure 6. An increase in reported mean coping skills and a decrease in dysfunctional coping skills were recorded.
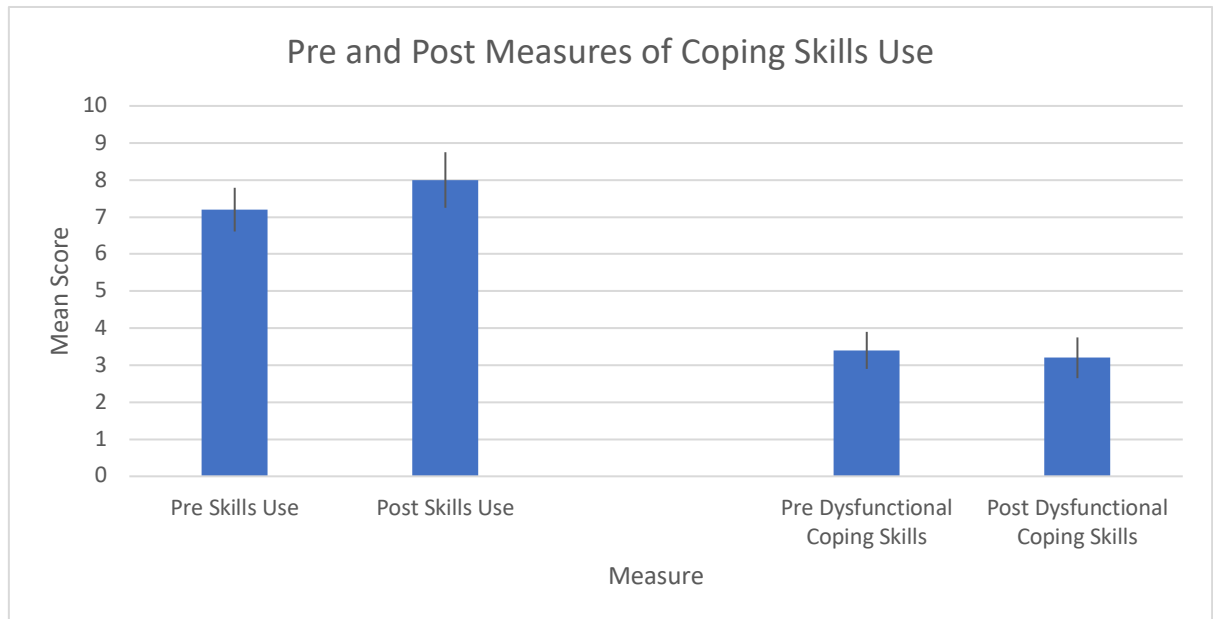
Figure 6: Mean scores on modified DBT-WCCL checklist

Pre and post modified WHO-5 Wellbeing index ratings (WHO, 1998) completed by a member of college staff who knew the student well are shown in Figure 7. These provided an independent college perspective on observed student wellbeing pre and post intervention. These showed an increase in mean wellbeing ratings following the intervention.
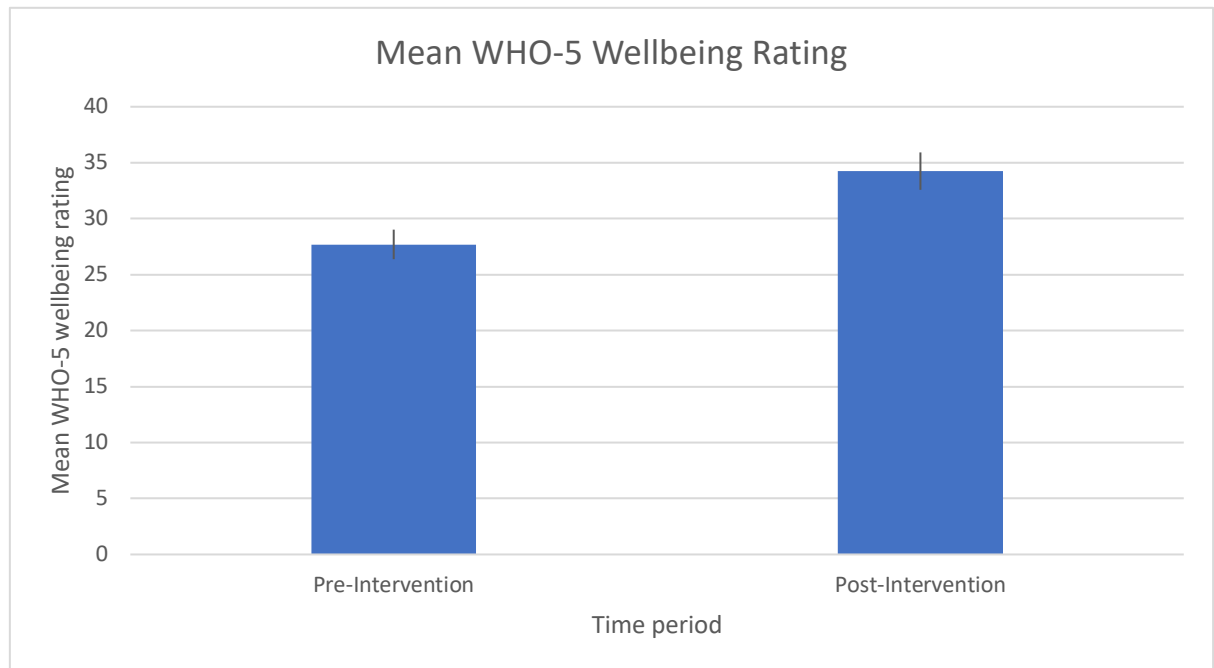
Figure 7: Modified WHO5 wellbeing scores

4.1.2. Process measures

Participants ratings of the usefulness of each of the 10 strategies are shown in Figure 8. These provided feedback relating to participant perceptions of the comparative effectiveness of strategies covered during the intervention. Strategies covered in the early part of the intervention were rated more frequently than those in the later part of the intervention. Findings are therefore presented in terms of the proportion of total responses recording a likert scale rating of '4 = tried and helped' for each strategy. Feedback indicated that cognitive reappraisal, what skills and ACCEPTS were perceived to be the most useful strategies by students during the course of the 8 week intervention. Check the facts and pros and cons were recorded as the least useful strategies during the intervention.
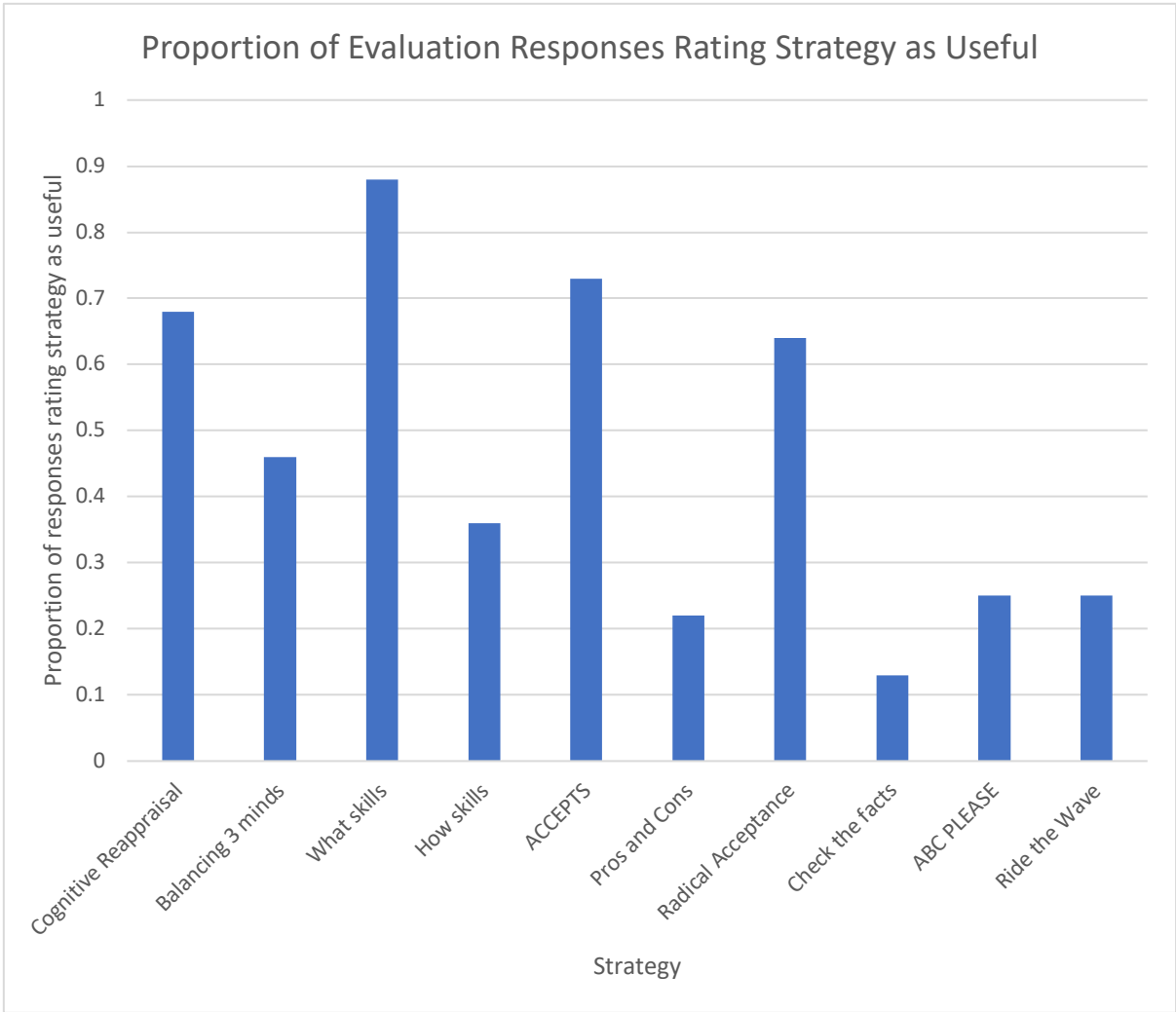
Figure 8: Participant ratings of strategy usefulness

Participant ranking of 'Top 3" and 'Bottom 3' strategies in the end of course feedback questionnaire are shown in Figure 9. This provided overall feedback regarding participants perception of the usefulness of strategies covered. Findings largely mirrored feedback gained from the diary sheets in terms of perceptions of the most useful strategies. Cognitive reappraisal, mindfulness and ACCEPTS were included most often by students in their top 3 strategies. Radical acceptance was recorded most often by students in their bottom 3 strategies.
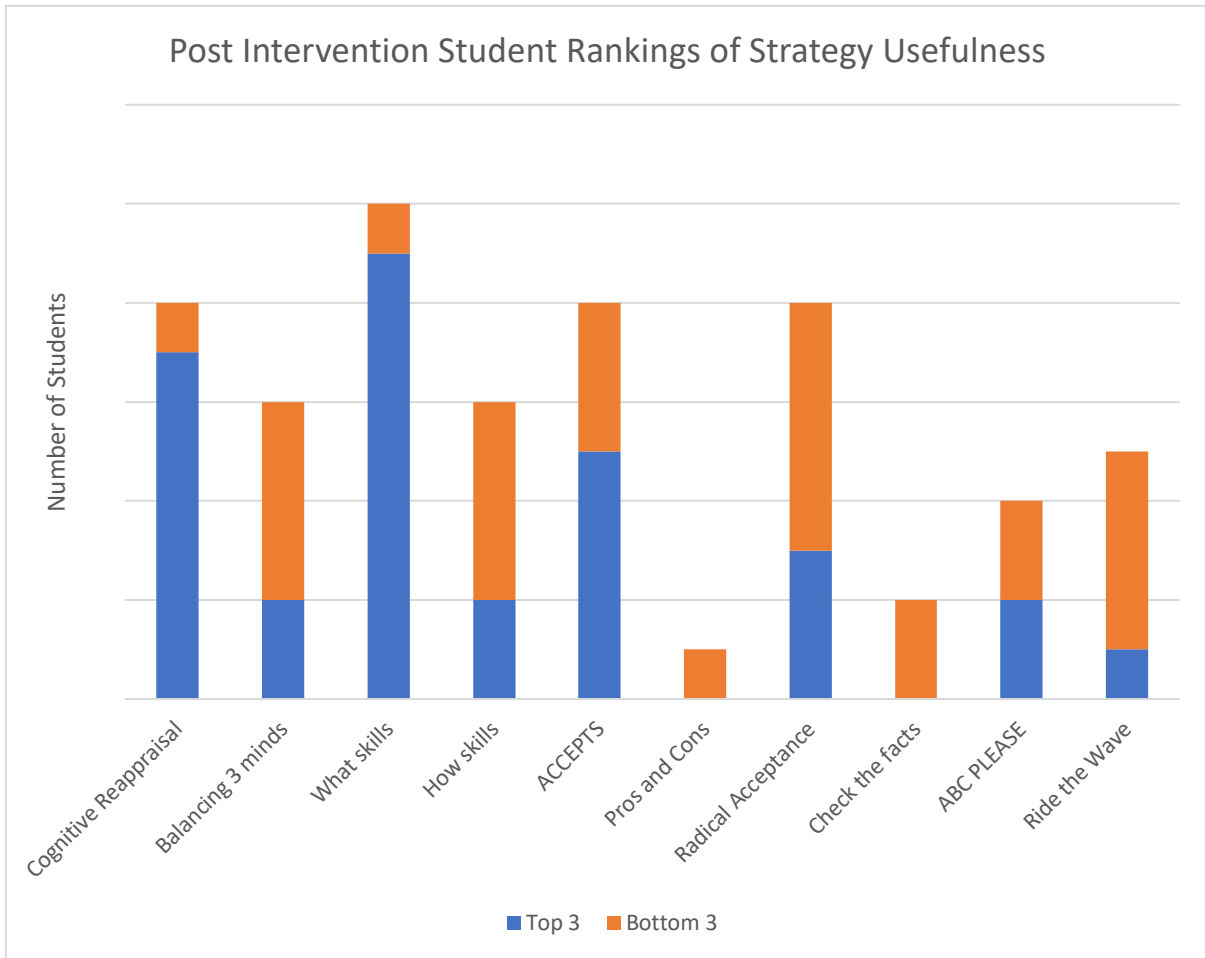
Figure 9: Post intervention student ranking of 'top 3' and 'bottom 3' strategies

4.1.3. Follow up measures

Responses to the 3 month follow up questionnaire were gained from 6 out of 10 participants. 100% of these responses indicated that participants felt better equipped to manage their emotional wellbeing and had acquired a range of strategies which could be used to support this following the intervention. In relation to frequency of strategy use, all respondents reported that they used cognitive reappraisal weekly and all but one respondent indicated that they used mindfulness what skills weekly.

In terms of the over-arching research question, the quantitative findings may be argued to provide some tentative indication of an impact of the intervention on coping skills. All measures (apart from the REL recovery sub-scale measure) showed change in a direction indicative of progress in skills development. However, the effect sizes (where calculated) were small and the design of the study precluded the use of inferential statistics. Therefore, the significance of the findings could not be assessed. The REA scale is most closely linked to ER

and the largest overall scale effect size was recorded for this scale. However, the small sample size and variation in effect sizes between the sub-scale components is noteworthy. Participant ratings of strategy usefulness highlighted those which were considered overall to be most or least useful. There was consistency of feedback gained during and post intervention in relation to the strategies perceived as most useful.

