# Doctorate in Professional Educational, Child and Adolescent Psychology

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# Institute of Education, University of London

# Doctorate in Professional Educational Child and Adolescent Psychology

# **Doctoral Thesis**

Contextualising emotion regulation: A mixed-methods approach to understanding the mechanisms through which emotion controllability beliefs influence adolescent anxiety

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**Declaration** 

I, Foteini Platsia, confirm that the work presented in this thesis is my own. Where

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Initial word count: 34,981 (word count with amendments: 42,446)

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#### Abstract

Given the developmental challenges and opportunities encountered during adolescence, and the current COVID-19 context, it seems particularly important to consider protective factors for adolescent mental health, and especially anxiety. One such factor relates to the beliefs adolescents hold about whether they can control their emotions. One mechanism for explaining the link between emotion controllability beliefs and anxiety may be emotion regulation. Believing that emotions can be controlled may encourage the use of 'healthy' (over 'unhealthy') emotion regulation strategies, which can in turn, lead to better mental health outcomes. Recent revisions to the most widely used process model of emotion regulation (Gross, 2015) suggest that emotion controllability beliefs influence not only emotion regulation choice but the whole emotion-generative-and-regulation process. Research has, however, rarely examined what happens in the different stages of the emotion regulation process (other than the stage of strategy selection), or why certain strategies are preferred over others. Further, theory and research have mainly focused on intra-personal emotion regulation processes, despite emotion regulation often occurring in a social context and likely being influenced by it. The present study aimed to examine the relationships between adolescent emotion controllability beliefs, emotion regulation, and anxiety; explore the 'how' and 'why' of emotion regulation processes, and investigate aspects of the interpersonal context perceived as helpful/hindering in the regulation of anxiety. Year 9 - 11 students recruited from 10 English secondary schools completed questionnaires (n=81) examining the relationships between emotion controllability beliefs, emotion regulation, and anxiety, and semi-structured interviews (n=10) exploring intra- and inter-personal emotion regulation processes. Quantitative findings demonstrated an indirect effect of emotion controllability beliefs on anxiety via 'healthy' emotion regulation. Thematic analysis elicited six themes: manifestations of anxiety; negative views around anxiety; individual, contextual and interpersonal factors (affecting emotion regulation choices); and emotionally containing environments. Implications for emotion

regulation theory, Educational Psychology (EP) practice, mental health assessment and intervention, and educational practices are presented and discussed.

## **Impact Statement**

This research examined the relationship between adolescents' emotion controllability beliefs, emotion regulation, and anxiety in the context of mainstream secondary schools in England. It further explored *how* adolescents with differing emotion controllability beliefs perceive the generation and regulation of anxiety, and *what reasons* they give for using certain emotion regulation strategies more frequently than others. Emotion regulation often occurs within a social context, and is likely influenced by it; this research, therefore, also explored which interpersonal processes adolescents perceive as helpful/hindering in the generation and regulation of anxiety. To date, for the study of emotion controllability beliefs in adolescence, research has almost exclusively relied on quantitative data, therefore the present study is the first known study to adopt a mixed-methods design: using questionnaires to examine the relationships between emotion controllability beliefs, emotion regulation, and anxiety, and interviews with adolescents to allow for a more in-depth exploration of intra- and inter-personal emotion regulation processes.

Research findings have contributed to academic literature as well as professional practice for Educational Psychologists (EPs), educators, and policy makers looking to enhance adolescent mental health. Key implications for stakeholders include:

• Mental Health Intervention: Given that employing effective versus less effective emotion regulation strategies may depend on whether adolescents believe that they can control their emotions or not, emotion controllability beliefs may constitute an impactful intervention target. Further, there may be value in supporting adolescents to expand their emotion regulation strategy toolkit, so that they can more confidently and readily apply 'healthy' emotion regulation strategies in a variety of contexts. EPs who have a unique skillset in adapting and delivering therapeutic interventions in

- educational contexts could be involved in the development of relevant school-based programmes.
- Normalisation of (Non-Pathological) Anxiety: Students held negative views about
  the experience of anxiety. Utilising psychoeducational approaches, schools can
  increase student understanding of what anxiety is, when it is helpful/less helpful, and
  establish a school climate where it is safe for students to be open about their
  experiences.
- Systems of Support: Students discussed the importance of having access to attuned others during the anxiety generative and regulatory process. Clearly identifiable pastoral teams, school-based councillors, and designated teachers for each year group operating with an open-door policy could have a central role in promoting the use of interpersonal support by providing a safe space for attuned interactions. Further, teaching staff should consider making practical adjustments to the classroom and school environment to help students feel 'contained' and regulate their anxiety.
- Emotion Regulation in Context: Gross' process model (2015), one of the most widely used emotion regulation frameworks, has been largely conceptualised as operating within-person. This research demonstrated that emotion regulation is a complex process, the stages of which can be impacted by a number of factors linked to adolescent motivation, the presence of others, and the wider context in which anxiety is generated and regulated. The process model should, therefore, not be examined nor applied without consideration to one's circumstances and context. EPs, as key professionals in promoting up-to-date knowledge and understanding about emotion regulation, should ensure frameworks serve as tools to help understand children and young people as they exist within systems rather than as separate entities.