4.2. Qualitative analysis

The results from the process of conducting a thematic analysis of the qualitative data gained from student feedback on the diary Sheets, course feedback questionnaire and 3-month follow-up questionnaire are provided below. The codes identified from the thematic analysis led to the development of 3 over-arching themes, 7 themes and 16 sub-themes which were considered relevant to the key areas this research intended to explore. These are summarised in Figure 10.
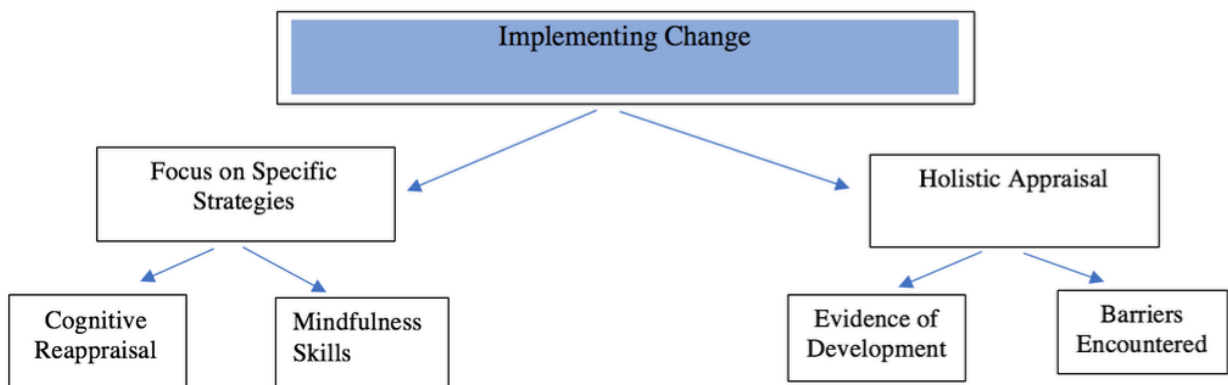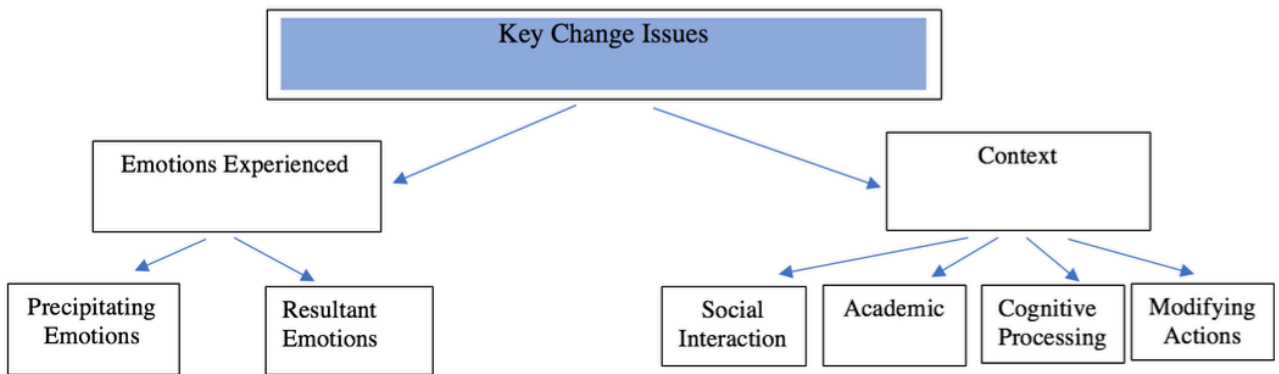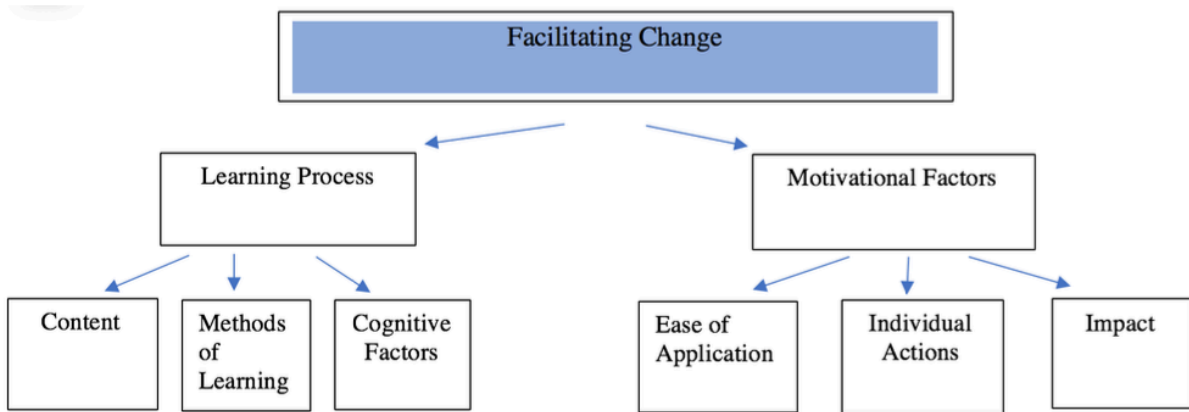
Figure 10: Thematic maps displaying all themes and sub-themes from analysis of the diary sheets, course feedback questionnaire and 3-month follow-up questionnaire

4.2.1. Research sub-question 1

What are the reported perceptions of students regarding their experience of the psychoeducation intervention?

A number of themes were developed which provided feedback regarding student perceptions of their experience of the psychoeducation intervention. A summary of the content of these themes with relevant quotations is provided in Table 5 below. Some of the key concepts in this section included student communication of enthusiasm for developing learning in this area, evidence of reflection on their own process of learning and identification of internal and external factors which facilitated change.

Table 5: Summary of findings for over-arching theme 1: facilitating change

Description of Over-Arching Theme		
This included information relating to the process of facilitating change and development which included experiences of learning a range of strategies and development of their flexible and individualised use by students.		
Description of Theme 1: Learning Process		
This included feedback that students provided on their experience of various aspect of the learning process.		
Sub-Theme	Description	Supporting Quotations
Content	Students indicated that the content covered was intrinsically interesting to them and identified ways in which it linked to or built upon current learning/experiences.	*I liked learning about the different ways stress can be reduced.* *I liked gaining an understanding of how I am able to control my emotions.* *I had prior knowledge and find Psychology as a subject really interesting.*
Cognitive Factors	Awareness of personal development of memory and understanding of the different strategies was frequently conveyed.	*I did not easily remember or understand these skills and therefore did not use them much.* *The observe skills I found very useful as it is easy to remember and use.* *They are the ones I used most, worked best and I understood the concept.*
	The benefits of practical activities to gain familiarisation with skills and the importance of recap	*Finding a collection of ways you can deal with stress levels.*

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Methods of Learning	and discussion of how skills had been applied by group members, in what context, was emphasised.	*I enjoyed the games/activities at the start..I was more comfortable to give answers/opinions in the session.* *Possibly more examples of how each skill works and more situations the skills could be applied to.*

Description of Theme 2: Motivational Factors

Factors which impacted on student motivation for learning were communicated.

Sub-Theme	Description	Supporting Quotations
Ease of Application	The importance of strategies being easy to use and not requiring pre-planning was frequently emphasised. Practice of strategy use promoted judgements on which fulfilled this criteria.	*They were easy to do in the way that they were convenient and required no planning and were relatively quick.* *I didn't end up using the pros and cons because I found making a table to be a task that I procrastinated.* *Able to use in the moment.*
Individual Actions	Students showed awareness of the impact of their own input on the progress of their learning and progress.	*They were the ones I used and remembered most as I missed a few sessions.* *Maybe if I try more times it would make a difference.* *The 3 how skills are still new to me so I'm still grasping the basics.*
Impact	The initial experience of skill use impacted on the likelihood of future use. There was evidence of increasing personalisation of skill-use and developing awareness of the preferred contexts for particular skills on an individual basis.	*I used the mindfulness skills again – only I did them more effectively.* *I used identifying thinking errors a lot as I found it helpful last week.* *I feel as if these are the skills I used most often as they worked for me.* *Most applied to my life.* *To find personal ways of dealing with stress that is best for you.*

4.2.2. Research sub-question 2

What are the reported perceptions of students regarding their use and experiences of the effectiveness of the strategies covered?

A number of themes were developed which provided feedback on student perceptions of their use and experiences of the effectiveness of the strategies covered. A summary of the content of these themes with relevant quotations is provided in Tables 6 and 7 below. Some of the key concepts in this section included frequent reference to stress/anxiety as being an emotion which motivated strategy use. Whilst this often related to academic pressure in early responses, an increasingly broad range of contexts was referred to as the intervention progressed. Student feedback provided evidence of their perception of cognitive reappraisal and mindfulness as key skills. Development of an individualised approach to use of the skills content covered became increasingly apparent over time.

Table 6: Summary of findings for over-arching theme 2: key change issues

Description of Over-Arching Theme		
This included information regarding the experiences, feelings and challenges which prompted individuals to use the skills.		
Description of Theme 1: Emotions Experienced		
Skill use was often described as being prompted by the experience of negative or uncomfortable emotions with the aim of achieving a change in internal emotional state to increase feelings of comfort/wellbeing.		
Sub-Theme	Description	Supporting Quotations
Precipitating Emotions	These included a description of negative emotional states as motivators for skill use and/or positive emotional states which skills use aimed to achieve.	*Used...when thinking I had upset teachers.* *Felt overwhelmed…so practised observe technique.* *I had to deal with a lot of stressful situations this week... able to use strategies to not become anxious and instead find practical solutions.* *I followed 3 minds...to regulate my mood...to calm myself following a stressful experience.*

		... I could not think how to apply it when stressed.
Resultant Emotions	Description of the impact of skill use on emotional experiences which were causing discomfort or distress.	*...allows you to focus on good things and forget about negative things, results in better, relaxed mood.* *... creates a calm, relaxed mindset and separates stress of the day.* *Accepting situations – not fighting the way things are if I cannot change them.* *Still felt slightly anxious...* *If emotions are high it may be hard to consider rational and wise mind.*

Description of Theme 2: Context

Participants often specified the context in which they had used particular skills providing insight into the experiences which prompted their desire to bring about change in emotional state.

Sub-Theme	Description	Supporting Quotations
Social Interaction	Skill use was described in a variety of social contexts including interactions with family, friends, college staff and other professionals.	*...in social situations with family or friends.* *Used after conversation with friends.* *At my doctor's appointment..* *During a debate in a group chat with friends.*
Academic	Pressure resulting from academic work was frequently described as requiring the use of coping skills.	*I used replacement strategies before my college lessons..* *I was catastrophising about completing college work...* *I especially used observe and describe which made me feel calmer .. about coursework.* *I used what skills the day before a Biology test...*
	The use of strategies to manage emotions relating to decision	*When making decisions about university.*

Cognitive Processing	making and to focus attention were described. Students demonstrated awareness and evaluation of skills which were potentially useful but where an appropriate context for use had not yet arisen.	*..focus on the task in hand.* *When assessing a situation before deciding on a course of action.* *... I would use them if the right situation occurred.* *... did not come across a situation where I wanted to use them.*
Modifying Actions	More general feedback identified use in situations where students wished to change behavioural responses.	*Not further any behaviour around my strong emotions at the time.* *To act in a more appropriate manner.* *Respond to situation in a more helpful way.*

Table 7: Summary of findings for over-arching theme 3: implementing change

Description of Over-Arching Theme
This described participants experiences of using the skills developed to achieve the changes they had identified as important to them. There was evidence of gradual development of an individualised, holistic approach to skill use.

Description of Theme 1: Focus on Specific Strategies
Cognitive reappraisal and mindfulness skills were frequently referred to in terms of specific skill use.

Sub-Theme	Description	Supporting Quotations
Cognitive Reappraisal	Participants described this as identifying thinking errors and using replacement strategies to alter the way in which they appraised a situation. Benefits of strategy use and difficulties experienced were highlighted	*I used replacement strategies to slow down..* *..used catastrophising to remind myself that it wasn't the end of the world..* *I find that blaming my thinking patterns for the way I feel is not helpful for me personally.*
Mindfulness Skills	Participants described this as using techniques to focus on the 'here and now' and achieve calmness and relaxation. Benefits of strategy use and	*Mindfulness skills – observe, describe and participate – create a calm and relaxed mindset.* *..and doing my best to deal with them in the present moment –*

| | difficulties experienced were highlighted. | *living in the now vs an illusory future.* |
| | | *How skills – not so effective as judgement is difficult to separate from a situation you are encountering.* |

Description of Theme 2: Holistic Appraisal

This related to evidence (particularly from the Post Course Feedback Questionnaire and 3 Month Follow-Up Questionnaire) indicating development of an integrated and personalised approach to employment of strategies and identification of particular contexts in which different skills were found to be effective.

Sub-Theme	Description	Supporting Quotations
Evidence of Development	Later feedback from students provided increasing reference to combined strategy use and their reflection on the usefulness of the 'whole skill package'.	*A more conscious use of the strategies and more confidence in the strategies I already used.* *I feel that I have become more aware of my emotions and therefore am able to apply strategies to manage them.* *I can find reassurance in being able to manage emotions effectively.*
Barriers Encountered	Described difficulties experienced in the use of particular strategies and frustration regarding the impact of strategy use in certain contexts.	*...it's difficult to keep my focus on one thing solely at a time.* *..just have had a lot of info in my lectures this week and my brain is fried.* *I tried to be non-judgemental about a situation I faced, this proved more difficult than I thought.*

5. Discussion

5.1. Integration of quantitative and qualitative findings

The quantitative data provided tentative preliminary indications that students may have benefited from strategy use over the course of the intervention. This concurs with qualitative feedback from over-arching theme 3 'implementing change' where there was some indication of an increase in confidence with personalised strategy use.

The small effect size recorded for the REL and small-medium effect size for the REA resiliency scales provides some indication that students experienced a gain in protective resiliency factors following the intervention. The REL scale aims to reflect the individuals' feelings of social relatedness. The REA scale relates to the ability to modulate or regulate emotional reactivity. Over-arching theme 3 'implementing change' provided some indication of students' perceptions of an increase in their ability to effectively manage their own emotions. However, the effect size for the overall MAS scale fell below the 0.2 level indicative of a small effect size, indicating no change in student feelings with regard to their ability to interact with, and enjoy, cause and effect relationships in their environment.

The largest sub-scale effect sizes were recorded for the MAS adaptability sub-scale and the REA impairment sub-scale. Adaptability reflects the ability to consider different options in problem solving. Qualitative feedback in relation to over-arching theme 2 'key change issues' provided an indication of participants reflecting on strategies and the appropriateness of their use in different contexts. Impairment is the degree to which a CYP is able to maintain an emotional equilibrium when aroused. The aim of the intervention was to provide students with a flexible range of strategies from which they could select those that they found to be most effective in supporting ER. The quantitative findings, combined with qualitative feedback, provide some tentative positive indications with regard to this aim.

The modified WHO-5 Wellbeing Index aimed to provide an independent college perspective on the impact of the intervention in promoting use of effective coping skills. Findings indicated an increase in mean ratings of wellbeing as measured on the simple likert scales. The extent to which this could be argued to provide an independent indication of development of student coping skills was limited by the simplicity of the design of the measure which consisted of eight likert scale responses.

Student ratings of the usefulness of the ten strategies covered provided some indication of those perceived to be most effective. Evaluation during the intervention and from the 3-month

follow-up questionnaire provided consistent feedback in this area. Cognitive reappraisal, mindfulness what skills and ACCEPTS were rated as most useful. Qualitative data gained from over-arching theme 1 'facilitating change' provided further insight into these findings. Participants found strategies that could be readily applied to their everyday lives, without the need for preparatory activities most useful. The importance of this consideration may also have contributed to student rating of check the facts and pros and cons as being least useful. Both these strategies required planned reflective activities which student feedback indicated reduced their likelihood of use. Students also engaged most readily with strategies which had been learned through practical activities and where significant repetition of explanation and consolidation of understanding had been gained.

5.2. Key findings and practical implications for educational psychology

The findings of this study may provide some preliminary indication of potential benefits of ongoing exploration of the extent to which positive initial findings from abbreviated DBT group skills programmes in US college counselling centres (e.g. Panepinto et al., 2015) may be applicable to post-16 students in the UK context. Delivery of small-scale demonstration programmes by specialist staff involving small samples is described by Shucksmith et al. (2007) as typical for many early interventions. They concluded that this was appropriate when interventions were initially introduced, particularly in relation to those targeting short-term stress and coping skills. The current study may also provide some indication of the potential for the extended EP role in FE to include support for the initial introduction and evaluation of interventions aimed to develop the coping skills of post-16 students. Morris and Atkinson's (2018) appreciative enquiry emphasised building resilience and supporting young people experiencing anxiety as key areas for focus in development of the EP role in the FE sector. One of the four agreed actions resulting from the 'dream' phase of their appreciative enquiry was to "offer a piece of therapeutic group work in one local FE college ... where the need for further support had been identified" (p.303). The current study may be considered as suggesting a potential means by which such exploration could be achieved.

Weare and Nind (2011) highlighted the importance of institutions only undertaking interventions that fit their context and which they can easily implement with fidelity and rigour. The planning process for this research involved extensive consultation with relevant college representatives to ensure that this requirement was fulfilled. The importance of extending EP support in a way that complemented or extended existing support structures was emphasised by Morris and Atkinson (2018). Involvement of college counselling staff and learning mentors

in planning and implementation of the intervention supported ongoing dialogue regarding planning for integration of such an approach into current support mechanisms. Benefits of joint working in this context are referenced by Rothi and Leavey (2006) who emphasised the need for provision of training and support for staff in effective implementation of such interventions by EPs. The potential for the EP role to address the priorities of staff training and provision of resources highlighted by the Association of Colleges survey (AoC, 2020) through involvement in such interventions is considered. Furthermore, joint working on such initiatives may support development of the EP role through providing a means by which exploration of the experiences and views of FE staff can be gained. Keegan and Murphy (2018) highlighted this as a key priority in order to inform appropriate development of EP practice and service delivery.