# Acknowledgements

A big thank you to all my participants, and especially the ones who took part in interviews and so openly shared their experiences with me.

Additional thanks to my research supervisors, Matt Somerville and Jey Monsen, for your invaluable feedback, support, and encouragement during a difficult time. Thanks also to my placement supervisor, Rosie Lee, and university tutor, Nicola Mollet, for sharing your knowledge with me and always having kind words.

Thank you to my family for always being there, and special thanks to our newly added member, Katerina, for spreading much needed smiles and joy to all.

I am hugely grateful to my friends for always listening to me, for the walks, the podcasts, their vast knowledge of songs to keep me going, and generally for keeping me sane.

And especially to Paolo, for believing in me no matter what, for your patience, humour, and incredible cooking skills!

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# **List of Abbreviations**

BAI-Y Beck Anxiety Inventory for Youth

CAMHS Children and Adolescent Mental Health Services

DfE Department for Education

DfES Department for Education and Skills

DoH Department of Health

DSM Diagnostic and Statistical Manual of Mental Disorders

EBSNA Emotionally Based School Non-Attendance

EC Emotion Contagion

ELSA Emotional Literacy Support Assistants

EPs Educational Psychologists

ERQ Emotion Regulation Questionnaire

ERQ-CA Emotion Regulation Questionnaire for Children and Adolescents

IER-Q Interpersonal Emotion Regulation Questionnaire

LA Local Authority

NICE National Institute for Health and Care Excellence

PSHE Personal, Social, Health, and Economic Education

SENCOs Special Educational Needs Co-ordinators

TA Thematic Analysis

TEP Trainee Educational Psychologist

UK United Kingdom

WHO World Health Organisation

#### 1. Introduction

The present study examines the relationship between adolescents' beliefs about whether they can control their emotions, emotion regulation, and anxiety in the context of mainstream secondary schools in England. This research further explores *how* adolescents with differing emotion controllability beliefs perceive the generation and regulation of anxiety, and *what reasons* they give for using certain emotion regulation strategies more frequently than others. By directly gaining adolescents' insights on what influences how they move through different stages of the emotion regulation process, the present research endeavours to expand existing knowledge about the most widely used model of emotion regulation, the Extended Process Model (Gross, 2015). Apart from intrapersonal factors affecting emotion regulation, the current research recognises the importance of the social context, by also exploring which interpersonal processes adolescents perceive as helpful/hindering in the experience and regulation of anxiety. Findings from the study are hoped to inform emotion regulation theory, Educational Psychology (EP) practice, assessment, mental health intervention, educational practices and policy.

This chapter introduces concepts and terms used, discusses the current societal context and its implications for adolescent anxiety, the role of EPs in promoting mental health in schools, and outlines the rationale for this research.

## 1.1 Adolescents in Context

## 1.1.1 Developmental Considerations

Adolescence, as defined by adolescents themselves, is a time when major developmental changes and transitions to different contexts and social roles occur (Vaghi & Emmott, 2018). According to the World Health Organization [WHO] (2014), adolescence generally ranges from 10 to 19 years of age. While more recently public health researchers have debated that in developed countries this should be extended to 24 years to account for the impact of current socio-economic changes on development up till that age (Sawyer et al.,

2018), the present research recognises that age alone may not constitute enough of a marker for defining this developmental period and instead the range of adolescent experiences in the population under examination needs to be considered.

In the 'Global North', academically, adolescents are faced with a transition to a new school setting, which often goes alongside increased expectations around the amount and quality of work produced, and different grading systems compared to their primary school experiences; this context often leaves less time for developing trusting, emotionally supportive relationships with teachers (Blackwell et al., 2007; Larson et al., 2002; Roeser et al., 2000a). Further socio-emotional challenges encountered include fluctuating relationships with peers, seeking to redefine relationships with parents/carers (Larson et al., 2002), and adopting new social roles (Sawyer et al., 2018). Taking on new roles may not happen simultaneously across different contexts, therefore causing worry and uncertainty; for example, adolescents may be expected to take on adult responsibilities in educational settings, while still being viewed and responded to as children at home (Vaghi & Emmott, 2018). Adolescents additionally undergo significant biological changes linked to puberty, which can further affect their emotional states (Dahl, 2004).

During adolescence, students are more likely to experience a decline in their emotional wellbeing (Larson et al., 2002). Intrinsic motivation can decrease (Lepper et al., 2005), and school performance can decline, especially right after their transition to the new school (Anderson et al., 2000). Further, cognitive risk factors present during that period (Hankin et al., 2016) have been found to contribute to an increase in internalising difficulties such as anxiety (Dahl & Gunnar, 2009; Hankin et al., 1998). Changes in the socio-emotional structures of the brain also contribute to a rise in reward and pleasure-seeking tendencies during puberty, which, in turn, have been associated with less cognitive control and more maladaptive, 'risk-taking' behaviours (Steinberg, 2008).

Alongside the challenges and risk factors often documented in research, adolescence may also present various opportunities and positive changes in a person's life. In a recent

study, where students aged 14-18 living in England were asked about their experiences, they indicated that they enjoy being given more autonomy as this can promote self-inquiry and exploration of their self-identities, which in turn has been associated with emotional and psychological wellbeing (Vaghi & Emmott, 2018). Sawyer and colleagues (2018) argue that in developed countries, such as England, where the present study is conducted, better living conditions, better health, and nutrition have accelerated the rate of biological growth in adolescence, particularly in relation to brain volume, structures and affect regulatory systems, thus opening up new possibilities for this population. It, therefore, seems logical to presume that adolescence presents not only risks but also a range of opportunities regarding mental health, constituting a key time for intervention. The present study aims to examine ways in which adolescent mental health can be enhanced, and in particular whether emotion regulation is the mechanism for explaining links between adolescents' beliefs about their emotions and anxiety symptoms.

#### 1.1.2 Historical Circumstances: Recession and Austerity

Alongside the academic, emotional and biological changes, adolescents also have to adapt to the ever changing socio-cultural and historical contexts in which they live. According to Bronfenbrenner's bioecological model (1995), in order to understand a person's development and behaviour, one must consider both the time during which processes happen, and the person's characteristics and interactions between contexts closely situated to the individual (such as family and the school environment). It is, therefore, important to look at the socio-cultural context operating in the United Kingdom (UK) over the last 20 years, and why within such a context adolescent mental health promotion should be high on the agenda.

Most notable are the austerity measures implemented following the 2008 financial crash, and the significant impact of these financial policies on children and young people's lives. Following data published by the Institute of Fiscal Studies (2009), child poverty emanating partly from the economic crisis and following austerity measures, were expected to keep rising for at least 10 years after the recession in the UK. Indeed, there is a large body

of evidence demonstrating how the economic recession and austerity measures are associated with anxiety, sadness, depression, and poor mental health overall (Frasquilho et al., 2016; Quaglio et al., 2013; Skapinakis et al., 2006; Stuckler et al., 2017). Findings illustrate that irrespective of whether the economy recovers or not the effects of adversity and poverty are likely to transfer from one generation to the next (Laaksonen et al., 2007), having a lasting impact on children and young people's future opportunities, and general mental health throughout adulthood (Ng et al., 2013). It is therefore likely that the generation of adolescents employed for the purposes of the present study has been to an extent impacted by these historical circumstances, and their mental health has been somewhat compromised.

## 1.1.3 The Impact of the COVID-19 Pandemic

Also influencing the current societal context during which the research was conducted is the Covid-19 pandemic and associated measures introduced worldwide to attempt to slow the spread of the virus. Amongst some of the measures introduced in England were social distancing, suspension of schools (and moving to electronic platforms for learning), cancelling of school examinations, measures which generally disrupted daily life and people's routines (Lee, 2020).

The mental health survey which collected data from children and young people and their families at various stages of the pandemic suggested an increase in the mental health needs of children and young people compared to data gathered prior to the pandemic: 39% of six – 16-year-olds, and 52% of 17 – 23-year-olds reported experiencing worse mental health during the pandemic (NHS Digital, 2021). Similarly, Mansfield et al. (2022) found that the pandemic likely reduced life satisfaction and increased adolescent mental health symptoms, with teenagers with pre-existing mental health needs or from poorer households reporting the highest rates of anxiety and depression symptoms. Further examining the impact of individual circumstances and disadvantaged backgrounds during the pandemic, researchers from the Resilience, Ethnicity and AdolesCent mental Health (REACH) project conducted a smartphone diary study with adolescents. Students reported low motivation due to a lack of

routines and school structures, worries about exams and their future, a loss of purpose, a sense of little control over their lives, and stresses around their and their family members' health. While some adolescents experienced these issues more acutely than others, such stressors and experiences were to a large extent shared amongst adolescents (The REACH research team, 2021). The literature has repeatedly demonstrated that prolonged exposure to stress is linked with adverse outcomes and worse mental health for children and young people (e.g., Bucci et al., 2016; Cianfarani & Pampanini, 2021; de Figueiredo et al., 2021). Acknowledging the current societal context, the limited control adolescents may have over it, and its likely lasting impact, the present study aims to examine factors which promote positive mental health which are easily targeted and altered through intervention.

# 1.2 The English Educational Context and Mental Health

Schools can play an important role in supporting students who experience mental health difficulties (Weare, 2015; Weare & Nind, 2011). This has been highlighted in a number of governmental policies over the years: the National Service Framework for children, young people and maternity services (Department of Health, 2004) which placed teachers within Tier One of Children and Adolescent Mental Health Services (CAMHS), promoting the identification and early support of students with 'mild' mental health needs in schools; the Targeted Mental Health in School initiative that aimed to include schools in the delivery of services for children and young people who experience more severe mental health needs (Department for Children, Schools and Families, 2008); and the recent creation of the designated mental health lead position in schools following publication of the Green Paper 'Transforming Children and Young People's Mental Health Provision' (Department for Education & Department of Health [DfE; DoH], 2017). It is clear that schools' responsibilities in relation to supporting children and young people's mental health needs are expanding, and they are expected to work preventatively (alleviating mental health risk factors) as well as reactively (delivering interventions to support students) (Loades & Mastroyannopoulou, 2010).