Durlak et al. (2011) highlighted two key variables which affected the degree of positive student outcomes resulting from emotional learning initiatives. These were implementation problems and adherence to four key criteria represented by the acronym SAFE (sequenced, active, focused, and explicit). Planning for implementation of the intervention maximised the extent to which these priorities were addressed. Implementation problems were minimised through detailed planning and careful reflection on key factors which may be experienced as barriers to progress (e.g. location and ambience of learning environment). A focus on adherence to the four SAFE recommended practices was also prioritised in the planning process. Qualitative feedback referred to the importance of active learning experiences in consolidating learning.

Quantitative ratings of participant perceptions of the usefulness of strategies covered, combined with the three over-arching themes identified from the qualitative data, provided feedback relating to participant experiences of different aspects of the intervention. This supported modification of future content in line with Flynn et al.'s (2018) emphasis on the need for extensive tailoring of programme content and design to the particular delivery context prior to wider scale implementation. Development of an intervention which students experienced as participatory, combined with meaningful and supportive relationships with professionals, has been identified as influential in encouraging students to access available services (Apland et al., 2017). Atkinson and Martin (2018) highlighted the EP role in evaluating interventions. The potential for the EP role to support modification of programme content based on student feedback to maximise participatory evolution of design is considered in relation to this intervention.

Qualitative and quantitative feedback highlighted students' perception of the usefulness of cognitive reappraisal techniques and their preference for learning through practical experience

of strategy use. This aligns with Weare and Nind's (2011) review of mental health interventions in schools which strongly supported the efficacy of skills development using Cognitive Behavioural Therapy (CBT) approaches. The review also endorsed use of holistic, educative, and empowering theories and interactive pedagogical methods.

Quantitative ratings of strategy usefulness during the intervention were consistent with feedback from the 3-month follow-up questionnaire in identifying mindfulness what skills, cognitive reappraisal and ACCEPTS as the most useful strategies. It may be argued that this aligns with Webb et al.'s (2012) findings that reappraising the emotional stimulus, perspective taking, and active distraction are most effective in dealing with feelings. Ratings of usefulness for mindfulness what skills may support emerging research which highlights the efficacy of mindfulness and suggests that it may play a mediating role between student anxiety and drop-out intention (Carsley et al., 2017). Student retention was identified by Warwick et al. (2008) as a key priority within the post-16 sector. The potential for such interventions to contribute to progress in this area and provide evidence of the added value of EP work is recognised.

Quantitative ratings of strategy usefulness during the intervention indicated 'check the facts' and 'pros and cons' were experienced as being least useful. This may be understood in relation to qualitative feedback which indicated that participants found strategies that could be readily applied to their everyday lives, without the need for preparatory activities most useful. Both these strategies required more formal reflective activities which student feedback indicated reduced their likelihood of use. This may relate to Gross and John's (2003) finding that strategies to modulate responses may be used consciously but are often automatically executed without much conscious awareness or deliberation.

Lougheed and Hollenstein (2012) found that the use of a range of ER strategies rather than singular 'adaptive strategies' are associated with lower levels of depression, generalised anxiety, and social anxiety in adolescents. Providing students with a range of strategies from which they could select those that they experienced as most effective was a key objective of this intervention. All strategies were rated as useful by some students and there are a range of possible explanations (e.g. time spent on teaching, mode of teaching, specific experiences encountered by students during the period of the intervention) for the lower usefulness ratings of some strategies. This highlighted the importance of consideration of a number of factors including: optimal range of strategy coverage; time/practical constraints; and importance of sufficient time allocation to strategy explanation, practice, activities, reflection, and review; in decision making regarding intervention content. The EP role in supporting explicit

consideration of these factors in relation to the characteristics of the particular intervention group is highlighted. This has the potential to facilitate modification of programme content in line with Pawson and Tilley's (1997) emphasis on what works for whom and in what circumstances.

5.3. Strengths and limitations

A strength of the research was its' mixed methods design. The quantitative data contributed to understanding of the overall impact of the intervention. The fact that this was a preliminary study highlighted the importance of generating qualitative data to provide deeper understanding of participant responses to contribute to ongoing development of the intervention. Breen and Darlaston-Jones (2010) emphasised the importance of undertaking evaluation in the specific context within which an intervention is embedded and gaining feedback relating to participant experiences to inform effective programme development. The design of the study was congruent with this emphasis.

A key issue for consideration is that of researcher bias. The researcher developed, implemented, and evaluated the intervention. This raised a number of sources of potential bias. Demand characteristics may have compromised the validity of the data. Participant responses may have been influenced by feeling that they wished to help or hinder the researcher. The significance of this issue was exacerbated by the fact that the researcher delivered the intervention. This resulted in the development of relationships with participants which were likely to have influenced responses. Researcher evaluation, particularly of the qualitative data, through the method of thematic analysis may have been subject to bias. Whilst the semantic thematic analysis used in this research is less prone to issues of researcher bias than latent thematic analysis (Braun & Clarke, 2006), this issue is still significant. However, it may be argued that overlapping responsibility for development, implementation, and evaluation processes is representative of the real-life context in relation to the EP role. Donnelly et al. (2020) may be considered to provide support for this argument. They found that secondary school staff expressed a preference for developing social and emotional skills interventions with partners, reported greater reliance on their own experience rather than published research and communicated satisfaction with methods of evaluation based on pupil feedback. A genuine and shared commitment to ongoing modification of interventions to improve efficacy may be argued to provide a realistic means of achieving high quality interventions in the real world. This relies on an emphasis on realist cyclical evaluation (Pawson & Tilley, 1997) rather than aiming to allocate impartial responsibility for each element of the process. It may be argued

that this concurs with Breen and Darlaston-Jones' (2010) emphasis on the need to "provide meaningful sustainable solutions for complex human issues" (p.67). Gaining depth of understanding of the experience of those participating in interventions may provide critical feedback to inform ongoing evolution of programme design and delivery.

Limitations of the study included the lack of a control condition, small sample size, and reliance on self-report data. The results were therefore descriptive. Whilst improvements in outcome measures were recorded, the significance of these changes could not be established. Neither could improvements in outcome measures be attributed with confidence to the intervention. Self -report data was collected at specified time points which did not coincide with participant real life experiences of events which prompted them to use strategies. Their memory of their responses may therefore have been inaccurate or influenced by social desirability bias. The sample of participants was small and gained through volunteer sampling. Participants who volunteer may not be representative of the target population. For example, they may be more committed to completion of the intervention or more positive about the potential benefits of such an intervention.

There were a number of limitations relating to the outcome measures used in this research. Diary sheets were used to collect qualitative and quantitative data during the course of the intervention. Ratings of strategy usefulness were based on completion of these feedback sheets. However, the number of times each strategy was rated varied from one to four depending on its order of coverage in the intervention sessions. Furthermore, more time was spent on those strategies covered in the early sessions and consolidation of learning occurred throughout the remaining sessions. These factors may play a large part in explaining lower ratings of usefulness for strategies covered in later sessions. Limitations of measures are discussed in further depth in Part 3.

5.4. Further research

It is suggested that this research provides some positive preliminary indications that a psychoeducation intervention based on DBT principles and techniques may contribute to development of ER skills in post-16 students. Student feedback provided insight into ways in which the intervention may be modified and tailored to further develop its' efficacy. Further research may include:

- Preliminary research into the effectiveness of such an intervention in a wider range of post-16 settings and with different student types.

- Modification of course content in line with student feedback to focus on the strategies rated as most useful and an increase in learning through practical activities to consolidate skills development.

- Investigations using control conditions, larger sample sizes and random assignment to further develop the evidence base.

- More focused research to gain greater depth of understanding regarding the impact of such an intervention on the day to day ER experiences of one or more participants. This would allow fuller exploration of the contextual factors which influence selection, use and effectiveness of strategies.

- Longer term follow-up evaluation to explore the extent to which strategies covered were retained and utilised over time.

- Research which aimed to overcome the issues of demand characteristics associated with the current design through collection and analysis of evaluative data by an independent researcher.

- Research which aimed to overcome issues with collection of self-report data at a different time to that when ER strategies were required or used. For example, use of digital methods or mobile phone technology to record responses in real time.

- Research which compared the relative usefulness of interventions focused on one or more of the four different DBT group skills training modules (i.e. mindfulness, distress tolerance, ER, and interpersonal effectiveness skills) to promote understanding of the contexts within which differential emphasis on module content may be beneficial.

5.5. Summary and conclusions

Rizvi and Steffel (2014) suggested that the low cost and limited staffing required of abbreviated DBT group skills training may be an efficient and effective way to improve mental health outcomes and academic performance for institutions facing increasingly small allocations of money for such services. DBT principles and techniques may be considered to provide person-oriented ER strategies which involve flexible accommodation of motivational, cognitive, and affective systems to contextual demands to achieve long-term benefits (Koole, 2010). Preliminary findings of this research provide some initial support for further exploration of the usefulness of a psychoeducation intervention based on DBT principles and techniques in promoting ER for post-16 students. The role of EPs in facilitating such exploration is considered

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PART 3: CRITICAL REVIEW

1. Introduction

The critical review offers a narrative of the researcher's reflections on the process of conducting the research, from inception to completion. In Part A, the rationale for conducting research into a psychoeducation intervention to develop the emotion regulation skills of post-16 students is discussed. The decision to undertake a narrative literature review to explore relevant research in this area is considered. This is followed by a critical examination of methodological decisions made throughout the research process. The ethical implications of the research, measures and methods of analysis are critically reviewed. The impact of the epistemological and ontological positions underlying the research are considered in relation to decision making processes.

In Part B, the potential contribution of the research to development of knowledge in this area is discussed and the implications for young people, educational settings, and educational psychologist (EP) professional practice are explored. Potential areas for further research are highlighted and plans for dissemination of the research findings outlined. The researcher's reflections on the research process from the position of a trainee educational psychologist (TEP) are referred to throughout.

The account is written in the first person, reflecting this section of the thesis as offering a reflexive perspective into the formulation and conduct of the research and development of the research-practitioner.

2. Part A: Critical Account of Research Practitioner

2.1. Rationale for the thesis

Prior to beginning the Doctorate in Educational Psychology (DEdPsy) programme I had substantial experience of teaching Psychology A level to post-16 students in both further education (FE) and school settings. My roles also involved pastoral responsibility for students in this age group. Through this involvement I became increasingly aware of the issue referred to as "the missing middle" (WG, 2018), described as students who were experiencing significant psychological distress but did not meet the criteria for specialist support. Provision for such students was patchy and often involved significant time delays. The impact of delays in gaining support for wellbeing, academic progress and retention were evident. The opportunity to further develop understanding of options for addressing the gap in provision I had witnessed throughout my teaching career was foremost in my mind when considering a topic for thesis research. I was very aware of the practical constraints to be considered in planning realistic options. A group psychoeducation intervention was appealing in terms of its' potential for efficient provision and preventative focus. My interest in the application of dialectical behaviour therapy (DBT) principles and techniques to support delivery of a psychoeducation programme in this context initially stemmed from a reference to Fleming et al.'s (2015) study in a WG guide to evidence-based attention deficit hyperactivity disorder interventions (WG, 2019). This led me to further investigate DBT group skills and their application in educational contexts.

I was interested in 'third wave' interventions due to the increased flexibility and range of strategies they appeared to offer as compared to a purely cognitive behavioural therapy (CBT) focus. Whilst there is evidence to support the effectiveness of interventions based on CBT (e.g. Weare & Nind, 2011), a frequently cited criticism of the approach is the argument that it involves a mechanistic focus on the impact of cognitions on emotional responses (Hofmann & Asmundson, 2008). It is suggested that this involves an assumption that negative emotional responses are due to an unrealistic assessment of the situation (Hofmann & Asmundson, 2008). It may be argued that this assumption also underlies more recent developments in Positive Psychology which focus on the power of positive thinking. Interventions which combine aspects of both approaches such as Teismann and Willutzki's (2017) pilot evaluation of a CBT intervention module based on the personal model of resilience developed by Padesky and Mooney (2012), provide evidence for this argument. Ehrenrich (2010) highlighted the problem

of this ideology in failing to acknowledge the role of adverse circumstances in the experience of emotional distress. Inclusion of strategies aimed at distress tolerance may be argued to address this criticism in acknowledging that distressing emotions may result from experiences that are highly challenging. Encouraging an individual to question their response and reframe such experiences in a positive light may be unrealistic and fail to take account or acknowledge the impact of their challenges (Ehrenrich, 2010).

My review of the application of DBT group skills to educational contexts provided evidence of an emerging body of research in the post-18 University sector in the US. This predominantly focused on students attending counselling centres and identified as in need of more specialist input. However, a small number of studies (e.g. Panepinto et al., 2015) investigated application of an intervention based on DBT group skills to increase coping skills within the general student population. In the UK context there was very limited relevant research. This highlighted the potential for research in this area to contribute to a gap in the literature.

Morris and Atkinson (2018) highlighted some key considerations for EPs in extending their practice to post-16 settings. These included the potential value of working with a link person or team and extending EP support in a way that complemented or extended existing support structures. Atkinson et al. (2015) emphasised the need for EPs to prove the added value of their work in contributing to organisational development priorities such as student retention (Allen, 2012). My previous experience of working in the FE sector had given me a secure understanding of existing support structures and the challenges associated with retention in the post-16 sector. This knowledge base supported my initial planning for an intervention which would be considered to have the potential for adding value whilst being practically achievable. It also supported effective dialogue and joint collaboration with college staff in relation to more detailed planning for the implementation of the intervention.

2.2. Methodological considerations

My previous experience of methodology focused heavily on a positivist stance which indicated that reality can be measured and a 'truth' uncovered, often using quantitative methods and relying on statistical analysis (Pawson & Tilley, 1997). My experience of teaching A level Psychology reflected this stance. Whilst qualitative methods of research were covered in specifications, there was little exploration of the arguments underlying selection of methods. The overriding impression was of the superiority of randomised controlled-trials (RCTs) which generated quantitative data. These could be used to establish causal relationships providing the basis for evidence-based decision making regarding appropriate interventions.

The DEdPsy programme introduced me to the concept of social constructionism (Burr, 2015). Its' emphasis on the existence of multiple truths and taking a critical stance towards taken for granted knowledge resonated closely with my own perspective and life experience and has had significant influence on my practice as a TEP.

Further exploration of ontology and epistemology and its' implications for my doctoral research experiences has contributed to development in my thinking. Maxwell and Mittapalli (2010) highlighted the limitations of traditional positivist research in its lack of success in discovering "law-like regularities" (p. 155) in the field of social sciences. Critical realism (Bhaskar, 1975) appealed as a stance that accepted the existence of an independent reality but emphasised that knowledge of this reality could only be gained through the perceptions and perspectives of others. Therefore, it accepts the existence of multiple truths. Maxwell and Mittapalli (2010) emphasised the benefits of realist process oriented qualitative investigations in developing understanding of the "actual causal mechanisms and processes that are involved in particular events and situations" (p.156). Critical realism is proposed as a philosophical stance which is compatible with both qualitative and qualitative research (Maxwell and Mittapalli, 2010). It addresses concerns regarding the importance of consideration of the particular context within which interventions in the real world are implemented to gain realistic understanding of their impact (Breen & Darlaston-Jones, 2010). The above informed my choice of a mixed methods design which aimed to gain understanding of participants perceptions during the course of the intervention, at the end of the intervention and after a 3-month period had elapsed.

2.3. Literature review

Collins and Fauser (2005) suggested that the narrow focus and prescribed methods of the systematic literature review may, for some review topics, impede comprehensive coverage. In such areas they argued that less explicit methods are the trade-off for broader coverage. Due to the very limited previous research involving the use of DBT principles and techniques to support development of coping skills in UK educational settings, and the wide range of potentially relevant areas of research, I decided that the benefits of a narrative literature review outweighed its limitations for this research. Previous research in educational settings had focused primarily on the US context, post-18 college students and therapeutic as opposed to preventative aims. Initial scoping identified a wide range of potentially relevant research areas and highlighted the importance of prioritisation of those considered most useful in supporting

this relatively new area of research. A narrative literature review was therefore selected to support:

- review of the context for emotional skills development in the school-based sector in providing a basis for adaptation of EP knowledge and skills to the post-16 sector;
- exploration of the potential to expand the EP role to support the post-16 sector in further developing the emotional skills of young people using a psychoeducation intervention based on DBT principles and techniques.