### 1.3 The Educational Psychologists' Role

As disparities between CAMHS capacity and children and young people's mental health needs have become more pronounced, and thresholds for accessing CAMHS more stringent (Thorley, 2016), Educational Psychologists (EPs) seem uniquely positioned to work with schools to support students with mental health difficulties. Despite their underrepresentation in relevant government initiatives and publications (e.g., in Transforming Children and Young People's Mental Health Provision: A Green Paper, 2017), EPs can be central in bridging the gap between educational and health settings (Dunsmuir & Hardy, 2016), and as scientists-practitioners, they can use their broad skillset to promote mental health in schools (Sedgwick, 2019). EPs can draw upon research to inform their practice as well as make use of their professional experiences to critically interpret research findings, and are therefore able to offer great insight into what works to support children and young people's mental health in context (Fonagy, 2005; Fox, 2003). Despite misrepresentations of EPs as professionals who work at the individual level with students who experience difficulties in school (Thorley, 2016), EPs are trained to also work at a systemic, preventative level, for example, by delivering training, providing staff supervision, and developing and delivering therapeutic interventions to groups of students with mental health needs (Dunsmuir & Hardy, 2016). This study examines factors that could play a vital role in the development of mental health difficulties: adolescent emotion controllability beliefs. Therefore, the findings from this research are hoped to enable EPs to support schools more effectively in promoting the mental health of their students.

### 1.4 Rationale for The Present Study

Given the historical context, the current societal climate, and the developmental challenges and opportunities encountered during adolescence, it seems particularly relevant to consider ways in which adolescents' mental health can be enhanced. One factor potentially determining adolescent mental health appears to be students' beliefs about whether they can control their emotions. Due to its inherent 'potential for change', this factor offers a promising intervention avenue and has therefore attracted increasing interest in recent years (Romero

et al., 2014). Despite this, there is only a small body of longitudinal, cross-sectional and laboratory studies documenting links between emotion controllability beliefs and mental health (De Castella et al., 2013, 2014, 2015, 2018; Kappes & Schikowski, 2013; Romero et al., 2014; Schroder et al., 2015a, 2016; Tamir et al., 2007), and even fewer studies examining these in youth and adolescence (Romero et al., 2014; Tamir et al., 2007). In addition, studies that have examined emotion controllability beliefs in adolescence have mainly focused on depressive symptoms (Ford et al., 2018; Romero et al., 2014) rather than a wider spectrum of mental health needs.

One mechanism for explaining the links between emotion controllability beliefs and various socio-emotional outcomes may be emotion regulation. Emotion regulation is "the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions ... to accomplish one's goals" (Thompson, 1994, pp.27-28). Based on the process model of emotion regulation (Gross, 1998a), the use of different emotion regulation strategies leads to different psychological health-related outcomes. In adolescents, the use of 'unhealthy' regulatory strategies has been associated with anxiety (Schäfer et al., 2017), while the use of 'healthy' emotion regulation strategies has been linked to more effective regulation of the emotional experience (Kalokerinos et al., 2015), and decreased likelihood of experiencing mental health difficulties (Compas et al., 2017). It is still unclear how individuals choose an emotion regulation strategy and why some individuals are better than others at regulating their emotional experience, but one possibility is that believing that emotions can be controlled encourages healthy emotion regulation. In a recent revision of the process model, it was posited that emotion controllability beliefs influence not only emotion regulation choice but the whole process of emotion generation and regulation (Ford & Gross, 2018). Research has, however, mainly focused on the 'selection (of regulatory strategies) stage' (De Castella et al., 2013; Smith et al., 2018; Tamir et al., 2007) and has paid little attention to how emotion controllability beliefs impact other stages of the emotion regulation process (e.g., the identification of emotion or implementation of the emotion regulation strategy). Furthermore,

while a few experimental studies have started to demonstrate that contextual factors can influence emotion regulation strategy choice (Sheppes et al., 2011; Troy et al., 2013), the reasons why certain regulatory strategies are preferred over others are not yet fully understood.

Contemporary emotion regulation theoretical frameworks, including Gross' process model, and emotion regulation research have almost exclusively focused on intrapersonal processes; however, emotion regulation typically occurs in a social context, with individuals often utilising that social context to maximise emotion regulation success. Little attention so far has been paid to interpersonal emotion regulation processes (Zaki & Williams, 2013), with research investigating what interpersonal aspects of the social context enable such processes in adolescence being particularly sparse.

Unique contributions. Expanding on the aforementioned studies, the present research aims to examine the relationship between emotion controllability beliefs, emotion regulation, and adolescent anxiety. Other studies that have examined emotion controllability beliefs in adolescence mainly focused on depressive symptoms (e.g., Ford et al., 2018); the present study is the first known study to focus on adolescent anxiety in England within the emotion controllability beliefs literature. Furthermore, it aims to assess emotion controllability beliefs using first-person items (e.g., 'No matter how hard I try, I can't really change the emotions that I have'); these have been found to contribute to the unique variance on measures of emotion regulation and mental health (De Castella et al., 2013), as opposed to general emotion controllability beliefs measures (e.g., 'People can't really change the emotions that they have') which have been used in previous adolescent studies.