Clegg (2005) argued that systematic reviews "encapsulate the ideal of the randomised controlled trial (RCT) as representing the 'gold standard'" (p.417) and are heavily influenced by the bio-medical agenda and positivist traditions. It may therefore be argued that a narrative literature review which supports the legitimacy of decision making based on "professional wisdom" (Clegg, 2005, p.417) rather than weight of evidence is more compatible with a critical realist research stance. The reliance on "professional wisdom" (Clegg, 2005, p.417) for selection of research resulted in a number of ongoing considerations with regard to the impact of decision making on the quality of the final version of the literature review. These included aspects of coverage which may have benefited from being condensed, such as the historical development of emotion regulation strategies in section 3.5 and/or the overview of relevant terminology and theoretical perspectives in section 2.1. A reduction in focus on historical material would have provided the scope for inclusion of current research relating to non DBT based interventions to support development of emotional skills in UK post-16 educational settings. This would have facilitated consideration of the extent to which interventions with similar underlying theoretical bases had been applied in this sector, and the insight which could be gained from evaluative research conducted in this context.

2.4. Ethical considerations

Application of DBT group skills principles and techniques in a psychoeducation intervention with a preventative as opposed to therapeutic focus, resulted in a different approach to the integration of group dynamics into the learning process. DBT group skills applied in therapeutic contexts with clinical populations emphasise the key role of group dynamics in achieving positive outcomes (e.g. Cavicchioli et al., 2020). Individuals within the group provided mutual support for skills development through shared exploration of experience of strategy use. In the current study context, risk of harm to participants through the experience of sharing sensitive material in the group setting was carefully considered in session planning.

As an external researcher I was unfamiliar with the students who had volunteered to take part in the intervention. I felt it was a high priority to ensure that, as a minimum, participants did not experience any adverse consequences/decrease in wellbeing due to their involvement. Participants were informed in the initial individual session that information shared within the group setting should be kept confidential but that this could not be guaranteed. They should therefore consider the sessions as normal classroom learning experiences in terms of decision-making regarding disclosure of sensitive material. During the sessions, participants were encouraged to use hypothetical examples or less significant real-life experiences when discussing strategy use. These guidelines placed some constraint on the extent to which individuals within the group benefited from sharing of learning experiences. This was an aspect of the research which I reflected upon at the time, and continue to consider, in terms of the appropriate balance between protection from harm and the right to autonomous decision-making regarding appropriateness of disclosure in post-16 students. I feel that it is an area for careful consideration in relation to the work of EPs in the post-16 sector, particularly with regard to group-based work/interventions. The benefits/costs associated with such interventions being undertaken by external professionals (e.g. EPs) as opposed to college staff is a related area for consideration.

My initial application to the university ethics committee for approval for my thesis research was returned with a couple of requests for amendments. One of these was to specify how I would deal with a disclosure where a student indicated that they were subject to harm or at risk of harm. Student completion of the pre-measure resiliency scales provided feedback from one student who indicated that she frequently hurt herself. I discussed this issue with my supervisor and we agreed an appropriate response. Key factors to consider were the implications of her age and the fact that she had disclosed this information with the understanding that the purpose of the measure was to contribute to evaluation for a research study as opposed to being part of a therapeutic process. This experience led me to consider some of the key areas of difference in terms of ethical considerations associated with the role of the EP in the post-16 sector. I had gained consent from student participants and their parents for involvement in the project. Since all participants were over 16 years, parental consent was not essential. My decision was influenced by the preference of college staff to obtain parental consent which may have played an important role in gaining initial college gatekeeper approval for my research. My personal experience of working with this age-group and the understanding this had given me of the key role of parent/guardian support for transition to adulthood also influenced this decision. No

participant expressed concern or questioned the requirement for parental consent. However, it may have deterred some individuals from volunteering to participate and could have a more significant impact in both practical and participatory terms for involvement in alternative interventions. These experiences highlighted new complexities in relation to consent, confidentiality and protection from harm associated with the EP role in the post-16 context.

A further ethical consideration related to arguments (e.g. Lench & Carpenter, 2018; Ein-Dor & Hirschberger, 2018) which suggested that the current emphasis on developing strategies to reduce negative emotion and promote positive emotion is based on prioritisation of life aspirations such as feeling good over the primary function of the emotion system which is to promote survival. They emphasised the benefits of varied emotional experiences and highlighted the influence of cultural values on prioritisation of concepts such as emotional wellbeing. I considered the importance of the concept of social constructionism (Burr, 2015) and historical and cultural specificity in relation to an underlying assumption of the beneficial effects of developing strategies to support emotion regulation (ER). This led me to reflect more widely on the distinctive contribution of the EP role. Cameron (2007) highlighted adopting a psychological perspective as a key distinctive contribution of the EP role. Adoption of an eco-systemic perspective involving consideration of a variety of contextual, personal, and interpersonal variables is emphasised. The work of EPs will necessarily be influenced by cultural and historical norms and values. However, the importance of maintaining an awareness of the impact of these factors and identifying and validating alternative perspectives may be considered a distinctive contribution of the role.

2.5. Data collection, analysis, and interpretation

A number of outcome measures were used to collect qualitative and quantitative data. Resiliency scales (Prince-Embury, 2011) were the only standardised measure used to collect quantitative data. Evidence of the technical quality of this test, in terms of reliability and validity, was reviewed by the researcher and considered acceptable. The decision to use resiliency scales (Prince-Embury, 2011) reflected the psychoeducation and preventative, as opposed to therapeutic, focus of the study. Participants were volunteers who expressed interest in developing their coping skills, as opposed to individuals who met set criteria for psychological intervention. It was felt that the resiliency scales (Prince-Embury, 2011) provided a measure of the impact of the intervention on the broader personal skills associated with practice of ER strategies. The resiliency scales may also be considered a less direct measure of the impact of the intervention. This may have increased the validity of findings

through reducing demand characteristics since items were not as directly related to content of learning. Participants would therefore have experienced more difficulty in predicting desirable or undesirable responses. However, a wide range of factors could have affected responses on this broader scale and changes could therefore not be attributed to the intervention. Emphasis on a measure which focused on development of resiliency may be considered to be supported by Verzeletti et al. (2016) who argued that ER is a central aspect of people's affective functioning which has a key influence on well-being. They highlighted the role of inappropriate regulation in lowering resilience to stressful events. This measure was used by Wayne (2018) in her application of DBT principles and techniques to development of coping skills in secondary school pupils in the US.

The DBT Ways of Coping Checklist (DBT WCCL) (Neacsiu et al., 2010) was used in this study in modified form. The decision to modify the checklist was taken to shorten the time taken for its' completion, to simplify the language used in the questions, to replace 'Americanised' vocabulary with more familiar terminology and to exclude questions which were judged to have limited relevance to the target population. However, this compromised the psychometric properties of the scale. Many of the studies investigating the impact of abbreviated DBT group skills training on US college students included in the literature review (Rizvi & Steffel, 2014; Panepinto et al., 2015; Muhomba et al., 2017) used the same outcome measures. These were the DBT WCCL (Neacsiu et al., 2010) and the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Use of alternative measures in the current study decreased the extent to which comparison in findings (e.g. effect sizes) could be made. Such comparisons would have given a better sense of the meaningfulness of the effect sizes reported.

A modified form of the World Health Organisation 5 Wellbeing Index (WHO5; WHO, 1998) was used to gain an independent college perspective on the impact of the intervention. This provided a simple likert scale measure of pre and post wellbeing from the perspective of a member of college staff who was judged to know the student well. Pre-ratings were completed for all 10 participants. However, post-ratings were completed for 8 of the 10 participants and therefore ratings for 2 participants were excluded from the analysis. It was not possible to establish the reasons for the missing data since the contact staff member for this data was not available post-covid-19 lockdown when analysis was undertaken. Staff members who completed the ratings were aware that the student involved was participating in an intervention and that ratings were being used for evaluative purposes. Therefore, demand characteristics

may have influenced responses. However, as with all pre and post measures, completion of the post- measure was carried out more than 8 weeks after completion of the pre-measure. It may therefore be argued to be unlikely that an individual would retain the memory of their response to the initial measure that would be necessary to ensure that a more positive (or negative) response was recorded for the post measure. However, there was no evidence to indicate that changes to well-being recorded could be attributed to the intervention. Therefore, this measure may be considered to have limited value in contributing to understanding of the impact of the intervention.

Limitations in the ability to assess the meaningfulness of resiliency scale effect sizes through comparison with similar studies using this measure, combined with compromise of the psychometric properties of the DBT WCCL (Neacsiu et al., 2010) and the WHO5 wellbeing checklist (WHO, 1998) due to their modification, resulted in significant limitations to the validity and reliability of the quantitative data measures.

Collection of both qualitative and quantitative data through participant completion of the diary sheets, post intervention course feedback questionnaire and 3-month follow-up questionnaire was used to develop understanding of the factors that contributed to participant experiences of the strategies as useful or not useful. Semantic thematic analysis (TA) of participants qualitative feedback was used to identify over-arching themes and sub-themes. It is acknowledged that in relation to latent and semantic analysis, TA typically focuses exclusively on one level (Braun & Clarke, 2006). Semantic TA is perceived to be a less subjective form of TA (Braun & Clarke, 2006). Adoption of Braun and Clarke's (2006) approach to TA is referred to as a "reflexive" version of TA (Braun & Clarke, 2020, p.6). The quality of the TA conducted was reflected upon with reference to the 20 critical questions proposed by Braun and Clarke (2020) for this purpose. Reflections included those indicative of quality reflexive TA, for example in relation to question 17 (Braun & Clarke, 2020), where it was perceived that reported themes had "the potential to give rise to actionable outcomes" (p.18). However, consideration of question 20 (Braun & Clarke, 2020) highlighted issues with regard to "problematic statements about the lack of generalisability of their results" (p.19) and complexities raised in relation to this question in the context of a mixed methods design which included pre and post quantitative measures.

Whilst undertaking the thematic analysis and considering appropriate labels for over-arching themes the relevance of the Constructionist Model of Informed and Reasoned Action (COMOIRA) (Gameson & Rhydderch, 2008) in providing a structure for understanding the

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mechanisms and contexts that impacted on students' experience of the intervention became increasingly apparent. Labels drawn from the COMOIRA decision points (Gameson & Rhydderch, 2008) were therefore used to structure participant feedback in a form which would support development of understanding of what works for whom and in what circumstances. It may be argued that this approach aligned with Pawson & Tilley's (1997) conceptualisation of the realist evaluation cycle (Figure 11). Application of COMOIRA (Gameson & Rhydderch, 2008) decision points supported the process of deductive analysis in drawing upon the mechanisms and contexts which impacted on participants experience of use of DBT based strategies.

Mechanisms   (M)
Contexts   (C)
Outcomes   (O)

What works for whom in what circumstances

Theory

Program specification

Hypotheses

Observations

What might work for whom in what circumstances

Multi-method data collection and analysis on M, C, O
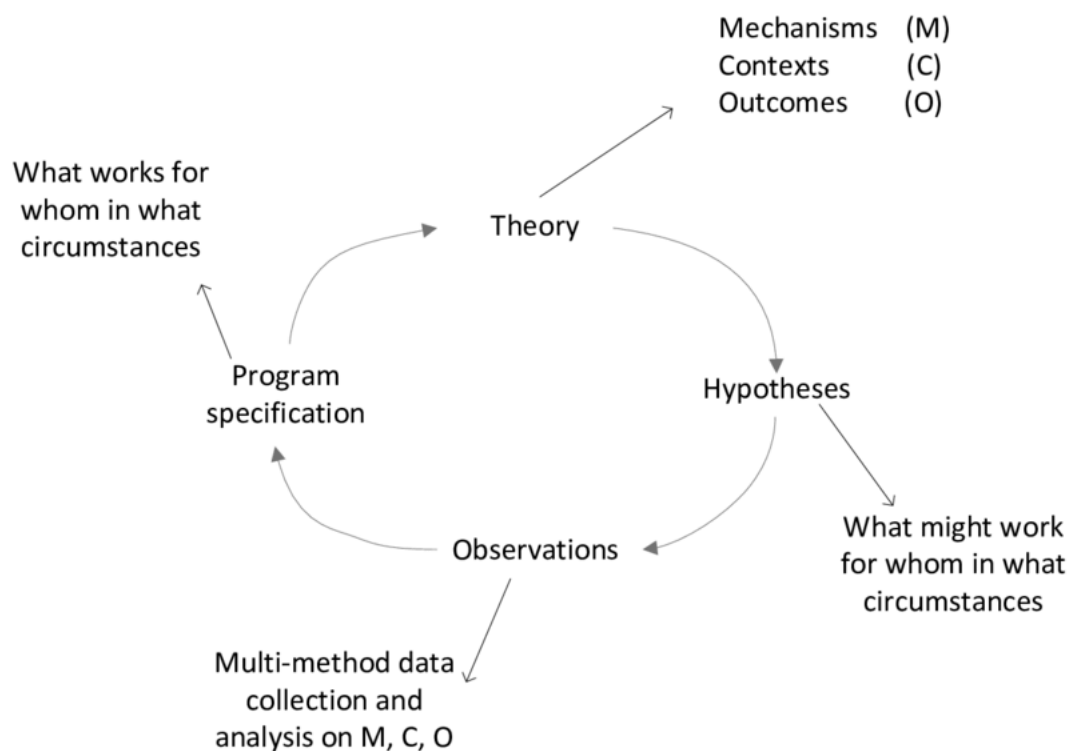
Figure 11: The realist evaluation cycle (Pawson & Tilley, 1997)

3. Part B: Contribution to Knowledge

3.1. Contribution to the literature

My literature research confirmed that there was very limited research investigating the application of DBT group skills techniques and principles to the UK education context. The current research was small-scale and exploratory. It aimed to provide some initial feedback on post-16 FE students perceptions of the usefulness of DBT based strategies covered in a series of 8 psychoeducation sessions. A mixed methods approach supported exploration of the factors which impacted on participants experience during the course of the intervention and after a 3-month time elapse. This contributed to development of understanding of how the course content and delivery could be modified to increase its' effectiveness in line with Pawson and Tilley's (1997) emphasis on identification of the mechanisms and contexts relating to specific outcomes.

There were examples of previous research in the US context which focused on coverage of only 2 of the 4 DBT skills areas in abbreviated programmes (e.g. Muhomba et al., 2017). Participant ratings of strategy usefulness in the current study highlighted cognitive restructuring, mindfulness what skills and ACCEPTS as those perceived to be most useful. Such feedback may inform future decision making with regard to abbreviated coverage. However, it is noteworthy that there was a tendency for strategies covered in later sessions to be rated less useful than those covered in earlier sessions (strategies were covered in the order of their presentation in results tables). Implementation of the planned intervention was undertaken for the first time in this research. Therefore, planning of session content coverage relied on estimates of timings which were found to be overly optimistic. This resulted in some pressure to increase the rate of coverage as the sessions progressed which led to a decrease in time devoted to explanation and coverage of later strategies. It also impacted on the extent to which practical activities and repetition were employed to consolidate skills acquisition for those strategies. The above highlighted the need to reduce content coverage in order to achieve more securely embedded skills acquisition. I reflected on the importance of balancing the priority of reduction in programme content with the aim of delivering a range of strategies to support students in selecting those which they judged to be most suitable based on individual preferences and needs. The appropriateness of this aim was supported by the fact that each strategy was judged to be useful by at least 2 students.

Student feedback also clearly emphasised the importance of being able to apply strategies acquired without further individual planning or preparation. This supported the decision not to set formal homework tasks and to consider the sessions themselves as the main source of strategy acquisition for participants. Participants were, however, asked to practice use of strategies acquired between sessions. Feedback from the diary sheets indicated that they were motivated to achieve this if the relevant strategy was securely embedded/ready to use in their real-life context. Participants indicated that the necessity of spending time in refreshing strategy knowledge or preparing plans for strategy use discouraged them from attempting to use the particular strategy. Such feedback may contribute to decisions regarding selection of strategies for delivery in terms of their requirement for pre-planning.

Keegan and Murphy (2018) highlighted limitations in research relating to the EP role in post-16 settings. The current research aimed to explore issues relevant to adapting EP current school-based knowledge and skills to post-16 settings. Changes to the legislative context provide clear opportunities for EPs to develop their role in this sector. Fallon et al. (2010) emphasised the potential contribution for EPs in working alongside other professionals to promote mental health and wellbeing in this crucial period of preparation for increasing experience of adult independence. Integration of elements of consultation and training as part of the research process in this setting provided insight into the systemic context and the potential longer-term EP contribution. It highlighted the effectiveness of the EP role as research-practitioner and the gradual evolution of support for organisational priorities which could result from such involvement.

3.2. Contribution to young people and educational settings

The literature review summarised key arguments to support the priority of developing effective strategies to promote the emotional wellbeing and mental health of adolescents prior to their move to increasing adult independence. The potential role for educational settings in contributing to this priority is increasingly recognised. Gradual development of a research base which explores the effectiveness of a range of initiatives to support this aim in post-16 settings will promote effective decision-making in a resource limited context. The current research provides some initial, exploratory findings in relation to a brief psychoeducation intervention. It highlights some limitations associated with an exclusive focus on RCTs as the only means of providing an evidence base to support decision-making in relation to effective interventions. It aims to reflect the complexities associated with evaluation of real-life interventions through

a focus on development of understanding of the relationship between contexts, mechanisms, and outcomes (Pawson & Tilley, 1997).

3.3. Contribution to further research

The current research was exploratory and the findings only begin to develop understanding of the issues to be addressed in designing and implementing an intervention to support development of ER coping skills in post-16 students. Further studies could modify the programme content and delivery in line with participant feedback and replicate the intervention with a larger number of participants to assess the impact of further development of the current approach. Consideration may also be given to shared delivery with college staff to support more widespread application of the intervention.

The current research gained qualitative feedback from participants using diary sheets completed at the beginning of 4 of the sessions and a 3-month follow-up questionnaire. Use of the diary sheets allowed feedback to be collected at the planned psychoeducation sessions without the requirement for students to attend additional appointments. This was judged to play a role in supporting management of the retention concerns highlighted in relation to the research. However, further research may gain greater depth of understanding through use of semi-structured interviews or focus groups. Use of the diary sheets also meant that students were providing retrospective, self-report feedback regarding strategy use. The extent to which this reflected their actual experience may be questioned. Further research may involve use of digital methods to gain real-time feedback regarding strategy use. There was an attempt to triangulate findings using modified WHO5 wellbeing scales completed by a member of college staff. However, it may be argued that this measure added limited value. In an FE context, the extent to which individual students are 'known well' by any staff member is highly variable. Further research may use alternative methods (e.g. semi-structured interviews with parents/guardians and/or peers) to develop meaningful understanding of mechanisms, contexts and outcomes. Bergold and Thomas (2012) highlighted the value of participatory research methods in supporting co-construction of experiences and meanings. They indicated the congruence between participatory research strategies and action research in supporting a joint process of knowledge production. Adoption of such an approach has the potential to facilitate collaborative further research involving an EP, college staff and students as co-researchers.

Further research may also focus on extending the generalisability of findings. Participants in the current study were all studying within the college A level programme and did not reflect the diversity of students attending FE settings. The importance of undertaking further research

to understand 'what works for whom and in what circumstances' (Pawson & Tilley, 2007) in relation to students with a varying range of characteristics is also highlighted.

3.4. Plans for dissemination of findings

The relevance of the current research to the organisational development plans of the student services faculty was explored as part of early discussions with college staff. The faculty head described her plans to introduce group-based interventions as part of their range of services in order to manage the level of student demand for emotional support more effectively. She was keen for staff within the faculty to be involved with the research project. This resulted in involvement of a learning mentor and college counsellor in planning for implementation and attendance at the sessions. It was agreed that a feedback meeting involving the head of faculty and relevant staff would be held once the research report was produced. This would explore the potential for the intervention to be used as a basis for college staff led group sessions. A feedback session is planned for the summer of 2021 to explore this option. This session will be supported by production of a summary document which highlights the aspects of the thesis report which are most relevant in exploring the potential for further college-led trials of the intervention.

Preparation of a paper describing the understanding and experience gained from planning and implementing an intervention in a post-16 setting would support wider dissemination of findings. Application for publication in a journal such as Educational Psychology in Practice (EPIP) would support consideration of the implications of the current research for forthcoming development of the EP role in the 16-25 age range.

3.5. Contribution to professional practice

Findings from the current research highlighted a range of issues relevant to the EP role in post-16 practice. The experience of planning and implementing the intervention in conjunction with FE college staff provided a lived experience of the issues identified as key to establishing effective EP practice in the FE sector in the literature review. Gaining familiarity with organisational systems, roles and responsibilities facilitated effective intervention planning. Ensuring that the intervention proposed aligned with organisational priorities and development objectives facilitated college perceptions of the potential for the research to 'add-value'. Direct experience of some key differences in ethical considerations associated with work in this sector was gained and this will be highly valuable in my future EP role in relation to work within the post-16 sector. My previous experience of working in an FE college was a significant

advantage in terms of prior understanding of potential barriers to successful implementation of the intervention. I was able to work with college staff to plan the details of the intervention to minimise the likely impact of these barriers. The extent to which such accommodations would be practically possible with involvement of larger groups of participants is questionable. The participants who took part in the intervention were volunteers who were aware of their commitment to supporting my doctoral research. This is likely to have positively impacted on levels of attendance and retention. Issues relating to attendance and retention for non-compulsory aspects of the curriculum are highly significant considerations in relation to interventions in the FE context. The awareness I have gained of the practical process issues which impact on implementing interventions in this context will inform my future practice.

Throughout the planning and implementation of the intervention I reflected on the impact that conducting the research to fulfil my doctoral research requirements had on my experience and involvement. I felt that this impact was significant in a number of ways:

Firstly, I perceived that the fact that my involvement with the college and relationship with staff was for the duration of the research rather than part of an ongoing working relationship placed some limits on the natural progression of involvement which would have otherwise developed from the intervention. This gave me some insight into the potential benefits associated with undertaking research as a means of 'getting alongside' an organisation and understanding its priorities in the early part of role involvement. I feel that I would consider this approach as an effective means of developing my involvement in a post-16 environment as an EP in role.

Secondly, in my relationship with the student participants I felt an awareness that they had volunteered to take part in the research and were supporting me in fulfilling my doctoral research requirements. This awareness, along with the explicit consideration and analysis of ethical issues associated with the process of gaining consent from the University Ethics Committee, heightened my feelings of responsibility for protecting the welfare of my participants. I reflected on whether this heightened sense of responsibility may, at times, have resulted in over protection to the detriment of development of the skills that the intervention aimed to promote. I feel that I may adopt a more 'balanced' approach to these considerations when undertaking such an intervention as part of an ongoing EP role.

Finally, I reflected on the time allocated to data collection as part of the intervention due to its role in fulfilling my doctoral research requirements. I wondered if this depth of evaluation would have been completed if my research was being undertaken as an EP in role and the

benefits/costs associated with a potentially reduced emphasis on evaluation. I feel that short term considerations in relation to time constraints may assume greater importance than the longer term benefits associated with the potential for depth of evaluation to promote the evolution of an increasingly effective intervention. I reflected on the wider implications of pressures associated with fulfilment of short term aims on the EP role and the importance of maintaining this sense of the importance of fidelity to quality of my practice. I perceive that appropriate balancing of this priority with a pragmatic approach will present an ongoing area for challenge and reflection.

Gradual development of my understanding of the research process through the DEdPsy programme provided me with an essential basis for conducting my thesis research. I have grown in confidence and enthusiasm as a research-practitioner through my experiences. I will be actively seeking opportunities to utilise and further develop my skills as part of my forthcoming EP role.

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APPENDICES

Appendix A1: Outline of Session Plans

Individual meeting
- Check consent forms and email address
- Familiarisation/introductory activity – completion of summary information sheet
- Allocation of identity codes – review of confidentiality and anonymity
- Brief introduction to skills
- Purpose and structure of group sessions
- Commitment
- Completion of resiliency scale

Session 1
- Introductions and group ice-breaker session
- Group rules
- Review of confidentiality and anonymity
- Modified DBT-WCCL completed
- Introduction to individual diary sheets and purpose
- Link between thoughts, actions and behaviour – activity – in pairs complete examples. Starter example provided
- Thinking errors match activity in pairs/add own example
- Group discussion and review activity
- Set homework – record of thinking errors and replacement activities

Session 2
- Review S1 learning – focus on thinking errors
- Review homework
- Complete Diary Sheet 1
- Information/Discussion: Factors affecting emotional health
- Introduce 2 key priorities and 4 skill areas
- Group discussion and review activity
- Set homework – mindfulness information sheets – practice mindfulness

Session 3
- Review learning – focus on thinking errors, 2 priorities and 4 skill areas
- Review homework
- Discussion – mindfulness, role in concentration and attention
- Extend mindfulness:
  -Balancing 3 minds – information and activity
  -What skills activity
  -How skills activity
- Group discussion and review activity
- Set homework – practice mindfulness

Session 4
- Review learning – thinking errors, 2 priorities and 4 skill areas, mindfulness
- Review homework
- Complete Diary Sheet 2
- Discussion – distress tolerance
- Distress tolerance skills:
  -ACCEPTS
  -Pros & Cons
  -Radical Acceptance
- Information and pair/individual activity for each skill area
- Group discussion and review activity
- Set homework – write a short summary or draw a picture describing how you applied one of these skills to manage feelings of distress.

Session 5
- Review learning – mindfulness and distress tolerance skills
- Review homework – method used/tips for success and scales only
- Complete Diary Sheet 3
- Discussion – Emotion regulation
- Emotion regulation skills:
  -Check the facts
  -Accumulate positives
  -Ride the WAVE
- Information and pair/individual activity for each skill area
- Group discussion and review activity
- Set homework – write a short summary or draw a picture describing how you applied one of these skills to managing your emotions. Include your view of how well it worked and anything which would have made it work better.

Session 6
- Review learning – mindfulness and distress tolerance skills to increase acceptance of self and circumstances and emotion regulation as a technique for change
- Review homework – methods used/tips for success only
- Complete Diary Sheet 5
- Discussion – Interpersonal effectiveness
- Interpersonal effectiveness skills:
  -DEAR MAN
  -GIVE
  -FAST
- Information and pair/individual activity for each skill area
- Group discussion and review activity
- Set homework - write a short summary or draw a picture describing how you applied one of these skills to manage a relationship you find challenging. Include your view of how well it worked and anything which would have made it work better.

Session 7
- Review homework – methods used/tips for success only
- Complete Diary Sheet 4
- Pair skills review activities and feedback
- Ranking top 3 and bottom 3 skills with reasons
- Challenges in practical application and tips for addressing
- Group discussion
- Re-cap of specific methods in response to feedback

Session 8
- Completion of post-intervention measures:
- Resiliency scale
- Modified DBT-WCCL
- Group discussion/question and answer session
- Opportunity for individual questions
- Debrief

Appendix A2 - DBT – Modified Ways of Coping Checklist for Students

Place an 'X' next to any of the following strategies you have used to reduce stress or solve problems **in the last month.**

1. ------------- Bargained or compromised to get something good from the situation

2. ------------- Focused on the positives in the situation

3. ------------- Blamed myself

4. ------------- Kept feelings to myself

5. ------------- Changed the way I responded so I didn't annoy or upset other people

6. ------------- Worked out who to blame

7. ------------- Hoped a miracle would happen

8. ------------- Tried to calm myself down before taking action

9. ------------- Talked to someone about how I was feeling

10. ------------- Stood my ground and fought for what I wanted

11. ------------- Refused to believe that it had happened

12. ------------- Treated myself to something (e.g. food, clothing)

13. ------------- Criticised myself

14. ------------- Took it out on others

15. ------------- Came up with a couple of different ways of solving the problem

16. ------------- Wished I was a stronger person – more optimistic and forceful

17. ------------- Accepted my strong feelings, but tried not to let them spoil other things

18. ------------- Focused on the good things in my life

19. ------------- Found something beautiful to make me feel better

20. ------------- Changed something about myself so I could deal with the situation better

21. ------------- Gave less attention to negative thoughts or feelings

22. ------------- Got mad with the people who caused the problem

23. ------------- Felt bad that I couldn't avoid the problem

24. ------------- Tried to distract myself

25. ------------- Tried harder to make things better

26. ------------- Thought that others were unfair to me

27. ------------- Blamed others

28. ------------- Listened to music

29. ------------- Acted as if nothing had happened

30. ------------- Told myself things

Appendix A3: Modified WHO-5 Well-being Index

Student Name: --------------------------   **Date completed:** ------------------------

Completed by: -------------------------   **Position/Relationship to student:** ------------

Please circle the box that best describes your view of the student in relation to each of the statements over the last 2 weeks.

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
1. Has been cheerful and in good spirits	1	2	3	4	5
2. Has been calm and relaxed	1	2	3	4	5
3. Has been active and vigorous	1	2	3	4	5
4. Has been showing confidence	1	2	3	4	5
5. Has been able to make up their own mind about things	1	2	3	4	5
6. Has been interested in new things	1	2	3	4	5
7. Has been dealing with problems well	1	2	3	4	5
8. Has been thinking clearly	1	2	3	4	5

Appendix A4: Diary Sheets

Diary Sheet 1

Student Code: ------------------- Date: -------------

Effectiveness Rating Scale:
0 = Not thought about or used
1 = Thought about, did not want to use
2 = Tried, but could not use
3 = Tried, but did not help
4 = Tried and helped

Circle Days Practiced	Skill	Overall Rating
M T W Th F Sa Su	Identifying thinking errors and using replacement strategies	

Briefly explain your reasons for your rating

Diary Sheet 2

Student Code: -------------------   Date: ---------------

Effectiveness Rating Scale:

0 = Not thought about or used

1 = Thought about, did not want to use

2 = Tried, but could not use

3 = Tried, but did not help

4 = Tried and helped

Circle Days Practiced	Skill	Overall Rating
M T W Th F Sa Su	Identifying thinking errors and using replacement strategies	
	Mindfulness Skills	
M T W Th F Sa Su	Balancing 3 Minds	
M T W Th F Sa Su	What Skills (observe, describe, participate)	
M T W Th F Sa Su	How Skills (non-judgemental, one-mind, effectively)	

Briefly explain your reasons for your ratings

Diary Sheet 3

Student Code: -------------------   Date: ---------------

Effectiveness Rating Scale:
0 = Not thought about or used
1 = Thought about, did not want to use
2 = Tried, but could not use
3 = Tried, but did not help
4 = Tried and helped

Circle Days Practiced	Skill	Overall Rating
M T W Th F Sa Su	Identifying thinking errors and using replacement strategies	
	Mindfulness Skills	
M T W Th F Sa Su	Balancing 3 Minds	
M T W Th F Sa Su	What Skills (observe, describe, participate)	
M T W Th F Sa Su	How Skills (non-judgemental, one-mind, effectively)	
	Distress Tolerance Skills	
M T W Th F Sa Su	ACCEPTS	
M T W Th F Sa Su	Pros and Cons	
M T W Th F Sa Su	Radical Acceptance	

Briefly explain reasons for your ratings

Diary Sheet 4

Student Code: ------------------   Date: ---------------

Effectiveness Rating Scale:
0 = Not thought about or used
1 = Thought about, did not want to use
2 = Tried, but could not use
3 = Tried, but did not help
4 = Tried and helped

Circle Days Practiced	Skill	Overall Rating
M T W Th F Sa Su	Identifying thinking errors and using replacement strategies	
	Mindfulness Skills	
M T W Th F Sa Su	Balancing 3 Minds	
M T W Th F Sa Su	What Skills (observe, describe, participate)	
M T W Th F Sa Su	How Skills (non-judgemental, one-mind, effectively)	
	Distress Tolerance Skills	
M T W Th F Sa Su	ACCEPTS	
M T W Th F Sa Su	Pros and Cons	
M T W Th F Sa Su	Radical Acceptance	
	Emotion Regulation	
M T W Th F Sa Su	Check the facts	
M T W Th F Sa Su	Accumulate positives	
M T W Th F Sa Su	Ride the WAVE	

Briefly explain reasons for your ratings

Appendix A5: Course Feedback Questionnaire

Student Code: ------------------   Date: --------------

Skills Covered:

DBT Skill
Identifying thinking errors and using replacement strategies
Mindfulness Skills
Balancing 3 Minds
What Skills (observe, describe, participate)
How Skills (non-judgemental, one-mind, effectively)
Distress Tolerance Skills
ACCEPTS
Pros and Cons
Radical Acceptance
Emotion Regulation
Check the facts
ABC PLEASE
Ride the WAVE
Interpersonal Effectiveness
DEAR MAN
GIVE
FAST

Top 3 Skills

Reasons for Choice:

Bottom 3 Skills

Reasons for Choice

What I liked most about the sessions:

Other comments:

Recommendations for improvement:

129

Appendix A6: Three Month Follow-Up Questionnaire

Tools ∨   Saved at 12:46 PM   Draft

Q   Preview   Publish

Psycho-education Group Skills Intervention: Three-Month Follow Up
Participant Feedback Questionnaire

iQ Score: Great

▼   Default Question Block

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☐   Q12   •••

Department of Psychology – Cardiff University
Student Participant Information Sheet

Research Title: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-
Being of Further Education Students

We would like to invite you to participate in this postgraduate research project. You should only
participate if you want to; choosing not to take part will not disadvantage you in any way. Before you
decide whether you want to take part, it is important for you to understand why the research is being
done and what your participation will involve. Please take time to read the following information
carefully and discuss it with others if you wish.