In order to further address gaps in the study of emotion controllability beliefs and emotion regulation, the present research will explore *how* adolescents with differing emotion controllability beliefs perceive the generation and regulation of their emotions, and *what reasons* they give for preferring certain regulatory strategies over others. Furthermore, the present study will explore *which aspects of the interpersonal context*, where adolescents'

anxiety is generated and regulated, are perceived as helpful (or less helpful). The majority of studies that have examined emotion controllability beliefs in adolescents to date (Ford et al., 2018; Romero et al., 2014; Schleider & Weisz, 2016; Smith et al., 2018) have almost exclusively relied on quantitative data. The present study will use quantitative data to examine relationships between the main variables (emotion controllability beliefs, emotion regulation, anxiety), and qualitative data to allow for a more in-depth exploration of intra- and interpersonal emotion regulation processes.

### 2. Literature Review

This chapter will begin by reviewing the literature on mental health and anxiety including definitions, prevalence in the UK, the impact for children and young people, and aetiological processes underpinning anxiety. Next, conceptual frameworks underpinning emotions and emotion regulation, and the literature on emotion controllability beliefs, including research linking emotion regulation and emotion controllability beliefs, and emotion regulation and mental health, will be examined. The last section will outline identified literature gaps and the aims of the current study.

For the purposes of the present literature review, systematic (including the databases of PsycINFO, SCOPUS, and BEI) and non-systematic (i.e., Google searches for governmental reports and public health surveys) literature review approaches were adopted. Terms used included health", "mental "anxiety" (with variations including "anxiety disorders/difficulties/needs" and "internalising difficulties"), "adolescence" (with variations "teenagers/youth/young people"), "emotion regulation", "emotion beliefs/theories", "implicit theories of emotion" (including "entity/incremental theories of emotion" and "growth/fixed mindsets of emotion"), "interpersonal emotion regulation" (with variations "interpersonal/affect regulation/co-regulation"). Articles from 2001 until 1st April 2021 were included. References in the area of emotion controllability beliefs were also provided by the research supervisor of the present study to start the literature review process; these included adult/youth (as opposed to adolescent only) samples especially where relationships between emotion controllability beliefs, emotion regulation, and mental health were examined due to the scarcity of research in this area. Finally, reference lists of relevant articles were utilised.

### 2.1 Mental Health and Anxiety

#### 2.1.1 Definitions

Mental health, as conceptualised by WHO (2005, 2017), does not simply mean the absence of mental health problems. Mental health encompasses a "state of well-being"

whereby the individual is aware of their capabilities, remains resilient in the face of everyday life difficulties, works towards achieving their self-chosen life goals, and plays an active part in their society. This positive dimension of mental health has been highlighted by Westerhof and Keyes (2010) who identified three vital elements of mental health: psychological wellbeing in the sense of perceived self-efficacy and achieving self-actualisation; emotional wellbeing in the sense of experiencing, acknowledging and expressing one's emotions; and social wellbeing in terms of belonging and relating to others in the community. They have acknowledged that the complete lack of mental illness throughout one's lifecycle is not likely, and therefore proposed that mental health and mental illness exist on two distinct but interdependent continua.

Both these definitions are moving away from the more traditional, narrow portrayal of mental health as a state of complete absence of psychopathology and presence of positive feelings (see Waterman, 1993), acknowledging that it is a more multi-faceted concept. The dual-continuum model of mental health has, however, been criticised as non-inclusive in the sense that it does not account for all the different life experiences and environmental factors that affect a person's trajectory (Galderisi et al., 2015). Indeed, extensive research in the past 30 years has demonstrated the significant impact that exposure to a range of protective and risk factors has on mental health (see the BELLA study group et al., 2008). For the purposes of the present study, where considerations of developmental factors, historical circumstances and societal context are made, the conceptualisation adopted is in line with the dual-continuum model as well as Galderisi's and her colleagues' (2015) definition of mental health as "a dynamic state of internal equilibrium", which leaves more room for acknowledging resilience and risk factors (p.231).

According to the National Institute for Health and Care Excellence (NICE, 2014) and WHO (2017), anxiety is a group of mental health 'disorders' which includes social anxiety disorder, post-traumatic stress disorder, obsessive-compulsive disorder, body dysmorphic disorder, and generalised anxiety disorder. This definition refers to clinically diagnosed, or as

otherwise known, 'pathological' anxiety which is characterised by high intensity, frequency and persistence over time, and which can significantly affect the individual's day-to-day functioning. This conceptualisation of anxiety is in line with categorical classification systems of mental health difficulties such as the International Classification of Diseases (ICD, 11<sup>th</sup> edition) (WHO, 2018) and the Diagnostic and Statistical Manual of Mental Disorders (DSM, 5<sup>th</sup> edition) (American Psychiatric Association, 2013). The symptomatology of the specific anxiety disorders is defined and described in these diagnostic manuals.