Background and aims of this project
The mental health and well-being of young people aged 16-25 has received increasing attention in
recent times (Atkinson & Martin, 2018). According to the World Health Organisation three quarters of
mental health problems begin by an individuals' mid-twenties. In reviewing research on mental health
help-seeking behaviours of young people, the fact that their needs only become recognised when their
mental health difficulties are serious is highlighted as a cause for concern due to the missed
opportunity for preventative strategies (Rothi & Leavey, 2006). The issue of providing support for the
"missing middle", i.e. those children and young people who need support but do not meet the
threshold for specialist services, was highlighted by the Welsh Assembly Government 'Mind over
matter' report (2018). Donker et al. (2009) provide support for the application of psychoeducational
programmes as a preventative strategy.

Dialectical Behaviour Therapy (DBT) was originally developed by Linehan (1993) as an intervention
for individuals with mental health problems. However, the potential for elements of DBT to be used
more widely has increasingly been explored. The use of a DBT based group skills training intervention
to support students in managing their emotions and therefore improve their well-being and
performance is the focus of this study. Strategies focus on teaching:
- skills to increase acceptance of self and current circumstances
- techniques for achieving change

This project is part of a research study undertaken by a Trainee Educational Psychologist at the
University of Cardiff to fulfil the requirements of her third-year thesis.

What will my participation in the research involve?
You will be invited to attend an initial individual student meeting followed by eight small group skills
sessions of approximately one hour per week. These will take place between January and March
2020. The initial student meeting will provide further information and an opportunity to understand the
purpose of the sessions more fully. It will also involve some initial information gathering. The group
sessions will focus on teaching strategies in mindfulness, distress tolerance, emotional regulation and

interpersonal relations designed to increase positive coping skills and improve measures of resiliency.

What will happen to the results?

Questionnaires used to measure resiliency, coping skills and understanding of DBT principles would be incorporated into the session plans. A three month follow up questionnaire will be used to provide feedback on students' perceptions of the usefulness of the programme. This information would be analysed to provide feedback on the effectiveness of the group skills sessions and used as the basis for a research report. Information will not be included in the report which would enable identification of individual participants or the institution where the research was conducted. The report may use quotes from the participant questionnaires to help illustrate the points that are being made. However, these will be carefully selected to ensure that they do not provide information that would allow participants to be identified.

What about confidentiality?

Any data you provide will be treated in accordance with the UK Data Protection Act 2018. All possible steps will be taken to ensure that you, as an individual, cannot be identified throughout the process (anonymity). Participants will use allocated codes rather than names when completing documentation to be used for research purposes, to ensure anonymity at the point of data collection. Access to information linking codes to individual names will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher. It is possible that, in the future, researchers working on related projects might ask to look at the anonymised data to help them with their own work. We would like your approval now that we can share the data with them if this happens.

What if I want to withdraw from the study?

If you agree to take part in the study, but then decide to withdraw, then that is fine. Simply contact your researcher who would remove you from the participant list and destroy any data that had already been collected.

What do I do now?

If you have any questions, please contact the researcher on the email address below for further information. This research has been approved by the Cardiff University Ethics Committee. The Cardiff ethics committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

Researcher contact details:

Hilary Bignell: BignellH@cardiff.ac.uk
Supervisor: Dr Ian Smillie
Smillie@cardiff.ac.uk

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Q10   iQ ★

| I confirm that I have read and understood the information sheet for students for the above study. |
| I have had the opportunity to ask questions and, if applicable, these have been answered satisfactorily. |
| I understand that participation is voluntary and I am free to withdraw my consent without giving a reason by contacting the researcher (as detailed on the student information sheet). |
| I understand that all documentation associated with the research project will be stored confidentially. Participants will use allocated codes rather than names when completing documentation to be used for research purposes to ensure anonymity at the point of data collection. Access to information linking codes to identity will be restricted to the named researcher. |
| I am happy for the anonymised quantitative and qualitative data to be shared with future researchers in this topic area. |
| I understand that the researcher will share information with their research supervisor if they are worried that I am at risk of hurting myself or someone else. |

THANK YOU FOR PARTICIPATING IN THIS RESEARCH

○ Yes, I am happy to take part.
○ No, I do not wish to take part.

Q1

Skip destination   Go to skip origin

Following the course, I feel better equipped to manage my emotional wellbeing.

○ Yes
○ No
○ Unsure

Q2

Following the course, I have a range of strategies I can use to manage my emotional wellbeing.

○ Yes

○ No

○ Unsure

Q3   iQ

Please tick one of the options for each of the strategies listed.

	Daily	Weekly	Monthly	Occasionally	Never
Identifying thinking errors and using replacement strategies	○	○	○	○	○
Balancing 3 minds	○	○	○	○	○
Mindfulness 'What' Skills (Observe, Describe, Participate)	○	○	○	○	○
Mindfulness 'How' Skills (Non-judgemental, One-mind, Effective)	○	○	○	○	○
ACCEPTS	○	○	○	○	○
Pros and Cons	○	○	○	○	○
Radical Acceptance	○	○	○	○	○
Check the Facts	○	○	○	○	○
ABC PLEASE	○	○	○	○	○
Ride the Wave	○	○	○	○	○

Q4

Please describe examples of how you use these strategies.

Q5

Describe any changes in your ability to manage your emotions following the course

| Import from library | Add new question |

Add Block

▼   Block 1

iQ

Student Participant Debrief Sheet

Research Title: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

Thank you for taking part in the psychoeducation group skills sessions to provide feedback on the effectiveness of this programme for supporting Further Education students. The information collected will be used to inform decisions as to whether this is a useful tool to use more widely to improve student well-being and performance.

Any data you provide will be treated in accordance with the UK Data Protection Act 1998. All possible steps will be taken to ensure that you, as an individual, cannot be identified throughout the process (anonymity). Participants will use allocated codes rather than names when completing documentation to be used for research purposes, to ensure anonymity at the point of data collection. Access to information linking codes to individual names will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher. It is possible that, in the future, researchers working on related projects might ask to look at the anonymised data to help them with their own work.

If you are concerned regarding any aspect of your involvement in this research then please discuss this directly with the researcher or email her using the contact details below. Concerns relating to mental health should be discussed with your General Practitioner (G.P). This research has been approved by the Cardiff University Ethics Committee. The Cardiff University Ethics Committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

 Thank you for your participation in this research.

Researcher contact details:

Hilary Bignell
BignellH@cardiff.ac.uk

 Supervisor: Dr Ian Smillie
Smillie@cardiff.ac.uk

Import from library   Add new question

Add Block

End of Survey

tudent Participant Debrief Sheet

Department of Psychology – Cardiff University

Dear   ,

I am currently enrolled on the Doctorate in Educational Psychology Programme at Cardiff University. Planning and implementing a research project which culminates in the production of a thesis report is a key element of the programme requirements. Following preliminary discussions with ----------------, I am writing to ask you to consider giving consent to my undertaking the following research at ---------------------:

Research Title: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

Background and aims of this project

The mental health and well-being of young people aged 16-25 has received increasing prominence in recent times (Atkinson & Martin, 2018). According to the World Health Organisation three quarters of mental health problems begin by an individuals' mid-twenties. In reviewing research on mental health help-seeking behaviours of young people, the fact that their needs only become recognised when their mental health difficulties are serious is highlighted as a cause for concern due to the missed opportunity for preventative strategies (Rothi & Leavey, 2006). The issue of providing support for the "missing middle", i.e. those children and young people who need support but do not meet the threshold for specialist services, was highlighted by the 'Mind over matter" report (WAG, 2018). The report summarises the views articulated by stakeholders that "Emotional health programmes .. should be viewed as a form of promotion, prevention and early intervention which could reduce pressure on CAMHS, reduce specific mental health problems and increase academic achievement." (WAG, 2018 p.20). Donker et al.(2009) highlight the need for brief, inexpensive and effective interventions to address the emotional health and well-being needs described. They provide support for the application of psychoeducational programmes as a first step intervention.

DBT is based on a biosocial developmental model which considers the complex interaction between biological vulnerabilities and psychosocial risk factors in causing maladaptive behaviours. It was originally developed by Linehan (1993) as an intervention for individuals with mental health problems. However, the potential for elements of DBT to be used more widely has increasingly been explored. It has been used to address a range of psychological disorders which feature emotional dysregulation as a key component (Nelson-Gray et al., 2006). Linehan's original conception has been modified specifically for work with adolescents (Groves et al., 2011). A number of studies have found the group skills component to be successful in reducing emotional dysregulation and increasing adaptive coping skills when implemented as a stand-alone intervention (Valentine et al., 2015). Students are taught DBT strategies in mindfulness, distress tolerance, emotion regulation and interpersonal relations designed to increase positive coping skills and improve measures of resiliency.

The new provisions of the Additional Learning Needs and Education Tribunal (Wales) Act 2018 (DfES, 2018) have increased focus on the paucity of applied educational psychology research with the 16-25 age group. Evaluation of the impact of an intervention which may

contribute to a preventative focus in addressing the emotional needs of this age group provides the focus for this research.

Aims:

To undertake a small-scale mixed methods pilot study to investigate the effectiveness of a DBT based group skills psycho-education training intervention in improving the well-being of students aged 16+ in a Further Education setting.

Intervention:

Initial individual student meeting followed by eight group skills sessions of approximately one hour per week. The sessions would focus on psychological education as opposed to therapy to develop coping strategies, enhance behavioural capabilities and promote individual efficacy in achieving positive change. A draft outline of session plans is attached at appendix A. These plans will be modified in response to participant feedback as the course progresses.

Measures:

Baseline and post-intervention questionnaire measures of resiliency, coping skills and understanding of strategies would be incorporated into the session plans. Students complete weekly homework diaries to record the use of the skills. An open response question on reasons for ratings will provide qualitative feedback on the factors which affect utilisation of specific skills. Pre- and post- intervention measures of performance (e.g. attendance, assignment completion and grades) would be collected from available college data. A three month follow up questionnaire will be used to provide qualitative feedback on students' perceptions of the usefulness of the programme. Feedback will be gained on the extent to which skills utilisation has been maintained.

Analysis:

Descriptive and inferential statistical methods will be used to analyse the quantitative data gained. Thematic analysis will be used to analyse the qualitative data.

Participants:

A group of 10-12 students currently enrolled on A Level programmes at a College of Further Education. The material used will be tailored specifically to adolescents, therefore participants will be between 16 and 19 years of age. Students who have approached their Form Tutor or Head of Year with concerns regarding emotional well-being will be provided with information regarding the programme. Those who express an interest in taking part will be given more detailed information and provided with student and parent information sheets and consent forms.

Overview of Proposed Timeline

Date	Activity/Action
November 2019	University ethics committee research application and associated documentation College gatekeeper consent
December 2019	Potential participants to be identified.
December 2019	Student information letter and consent gained Parental information letter and consent gained Collection of pre-study college-based data measures
January-March 2020	Individual student session Collection of pre-study questionnaire measures Group skills sessions x8 Collection of post-study questionnaire measures Collection of during study college-based data measures
April 2020	Collection of post study college-based data measures

| May 2020 onwards | Data analysis and preliminary reporting |
| June 2020 | Follow-up questionnaire |

What will happen to the results?

The quantitative and qualitative data collected will be anonymised prior to analysis. A thesis report will be produced providing detailed coverage of all aspects of the research. A summary report will also be produced. A copy of both versions will be sent to you. Information will not be included which would enable identification of individual participants or the institution where the research was conducted.

What about confidentiality?

All documentation associated with the research project will be stored confidentially. Individual participants and parents/guardians will be given participant information sheets and asked to complete consent forms prior to involvement in the study. Participants will use allocated codes rather than names when completing documentation to be used for research purposes (e.g. pre and post questionnaires), to ensure anonymity at the point of data collection. Access to information linking codes to identity will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher.

Whilst participants in the group skills sessions will be asked to agree to a set of ground rules which include a commitment to treating information shared in the group as confidential, this cannot be guaranteed. The emphasis in the group skills sessions is on understanding and applying skills. Participants will be reminded at the start of each session of the need to treat the group as a classroom learning environment in making judgements about information which is appropriate to share.

Providing Consent

If you have any questions, please contact me for further information using the email address below. This research has been approved by the Cardiff University Ethics Committee. The Cardiff University Ethics Committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

Thank you for your consideration of the above proposal. If you are willing to facilitate this research, I would be grateful if you could confirm this in writing using the email address below.

Yours sincerely,

Hilary Bignell
Trainee Educational Psychologist
Researcher contact details:

Hilary Bignell:BignellH@cardiff.ac.uk

Supervisor: Dr Ian Smillie

smillie@cardiff.ac.uk

Department of Psychology – Cardiff University

Department of Psychology – Cardiff University

Research Title: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

We would like to invite you to participate in this postgraduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish.

Background and aims of this project

The mental health and well-being of young people aged 16-25 has received increasing attention in recent times (Atkinson & Martin, 2018). According to the World Health Organisation three quarters of mental health problems begin by an individuals' mid-twenties. In reviewing research on mental health help-seeking behaviours of young people, the fact that their needs only become recognised when their mental health difficulties are serious is highlighted as a cause for concern due to the missed opportunity for preventative strategies (Rothi & Leavey, 2006). The issue of providing support for the "missing middle", i.e. those children and young people who need support but do not meet the threshold for specialist services, was highlighted by the Welsh Assembly Government 'Mind over matter" report (2018). Donker et al. (2009) provide support for the application of psychoeducational programmes as a preventative strategy.

Dialectical Behaviour Therapy (DBT) was originally developed by Linehan (1993) as an intervention for individuals with mental health problems. However, the potential for elements of DBT to be used more widely has increasingly been explored. The use of a DBT based group skills training intervention to support students in managing their emotions and therefore improve their well-being and performance is the focus of this study. Strategies focus on teaching:

- skills to increase acceptance of self and current circumstances
- techniques for achieving change

This project is part of a research study undertaken by a Trainee Educational Psychologist at the University of Cardiff to fulfil the requirements of her third-year thesis.

What will my participation in the research involve?

You will be invited to attend an initial individual student meeting followed by eight small group skills sessions of approximately one hour per week. These will take place between January and March 2020. The initial student meeting will provide further information and an opportunity to understand the purpose of the sessions more fully. It will also involve some initial information gathering. The group sessions will focus on teaching strategies in mindfulness,

distress tolerance, emotional regulation and interpersonal relations designed to increase positive coping skills and improve measures of resiliency.

What will happen to the results?

Questionnaires used to measure resiliency, coping skills and understanding of DBT principles would be incorporated into the session plans. Measures of performance (e.g. attendance, assignment completion and grades) would be collected from available college data. A three month follow up questionnaire will be used to provide feedback on students' perceptions of the usefulness of the programme. This information would be analysed to provide feedback on the effectiveness of the group skills sessions and used as the basis for a research report. Information will not be included in the report which would enable identification of individual participants or the institution where the research was conducted. The report may use quotes from the participant questionnaires to help illustrate the points that are being made. However, these will be carefully selected to ensure that they do not provide information that would allow participants to be identified.

What about confidentiality?

Any data you provide will be treated in accordance with the UK Data Protection Act 2018. All possible steps will be taken to ensure that you, as an individual cannot be identified throughout the process (anonymity). Participants will use allocated codes rather than names when completing documentation to be used for research purposes, to ensure anonymity at the point of data collection. Access to information linking codes to individual names will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher. It is possible that, in the future, researchers working on related projects might ask to look at the anonymised data to help them with their own work. We would like your approval now that we can share the data with them if this happens.

Whilst participants in the group skills sessions will be asked to agree to a set of ground rules which include a commitment to treating information shared in the group as confidential, this cannot be guaranteed. The emphasis in the group skills sessions is on understanding and applying skills. Participants will be reminded at the start of each session of the need to treat the group as a classroom learning environment in making judgements about information which is appropriate to share.

What if I want to withdraw from the study?

If you agree to take part in the study, but then decide to withdraw, then that is fine. Simply contact your researcher who would remove you from the participant list and destroy any data that had already been collected.

What do I do now?

If you have any questions, please contact the researcher on the email address below for further information. You will be given this information sheet to keep and be asked to sign a consent form. This research has been approved by the Cardiff University Ethics Committee. The Cardiff ethics committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

If you are willing to participate, please complete the attached consent form and return it to ....