While these diagnostic classification manuals have been founded on the basis that assessment of the specific symptoms can help individuals get a more accurate diagnosis, which can in turn lead to receiving more targeted support (NICE, 2014), by concentrating on certain thresholds they have been criticised for their lack of variability in anxiety symptoms (Fonseca & Perrin, 2000). Recently, a conceptualisation of anxiety on a spectrum, where anxiety-related behaviours range from non-pathological to severe, has gained popularity. This is in order to capture those anxiety symptoms within the population which do not necessarily meet the ambiguously established criteria for an anxiety diagnosis according to the classification systems, with the hope that this will enrich our understanding of the development of anxiety and accordingly shape intervention routes (Essau et al., 2012; Mazzone et al., 2007; Shear et al., 2002).

Indeed, anxiety is not always maladaptive. Anxiety can be understood as a reaction generated from the brain when an individual is faced with a perceived threatening situation, so that they can act and avoid danger (Beesdo et al., 2009; Pine et al., 2009). The capacity of the brain to generate such a response starts from birth and carries on through to adulthood. However, during early stages of development, distinguishing whether anxiety is a useful, adaptive response to a situation or not can be especially hard and unreliable if only based on the child's expression. This is because certain symptoms of anxiety can be typically part of certain stages of development (e.g., anxiety about separation from their main caregiver in early infancy or worries about rejection from their social circle during adolescence), and so

they typically subside once the children and young people move on to their next stage of life (Beesdo et al., 2009; Weems & Stickle, 2005). This highlights the importance of examining anxiety 'in context', especially when it comes to children and young people, rather than solely relying on the symptom and its intensity as posited in within-person diagnostic models. The current study, therefore, examines anxiety not only through self-report measures which focus on specific symptoms but also through interviews with adolescents where the contextual factors influencing anxiety are considered.

Emphasis on accounting for developmental stages is also placed in Stallard's (2009) portrayal of anxiety, who further adds that children and young people's life circumstances and experiences are equally important when it comes to their expression of anxiety. He proposed that only when these two factors have been taken into consideration, one can examine the persistence and pervasiveness of anxiety in terms of children and young people's everyday functioning (Stallard, 2009; Stallard et al., 2014). He suggested that in order to design appropriate interventions, attention should be paid to the specific cognitive (thoughts and evaluations of the anxiety-evoking event), physiological (bodily sensations), and behavioural (the actual response to the event) elements of anxiety, which vary from individual to individual. This conceptualisation of anxiety, as opposed to clinical definitions, is preferred for the present study. While it is acknowledged that this dimensional view of anxiety has been criticised for utilising measures that lack factors that fit the DSM corresponding categories of anxiety (Fonseca & Perrin, 2000), this conceptualisation seems more in line with a holistic understanding of the individual and the ecological systems model adopted by a large number of EPs (MacKay, 2007).

#### 2.1.2 The Scale of Need

Following data from NHS Digital (2018), gathered from three surveys about children and young people's mental health in England in 1999, 2004, and 2017, 12.8% of five to 19 years old children and young people were found to suffer from (at least) one mental health difficulty in 2017. The most common (8.1%) mental health difficulty appeared to be 'emotional

disorders', a category which included anxiety. Additionally, a slight but steady increase of these 'emotional disorders' was shown over time for children and young people aged five to 15. Emotional difficulties were found to be more common during late adolescence, with 14.9% of 17 to 19-year-old young people meeting the criteria for an emotional difficulty, 13.1% of whom had an anxiety 'disorder' at the time of assessment.

While this is the first survey in England to include data for 17- to 19-year-olds, a number of factors that can pose limitations to the interpretation of the findings should be considered. Notably, data collection differed for each age group; for instance, the triangulation of data (parent, teacher, children and young people reports) was only possible for 11- to 16-year-olds, indicating that caution needs to be applied when discussing mental health trends across age groups. Further, one of the criteria for participation in the survey was being registered with a General Practitioner. However, findings from NHS England (2018) suggest that inequalities (e.g. children living in poverty) can affect access to the health and social care system. Therefore, this criterion may have affected the representativeness of the sample.

Of interest are the findings of The Children's Society survey (2019) in which 32% of parents reported that their children and young people had experienced a mental health problem, a percentage significantly higher than the prevalence rates indicated in the NHS Digital survey discussed above. While one should be cautious when interpreting parental reports due to the likely high variance in their perceptions of mental health problems when compared to mental health practitioners, perhaps such discrepancies are to an extent indicative of children and young people in the community with non-diagnosable mental health conditions who experience significant functional impairments. In another study by Pitchforth and colleagues (2019), a secondary analysis of repeated cross-sectional national health surveys was performed in order to examine the mental health trends for children and young people in the UK between 1994 and 2014. A marked increase in the prevalence of lasting mental health difficulties was found among children and young people in the UK over the past few years. The researchers, however, highlight that differences between lasting (diagnosable)

mental health difficulties and scores in self-report mental health measures may reflect a discrepancy between what clinical questionnaires used by professionals can capture in terms of the range and intensity of mental health difficulties and actual need.