<u>Researcher contact details:</u>

Hilary Bignell:BignellH@cardiff.ac.uk

Supervisor: Dr Ian Smillie

Smillie@cardiff.ac.uk

Appendix A9: Consent Form for Student Participants

Title of study: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

REC/SREC reference and committee:

Name of Chief/Principal Investigator: Hilary Bignell

	Please initial box
I confirm that I have read and understood the information sheet for students for the above study	
I have had the opportunity to ask questions and, if applicable, these have been answered satisfactorily	
I understand that participation is voluntary and I am free to withdraw my consent without giving a reason by contacting the researcher (as detailed on the student information sheet)	
I understand that due to the nature of group skills sessions, any information shared may be repeated by group members and so confidentiality cannot be guaranteed, although participants will be encouraged to respect the confidentiality of others.	
I understand that all documentation associated with the research project will be stored confidentially. Participants will use allocated codes rather than names when completing documentation to be used for research purposes to ensure anonymity at the point of data collection. Access to information linking codes to identity will be restricted to the named researcher.	
I am happy for the anonymised quantitative and qualitative data to be shared with future researchers in this topic area.	
I understand that the researcher will share information with their research supervisor if they are worried that I am at risk of hurting myself or someone else.	
I am happy for the above-named researcher to contact me by email to provide details of the programme	
I consent to participating in this study	

_____   _____   _____
Name of student (print)   Date   Signature

_____   _____   _____
Name of person taking consent   Date   Signature
(print)

THANK YOU FOR PARTICIPATING IN THIS RESEARCH

Department of Psychology – Cardiff University

Research Title: Pilot Trial of Using Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

We would like to invite your son/daughter to participate in this postgraduate research project. You should only agree to their participation if you want to; choosing not to take part will not disadvantage them in any way. Before you decide whether you want to provide consent, it is important for you to understand why the research is being done and what their participation will involve. Please take time to read the following information carefully and discuss it with others if you wish.

Background and aims of this project

The mental health and well-being of young people aged 16-25 has received increasing attention in recent times (Atkinson & Martin, 2018). According to the World Health Organisation three quarters of mental health problems begin by an individuals' mid-twenties. In reviewing research on mental health help-seeking behaviours of young people, the fact that their needs only become recognised when their mental health difficulties are serious is highlighted as a cause for concern due to the missed opportunity for preventative strategies (Rothi & Leavey, 2006). The issue of providing support for the "missing middle", i.e. those children and young people who need support but do not meet the threshold for specialist services, was highlighted by the Welsh Assembly Government 'Mind over matter" report (2018). Donker et al. (2009) provide support for the application of psychoeducational programmes as a preventative strategy.

Dialectical Behaviour Therapy (DBT) was originally developed by Linehan (1993) as an intervention for individuals with mental health problems. However, the potential for elements of DBT to be used more widely has increasingly been explored. The use of a DBT based group skills training intervention to support students in managing their emotions and therefore improve their well-being and performance is the focus of this study. Strategies focus on teaching:

What will my participation in the research involve?

Your son/daughter will be invited to attend an initial individual student meeting followed by eight small group skills sessions of approximately one hour per week. These will take place between January and March 2020. The initial student meeting would provide further information and an opportunity for them to understand the purpose of the sessions more fully. The group sessions would focus on teaching strategies in mindfulness, distress tolerance, emotional regulation and interpersonal relations designed to increase positive coping skills and improve measures of resiliency.

What will happen to the results?

Questionnaires used to measure resiliency and coping skills will be incorporated into the session plans. Measures of performance (e.g. attendance, assignment completion and grades) will be collected from available college data. A three month follow up questionnaire will be used to provide qualitative feedback on students' perceptions of the usefulness of the programme. This information will be analysed to provide information on the effectiveness of the group skills sessions and used as the basis for a research report. Information will not be included in the report which would enable identification of individual participants or the institution where the research was conducted. The report may use quotes from the participant questionnaires to help illustrate the points that are being made. However, these will be carefully selected to ensure that they do not provide information that would allow participants to be identified.

What about confidentiality?

Any data provided will be treated in accordance with the UK Data Protection Act 2018. All possible steps will be taken to ensure that individuals cannot be identified throughout the process (anonymity). Participants will use allocated codes rather than names when completing documentation to be used for research purposes, to ensure anonymity at the point of data collection. Access to information linking codes to individual names will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher. It is possible that, in the future, researchers working on related projects might ask to look at the anonymised data to help them with their own work. We would like your approval now that we can share the data with them if this happens.

Whilst participants in the group skills sessions will be asked to agree to a set of ground rules which include a commitment to treating information shared in the group as confidential, this cannot be guaranteed. The emphasis in the group skills sessions is on understanding and applying skills. Participants will be reminded at the start of each session of the need to treat the group as a classroom learning environment in making judgements about information which is appropriate to share.

What if I want to withdraw my son/daughter from the study?

If you agree for your son/daughter to take part in the study, but then decide to withdraw your consent, that is fine. Simply contact your researcher who would remove your son/daughter from the participant list and destroy any data that had already been collected.

What do I do now?

If you have any questions, please contact the researcher on the email address below for further information. You will be given this information sheet to keep and be asked to sign a consent form. This research has been approved by the Cardiff University Ethics Committee. The Cardiff Ethics Committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

If you are willing to participate, please complete the attached consent form and return it to ---

<u>Researcher contact details:</u>

Hilary Bignell:BignellH@cardiff.ac.uk

Supervisor: Dr Ian Smilie
Smillie@cardiff.ac.uk

Appendix A11: Consent Form for Parents

Title of study: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

REC/SREC reference and committee:

Name of Chief/Principal Investigator: Hilary Bignell

	Please initial box
I confirm that I have read and understood the information sheet for parents for the above study	
I have had the opportunity to ask questions and, if applicable, these have been answered satisfactorily	
I understand that my son/daughter's participation is voluntary and I am free to withdraw my consent without giving a reason by contacting the researcher (as detailed on the parent information sheet)	
I understand that due to the nature of group skills sessions, any information shared may be repeated by group members and so confidentiality cannot be guaranteed, although participants will be encouraged to respect the confidentiality of others.	
I understand that all documentation associated with the research project will be stored confidentially. Participants will use allocated codes rather than names when completing documentation to be used for research purposes to ensure anonymity at the point of data collection. Access to information linking codes to identity will be restricted to the named researcher.	
I am happy for the anonymised quantitative and qualitative data to be shared with future researchers in this topic area.	
I am happy for the above-named researcher to contact my son/daughter by email to provide details of the programme	
I consent to my son/daughter participating in this study	

_____   _____   _____
Name of parent (print)   Date   Signature

_____   _____   _____
Name of person taking consent   Date   Signature
(print)

Privacy Notice:
The information provided on the consent form will be held in compliance with GDPR regulations. Cardiff University is the data controller and Matt Cooper is the data protection officer (inforequest@cardiff.ac.uk). This information is being collected by Hilary Bignell. This information will be held securely and separately from the research information provided. Only the researcher will have access to this form and it will be destroyed after 7 years. The lawful basis for processing this information is public interest.

Appendix A12: Student Participant Debrief Sheet

Department of Psychology – Cardiff University

Research Title: Pilot Trial of Using A Psychoeducation Group Skills Intervention to Improve the Well-Being of Further Education Students

Thank you for taking part in the psychoeducation group skills sessions to provide feedback on the effectiveness of this programme for supporting Further Education students. The information collected will be used to inform decisions as to whether this is a useful tool to use more widely to improve student well-being and performance.

Any data you provide will be treated in accordance with the UK Data Protection Act 1998. All possible steps will be taken to ensure that you, as an individual, cannot be identified throughout the process (anonymity). Participants will use allocated codes rather than names when completing documentation to be used for research purposes, to ensure anonymity at the point of data collection. Access to information linking codes to individual names will be restricted to the named researcher. All data will be securely archived after the project due to its possible historical value, with access restricted to the named researcher. It is possible that, in the future, researchers working on related projects might ask to look at the anonymised data to help them with their own work.

Whilst participants in the group skills sessions will be asked to agree to a set of ground rules which include a commitment to treating information shared in the group as confidential, this cannot be guaranteed. The emphasis in the group skills sessions is on understanding and applying skills. Participants will be reminded at the start of each session of the need to treat the group as a classroom learning environment in making judgements about information which is appropriate to share.

If you are concerned regarding any aspect of your involvement in this research then please discuss this directly with the researcher or email her using the contact details below. Concerns relating to mental health should be discussed with your General Practitioner (G.P). This research has been approved by the Cardiff University Ethics Committee. The Cardiff University Ethics Committee can be contacted by telephone (029 208 70360) or email (psychethics@cardiff.ac.uk) if you have any complaints about this research.

Thank you for your participation in this research.

Researcher contact details:

Hilary Bignell

BignellH@cardiff.ac.uk

Supervisor: Dr Ian Smillie

Smillie@cardiff.ac.uk

Appendix B1: Thematic Analysis Process

Familiarisation with the dataset

- Qualitative feedback from the Diary Sheets, Course Feedback Questionnaire and 3-Month Follow-Up Questionnaire was transcribed.
- Transcripts were read and re-read; notes on initial thoughts and ideas were recorded throughout this process.

Generating initial codes

- Semantic analysis of the transcripts was initially undertaken manually, using coloured pens and underlining to indicate segments of the text which represented initial codes.
- Each transcript was coded individually, with initial codes generated via hand written notes, recorded onto A4 sheets.
- Transcripts were re-read to ensure the initial codes had been accurately represented.

Searching for themes from initial codes

- Segments of text from transcripts with the same initial code were grouped together and reviewed to identify salient, common or significant themes.
- Codes were reviewed to form themes.

Reviewing and refining themes

- Each theme was reviewed, with some minor themes moved to a broader theme.
- Themes were checked to ensure they had relevant breadth and depth and were not significantly overlapping.
- Segments of text represented by each theme were re-checked to ensure the theme summarised the text appropriately.
- The themes generated from the original text were represented as sub-themes.
- The sub-themes were grouped into overarching themes to represent overarching meaning of the sub themes. Further categorisation of themes and sub-themes was then undertaken.
- A thematic map was produced summarising the over-arching themes, themes and sub-themes.

Presentation and interpretation of analysis

- A summary of each theme was included in the results section, combined with relevant quotes from the original transcripts.
- Each theme was discussed and interpreted in relation to the research questions.

Examples of the coding process
Colour Coding:

1. Promotion of Learning – Black
2. Atmosphere – Orange
3. Structure – Yellow
4. Group-based learning – Turquoise
5. Skills development – Blue highlighter
6. Pedagogy – Purple
7. Emotions impacted – Brown
8. Positive outcomes – Red
9. Difficulties encountered – Pink
10. Context of use – Blue
11. Longevity of impact – Green
12. Flexibility/individualisation – Lime

Diary Sheet 4

P1

I like to use techniques like mindfulness (meditation) and acceptance to give myself the space (emotional space) to deal with situations effectively. I also like listening to music to help motivate me/keep me from becoming unmotivated or melancholy on days which I have a lot to do/get through in terms of college work especially.

P2

Feeling like there's not enough time to get all my work done, so used catastrophising to remind myself that it wasn't the end of the world if it wasn't all done, my lecturers would understand. Also feeling overwhelmed and stressed about exams, so met with a friend and went on a walk down the beach, which put me in a better frame of mind and allowed me to think more positively.

P3

I did not use the replacement strategies as I generally do not find them easy or helpful to use. I followed 3 minds and ... to regulate my mood. I used observe and describe skills in .. to calm myself following a stressful experience but I did not use participate skills. I use how skills to act mindfully and not further any behaviour around on my strong emotions at the time. I used the distress tolerance skills, I found them hard to use as I was not present for the teaching.
I checked the facts however I believe I used it in the wrong situation and therefore found it troublesome. The ABC PLEASE skills were easy to use and that helps in the long term.

P4

The DBT skills were useful because I tend to think pessimistically regarding college work – I can identify the thinking errors and reduce negative thinking, enabling me to do more work rather than thinking 'even if I start now, there's no point/it will make no difference'.
Balancing 3 minds are good during a debate in a group chat with friends. I was able to put forward my view without becoming too emotional and without offending others or hurting their feelings.
I tried to use the what skills (focus on breathing) on Monday, the day before a Biology test. I do not feel that it worked for me because almost immediately after I returned to the same level of stress due to revision.
I rated the pros and cons a 1 because I thought about it but did not make one due probably to my habit or procrastination – unlike the others it requires physically writing rather than just thought.

P5

Using these strategies together helped me to accept and deal with a few situations I found challenging. They helped me to avoid irrational thoughts and behaviour and instead I was able to feel relaxed and positive in spite of stressful situations. I found radical acceptance, what skills and replacement strategies (for thinking errors) the most helpful and beneficial to me.

6

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P6

Identifying thinking errors has helped by helping me focus on something else and feel more in control. What skills especially observe and participate I find very relaxing. I found the how skills and the ride the wave fairly helpful for lower stress. The ACCEPT skills I could not think how to apply it when stressed.

P7

I found identifying thinking errors, what skills and ACCEPTS the most helpful as I could easily incorporate them into what I was already doing. In particular, I found participation, describe and helping others helped the most. I didn't use ride the wave or radical acceptance because there were no suitable situations – I would use them if the right situation occurred. I tried to use how skills and ABC PLEASE but found they did not have much effect on the way I was feeling.
I thought about balancing the 3 minds but did not come across an occasion where I wanted to use them.

P8

Replacement strategies are effective because it allows room for thinking about positives and distracts mind from negatives. Balancing 3 minds was not effective as whilst being in a negative mood it is difficult to think rationally and change mindset.
What skills are most effective as it calms down a negative mind and allows you to focus on what's happening now. How skills – not so effective as judgement is hard to separate from a situation you are encountering.
ACCEPTS is effective as it provided various techniques to get out of a negative mindset.

P9

When waking up early and going to the gym, it is important to focus on the task at hand and you feel like you don't want to do it, but you understand that it's good for stress levels. Identifying thinking errors and using replacement strategies. Radical acceptance has helped with coming to terms with situations and events that has happened to me, and to understand that it was inevitable and that nothing could be done to change it. ACCEPTS was helpful, especially 'A' as activities is one of the main stress reliefs that I use so in result, I use ACCEPTS quite frequently.

P10

I forgot radical acceptance and ride the wave.
ABC is good I just have had a lot of info in my lectures this week this brain is fried.
Every rating with 3 I tried but didn't have much of an effect on me.
4 ratings were things I used more than once and worked, although it may have been difficult.

7

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Course Feedback
Reasons for choice of Top 3 Skills

They were the ones I used and remembered most as I missed a few sessions. They were easy to do in the way that they were convenient and required no planning and were relatively quick.

What skills help calm mind, ACCEPTS give techniques to get out of negative mindset, replacement allows you to focus on positive.

These skills can help with focusing on the present and doing things that can change your future. Focusing action rather than thought.

I could use these easily without having to think too much about them. I incorporated them into what I was already doing meaning they made it very easy for me to think positively/lift my mood.

I feel as though these are the skills I used most often because they worked for me. They are also easy to implement in daily life.

Most applied to my life and were most acceptance. Able to use in the moment.

I will use the what skills in many situations. ABC PLEASE helps in the long term. How skills allow me to judge a situation mindfully.

I like to concentrate on staying present in the moment, accepting the moment the way it is and I listen to music for outside stimulus with a positive effect.

They're the ones I used most, worked best and I understood the concept.

I find then the easiest to apply and use in stressful situations.

Reasons for choice of Bottom 3 Skills

The how skills were more difficult for me to remember, maybe due to the individual definitions not being memorable for me. I didn't end up using the pros and cons because I found making a table to be a task that I procrastinated.

How – cannot detach judgement from experience, Balancing – cannot think rationally and switch mindset whilst mind is negative, acceptance – did not work.

Because when someone is stressed it is difficult to actively focus on descriptions etc.

I found these more difficult to use and often couldn't find suitable situations to use them in. I found they had little effect on the way I was feeling when I could use them.

I don't feel these skills put me in a more positive frame of mind in comparison to the others.

8

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Examples of transcript grouping for each code

A
1.Promotion of Learning
They were easy to do in the way that they were convenient and required no planning and were relatively quick.
I could use these easily without having to think too much about them. I incorporated them into what I was already doing meaning they made it very easy for me to think positively/lift my mood.
They are also easy to implement in daily life.
Able to use in the moment
I find then the easiest to apply and use in stressful situations.
The how skills were more difficult for me to remember
I didn't end up using the pros and cons because I found making a table to be a task that I procrastinated.
Had little effect on the way I was feeling when I did use them
I don't feel these skills put me in a more positive frame of mind in comparison to the others.
Weren't as effective or easy to do.
I liked learning about the different ways in which stress can be reduced as I had prior knowledge and find Psychology as a subject really interesting.
Learning about how certain techniques can change a negative mindset to a positive or neutral one.
I enjoyed learning about emotions/the way we think. I also liked gaining an understanding of how I am able to control my emotions
Learning about these skills and thinking errors.

Sheet1

Ready   Count: 15

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|	H
1	**8.Positive Outcomes/ Benefits**
2	Looking at magnification I was able to remind myself that this was only a first draft and I would be receiving feedback in order for it to be improved upon.
3	I used replacement strategies to slow down
4	Strategies were able to help
5	It was useful as I was able to identify a certain thinking error and replace the thought with a more positive/constructive one. For example, I was catastrophising…but reminded myself that I still had plenty of time to complete it the next day.
6	I received bad marks on mocks or homework and started thinking I would fail my exams and not get into university – overgeneralisation. I instead rationalised and realised I would have time to improve before exams.
7	Usually worked well
8	Thinking about the positives outweighs negative, allows you to focus on good things and forget about negative things, results in better relaxed mood
9	Because it allowed me to eliminate those stresses by actively putting things into place that made those stresses disappear. Thinking error – catastrophising.
10	I find that mindfulness skills are more effective for me personally. I used observe in a quiet room and I felt more calm afterwards. I then used describe on the bus home and I felt more comfortable. I wasn't able to use the how skills. I used the DBT skills to identify pessimistic thoughts about a biology test the next day which allowed me to replace them with more open minded and positive thoughts.
11	I balanced the 3 minds
12	not allowing myself to become too attached from the emotional mind where I would say something insensitive to them, but also using the reasonable mind to present arguments.
13	I used identifying thinking errors a lot because I found it helpful last week
14	I was able to use these strategies to not become anxious or use catastrophic thinking and instead find practical solutions, for example mindfulness was particularly helpful and effective.
15	The observe skills I found very useful as it is easy to remember and use
16	I did use the mindfulness skills, however, particularly when walking to and from college. I especially used observe and describe which made me feel calmer as I wasn't worrying/thinking
17	Mindfulness skills – observe, describe and participate – creates a calm, relaxed mindset and separates stress of day – calm, positive mindset.
18	Replacement strategies – focussing on positive – negative becomes less prominent.
19	I use observed, describe, participate skills when I go to the gym, it helps to maintain focus and forget about everything
20	Observe and describe were more useful but observe was most effective in keeping my focus and describe helped with losing track of time while working/watching tv or taking a break.
21	Accepting situations – not fighting the way things are if I cannot change them
22	and doing my best to deal with them in the present moment – living in the now vs an illusionary future – that, I find helpful.
23	so focusing on breathing and listening to music seemed to distract myself from the thoughts and made me realise I had plenty of time. Also using overgeneralisation made me realise even if I did bad in these tests, it's not reflective of my work ethic as a whole.
24	I used the mindfulness skills again …only I did them more effectively. However, the what skills found to be more effective than other mindfulness skills, as they allowed me to enter a calmer state of mind and focus on the here and now.
25	allowed me to realise I was over exaggerating and creating more stress, and I replaced the thoughts with things like "I've revised all I can up to this point so there's no point in worrying right before the test because nothing will change."
26	I tried to use the wise mind when my friends were debating about TV shows in the canteen so that no-one's feelings were hurt by people's comments
27	I used the describe skills when eating the night before..and it helped to take my mind off
28	I find the what skills still very helpful especially when walking home from college. They help to make me feel much more relaxed.
29	I used contribution and activities, which helped a lot to make me feel calmer and more relaxed.
30	ACCEPTS was effective as it provides various techniques to achieve calmness and to dilute negativity.
31	Observe , describe and participate all have a positive effect on me
32	I like to use techniques like mindfulness (meditation) and acceptance
33	days which I have a lot to do/get through in terms of college work especially.
34	used catastrophising to remind myself that it wasn't the end of the world if it wasn't all done, my lecturers would understand.
35	so met with a friend and went on a walk down the beach, which put me in a better frame of mind and allowed me to think more positively.

Sheet1

Ready

1	**9. Difficulties Encountered**
2	Still felt slightly anxious
3	Over rationalised some thoughts which made it less effective
4	I tried using it, for example, when I thought I had done badly on a test. However, I found it didn't have much of an effect on the way I was feeling. Although I had tried to stop thinking pessimistically, using magnification, I still felt anxious about how I had done ar A
5	I didn't want to use replacement strategies
6	I tried to use the describe skills but it did not help
7	I used the other skills less as they just aren't a thing I'm used to doing so would forget to use them. I didn't use the balancing 3 minds as I wasn't sure how to apply it.
8	I didn't use the identifying thinking errors strategy because it didn't work for me in the first week.
9	With identifying thinking errors I find it difficult to practically apply these strategies when in everyday life.
10	3 from balancing 3 minds I tried but frustratingly the balance was either in reasonable side's favour or the emotional one's.
11	I find that blaming my thinking patterns for the way I feel is not helpful for me personally
12	But bad points were still made
13	I tried to identify thinking errors to change them. Although I could identify that I was thinking pessimistically, I did not know how I could change this.
14	I tried to be non-judgemental about a situation I faced, this proved more difficult than I thought.
15	Balancing 3 minds was not as effective as other techniques – if emotions are high it may be hard to consider rational and wise mind.
16	Balance of 3 minds is difficult and frustrating to achieve
17	I did not use the replacement strategies as I generally do not find them easy or helpful to use.
18	I did not use participate skills
19	I used the distress tolerance skills I found them hard to use
20	I checked the facts however I believe I used it in the wrong situation and therefore found it troublesome.
21	
22	
23	
24	
25	
26	I tried to use the what skills/focus on breathing... I do not feel that it worked for me
27	I rated the pros and cons a 1 because I thought about it but did not make one due probably to my habit or procrastination –
28	The ACCEPT skills I could not think how to apply it when stressed.
29	I tried to use how skills and ABC PLEASE but found they did not have much effect on the way I was feeling.
30	Balancing 3 minds was not effective as whilst being in a negative mood it is difficult to think rationally and change mindset
31	How skills – not so effective as judgement is hard to separate from a situation you are encountering.
32	just have had a lot of info in my lectures this week this brain is fried.
33	Every rating with 3 I tried but didn't have much of an effect on me.
34	How skills allow me to judge a situation mindfully
35	I like to concentrate on staying present in the moment, accepting the moment the way it is and I listen to music for outside stimulus with a positive effect

Sheet1

Ready

Examples of the process of reviewing and refining themes
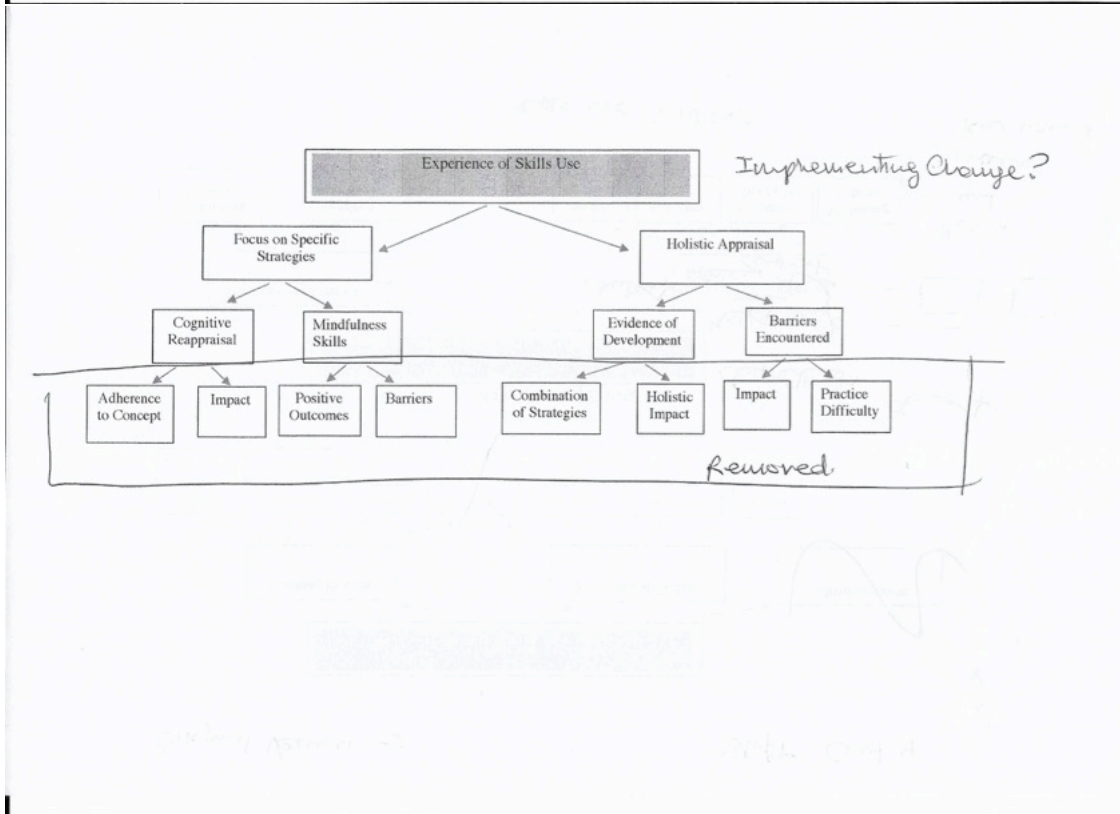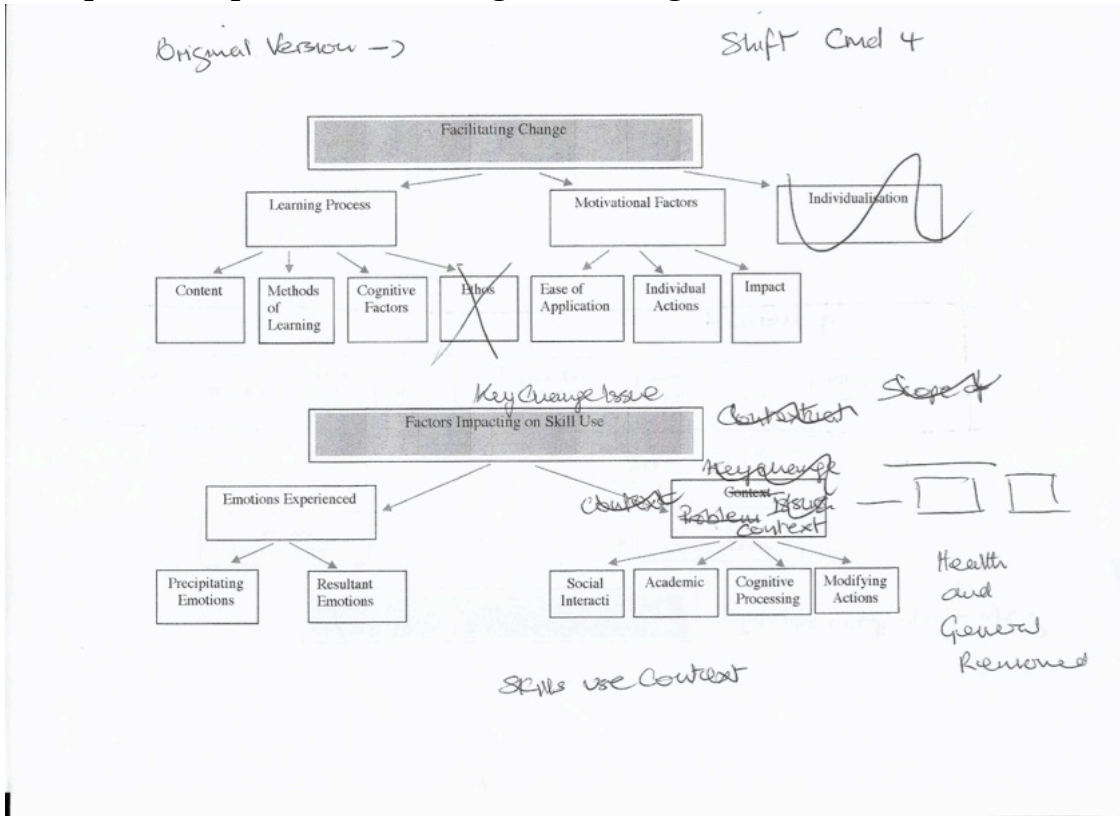
Appendix B2: Quantitative Raw Data

Table 1a: Resiliency scales pre and post measures (T Scores)

Participant	MAS Pre	MAS Post	REL Pre	REL Post	REA Pre	REA Post
1	46	44	53	46	55	60
2	60	56	47	51	41	37
3	33	45	31	26	59	61
4	46	44	45	47	56	52
5	58	56	46	53	54	59
6	49	49	45	46	56	45
7	45	52	48	53	58	46
8	47	43	46	46	54	54
9	42	46	38	36	52	50
10	37	37	31	31	55	51
Mean	46.3	47.2	43.0	44.5	54.0	51.5
SD	8.27	6.05	7.30	7.65	4.99	7.53
r		0.78		0.85		0.63
Cohen's d Effect Size		0.173		0.365		0.427

Resiliency Sub-Scales Pre and Post Measures

Table 1b: MAS sub-scale pre and post measures (scaled score equivalents)

Participant	Optimism Pre	Optimism Post	Efficacy Pre	Efficacy Post	Adaptability Pre	Adaptability Post
1	3	10	4	7	6	11
2	11	10	14	14	13	11
3	5	9	5	8	6	10
4	9	9	9	8	9	9
5	14	13	11	10	13	12
6	10	9	11	11	6	11
7	10	12	7	10	9	10
8	9	7	10	8	10	10
9	7	10	7	8	9	9
10	8	6	6	6	5	9
Mean	8.6	9.5	8.4	9.0	8.6	10.2
SD	3.10	2.07	3.13	2.31	2.88	1.03
r		0.38		0.81		0.40
Cohen's d Effect Size		0.300		0.324		0.606

Table 1c: REL sub-scale pre and post measures (scaled score equivalents)

Participant	Trust Pre	Trust Post	Support Pre	Support Post	Comfort Pre	Comfort Post	Tolerance Pre	Tolerance Post
1	8	8	12	11	8	8	12	8
2	8	8	12	12	6	9	11	11
3	4	4	5	10	2	2	8	11
4	9	8	10	11	4	4	10	12
5	9	12	11	13	7	7	9	11
6	7	8	9	10	8	7	11	11
7	8	12	12	12	8	8	10	10
8	7	7	10	10	9	10	10	9
9	6	4	10	6	3	5	8	10
10	3	3	5	6	4	3	8	8
Mean	6.9	7.4	9.6	10.1	5.9	6.3	9.7	10.1
SD	2.02	3.10	2.63	2.38	2.47	2.67	1.42	1.37
r		0.84		0.59		0.88		-0.04
Cohen's d Effect Size		0.281		0.219		0.314		0.199

Table 1d: REA sub-scale pre and post measures (scaled score equivalents)

Participant	Sensitivity Pre	Sensitivity Post	Recovery Pre	Recovery Post	Impairment Pre	Impairment Post
1	12	14	14	14	10	11
2	7	7	6	6	9	7
3	13	14	9	13	13	13
4	11	9	13	12	11	11
5	12	12	12	14	11	12
6	12	9	7	7	13	9
7	13	10	12	10	12	8
8	10	10	14	12	11	11
9	9	10	10	9	12	10
10	10	9	10	11	13	11
Mean	10.9	10.4	10.7	10.8	11.5	10.3
SD	1.91	2.27	2.79	2.78	1.35	1.83
r		0.68		0.78		0.34
Cohen's d Effect Size		0.293		0.054		0.642

Table 2: Modified DBT WCCL pre and post Measures

Participant	Pre-Skills Use	Post-Skills Use	Pre-DCS	Post-DCS
1	9	8	4	4
2	6	8	2	2
3	8	10	5	6
4	10	7	5	5
5	9	12	5	5
6	8	7	5	3
7	5	9	2	1
8	7	7	1	2
9	5	3	2	3
10	5	9	3	1
Mean	7.2	8	3.4	3.2

Table 3: Modified WHO-5 wellbeing staff ratings pre and post measures

Participant	Pre-Score	Post-Score
1	25	-
2	30	-
3	20	26
4	27	34
5	29	37
6	31	39
7	29	35
8	32	36
9	32	39
10	22	28
Mean	27.7	34.25
SD	4.16	4.83
SE	1.32	1.67

Table 4: Diary sheet participant ratings of strategy usefulness

Strategy	Frequency of Useful Ratings	DS1	DS2	DS3	DS4	DS Total	Total Ratings
Cognitive Reappraisal	0.68	7	5	2	7	21	31
Balancing 3 minds	0.46		5	2	4	11	24
What skills	0.88		8	7	8	23	26
How skills	0.36			2	3	5	14
ACCEPTS	0.73			4	7	11	15
Pros and Cons	0.22				2	2	9
Radical Acceptance	0.64			3	4	7	11
Check the facts	0.13				1	1	8
ABC PLEASE	0.25				2	2	8
Ride the Wave	0.25				2	2	8

Table 5: Post course questionnaire student rankings of strategy sefulness

Strategy	Top 3	Bottom 3
Cognitive Reappraisal	7	1
Balancing 3 minds	2	4
What skills	9	1
How skills	2	4
ACCEPTS	5	3
Pros and Cons	0	1
Radical Acceptance	3	5
Check the facts	0	2
ABC PLEASE	2	2
Ride the Wave	1	4