More recently, as addressed in the introduction of the present thesis, evidence has begun to demonstrate an increase in the mental health needs of children and young people following the Coronavirus pandemic (NHS Digital, 2021; Young Minds, 2021). While more longitudinal studies are needed to more accurately evaluate the impact of the pandemic, consideration should also be given to the negative impact on mental health services resulting in a significant post-Covid backlog and an increase in waiting times of up to a year for some children and young people, which may have further exacerbated difficulties (Health and Social Care Committee, 2021b, 2021a; Young Minds, 2021). In acknowledgement of aforementioned limitations relating to design, materials used and sampling strategy, the present study will employ a design which allows participation of any adolescent attending an English mainstream secondary school irrespective of their socio-economic background and whether they have a diagnosis of anxiety of not. Further, the present study will utilise materials which conceptualise anxiety as existing on a spectrum without focusing on ambiguously defined thresholds, therefore hoping to capture the variability of anxiety symptoms as experienced by adolescents themselves.

#### 2.1.3 The Impact of Anxiety

According to Public Health England (2016), anxiety in children and young people is associated with early school avoidance and leaving. In a systematic review by Esch and his colleagues (2014), the strong relation among anxiety and school non-attendance was also highlighted, with the researchers noting that this relationship is bi-directional and often not direct. Interestingly, they found that the mediating factors examined in most studies were not ones easily targeted and altered through intervention, highlighting a need for anxiety research to broaden its scope to include variables over which an individual can have control. With regards to the educational context, anxiety has also been found to have a significant impact

on attainment. In a study by Mazzone and his colleagues (2007), where the relationship between school grades and self-reported anxiety in students eight to 16 years old was examined, a statistically significant negative association was found ( $x^2$ =11.68).

Engagement with learning and school performance have been long linked with outcomes in a range of areas later in life (Rutter, 1995). Indeed, the adverse impact of adolescent anxiety can be evident in various domains in adulthood. Goodman and colleagues (2011) found that mental health difficulties, including anxiety, experienced by the age of 16 can have significantly negative effects on employability, wage, and general income by the age of 50. In another study examining the course of anxiety (Morin et al., 2011), high levels of anxiety were found to persist all the way through to adulthood for about 40% of the participants. The adolescents with persisting anxiety symptoms were at significantly higher risk of experiencing difficulties related to drug abuse, loneliness, and depression as adults, when compared to students who had experienced fewer symptoms of anxiety as adolescents. These findings suggest that adolescent anxiety, especially when symptoms experienced are intense, for a large number of individuals is not a short-lived difficulty and can have various life-long consequences, highlighting the importance of reducing risk factors, strengthening resilience factors, and offering support to adolescents who need it when they need it.

# 2.1.4 Aetiology of Anxiety

To be able to offer timely support, one must first understand the aetiological processes underlying anxiety. These can be linked to both general factors as well as those factors specific to the development of adolescents. As it is beyond the scope of the present literature review to focus on all the potential risk factors for adolescent anxiety, only a brief mention is included, followed by a more detailed discussion of the specific factors investigated in the present study: emotion regulation and emotion controllability beliefs.

Regarding developmental issues, during adolescence a number of changes in certain brain regions take place; increased plasticity and immaturity in structures linked to inhibition

means that these may become overwhelmed under emotionally-evoking situations (Spear, 2013; Steinberg, 2008). Elevated emotional reactivity to stressful stimuli, and the associated prolonged sympathetic nervous system activation have been associated with an increased likelihood of experiencing internalising difficulties and anxiety (Calhoun et al., 2012; Hankin et al., 2010; Hastings et al., 2007). Finally, changes linked to puberty and the release of pubertal hormones which lead to physical changes have been linked to higher levels of stress and concerns about one's body image (Grant, 2013; Hyde et al., 2008; Reardon et al., 2009).

With regards to general factors linked to the development and maintenance of anxiety, one of the most robust predictors seems to be about the children and young people's environment and life experiences. Given that the current study is conducted in England, where the economic crisis and austerity measures following the financial crush in 2008 are currently further worsened by the impact of the pandemic, it is important to acknowledge research which examines the impact of financial adversity on the determinants of mental health. During such times, 'risk factors' become more prevalent, while 'protective factors' are likely to be debilitated (WHO, 2011), and this is especially relevant for children and young people's mental health. For example, many of the protective factors compromised, are ones established during pregnancy such as the mother refraining from alcohol consumption and keeping a healthy lifestyle; during infancy and childhood such as meeting the child's primary needs, and establishing trusting relationships. All these constitute periods particularly vital for a child's mental health and resiliency later in life (Werner & Smith, 2001; WHO, 2011). Further, experiencing adverse life events (e.g., exposure to poverty, prolonged stress, violence, etc.) early in life has been associated with an increased risk of internalising difficulties in adolescence; this relationship seems to be mediated by changes in the development in the areas of cognition, especially with regards to their perception of threat, and physiology, especially on the hypothalamic-pituitary-adrenal axis which regulates responses to distressing stimuli (De Venter et al., 2013; Harkness & Hayden, 2019; Phillips et al., 2015; Zare et al., 2018). Specific parenting factors such as 'overprotective' parenting styles and 'modelling' of mistrust responses have been further associated with anxiety in children and young people (Bosquet & Egeland, 2006; Davila et al., 2010; De Rosnay et al., 2006; Degnan et al., 2010; Fisak & Grills-Taquechel, 2007; Kessler et al., 2010; McLeod et al., 2007). Disrupted attachment and psycho-physiological reactivity have been linked to an individual's ability to regulate their emotion (Gross, 1998b), which has been, in turn, associated with adolescent anxiety (Young et al., 2019).

Triggers of anxiety in the school context. Especially in the classroom and school context, research demonstrates that a number of stressors may be present during the developmental stage of adolescence (Anniko et al., 2019; Bagana et al., 2011; Cavanaugh & Buehler, 2015; Huberty, 2010). As students progress through formal education, they are not only faced with an increase in responsibilities and tasks, different grading systems and higher standards of academic work compared to their primary school experiences, but they are also expected to become more independent with their learning. This context often leaves less time for developing trusting, emotionally supportive relationships with teachers (Blackwell et al., 2007; Larson et al., 2002; Roeser et al., 2000a) and has been associated with experiencing stress and anxiety (Hampel et al., 2008). Further triggers of anxiety in the secondary school context relate to tests and assessments, which seem to have increased over time and during this stage of education especially in the UK (Jindal-Snape & Miller, 2008). Specific consideration should also be given to exams which have the potential to determine important future outcomes for students such as entering college, and have therefore been linked to high levels of anxiety (Sena et al., 2007). Alongside preparing for high stake exams, sources of anxiety encountered on a day-to-day basis for students may also include an increase in homework, pressures from educational staff especially in schools where performance in assessments is used to measure the school and teaching effectiveness, a competitive school and classroom climate, peer performance comparisons, classroom and testing contexts which do not encourage student focus and motivation (e.g., noisy classrooms or poorly constructed tests), and insufficient and/or ineffective teaching instruction (Cassady, 2010; Howard, 2020;

Kouzma & Kennedy, 2004; Putwain & Daniels, 2010; Salend, 2011). Finally, concerns and anxiety in relation to social aspects of the school environment, such as navigating romantic relationships, being accepted by peers and 'fitting in', which become closely connected to one's development of self-identity during this stage of life, should not be overlooked (Anniko et al., 2019; Hamilton et al., 2015).

The experience of anxiety. While a level of anxiety may be a normative response to the increased academic and socio-emotional demands encountered during adolescence, the experience and manifestation of anxiety should not be undermined (Huberty, 2010). As also discussed above, anxiety can manifest at a cognitive (thoughts and evaluations of the anxietyevoking event), physiological (bodily sensations), and/or behavioural (the actual response to the event) level (Stallard, 2009). With regards to the cognitive components of anxiety, the individual may experience repetitive thoughts associated with "possible threatening outcomes and their potential consequences" (e.g., I don't know anything and I will fail the test) (Huberty, 2010, p. 530). At the same time, experiencing anxiety has been linked to an activation of the autonomic nervous system (e.g., increased heart rate, activation of sweat glands etc.), also encountered in situations threatening to one's safety where the body gets ready to fight or flight (Alkozei et al., 2015; Beesdo et al., 2009b; Huberty, 2010). Finally, the behavioural manifestations of anxiety may include withdrawal or avoidance of the anxiety provoking situation (e.g., appearing overly quiet or even leaving the classroom), or fight responses if the child or young person is finding it particularly hard to regulate anxiety (Hanie & Stanard, 2009; Huberty, 2010).

# The psychological process linking emotion controllability beliefs, emotion regulation and anxiety

According to the process model of emotion regulation (Gross, 1998a, 2015), the most comprehensive and widely used emotion regulation framework, one factor which can affect the experience and regulation of emotion (e.g., anxiety) appears to be students' beliefs about whether they can control their emotions. The process model posits that emotion generation

constitutes a cyclical process which evolves over a period of time: an emotionally triggering event occurs (e.g., the class teacher announces a surprise test to the class) and the individual evaluates this in relation to their desired state of the world (e.g., wanting to perform well but not having revised for the lesson); in an attempt to address the difference between their desired state of the world and their perception of it, an evaluative emotional reaction is generated (e.g., anxiety). During the 'identification stage', where the decision whether the perceived emotion (anxiety) requires regulation is made, holding beliefs that emotions are somewhat not controllable is thought to negatively affect the individual's motivation to attempt to regulate. If the individual moves on to the stage of selecting an available strategy, believing that emotions are relatively uncontrollable is likely to negatively impact the number of strategies considered as well as the effectiveness and quality of the selected strategy. Specifically, believing that emotions cannot be controlled is thought to encourage the selection and implementation of 'unhealthy' (over 'healthy') emotion regulation strategies which should lead to more negative emotional and psychological health-related outcomes over time. As the cognitive demand made by different regulation strategies can vary widely, Gross (2015) posits that individuals face different levels of cognitive load depending on the selected strategy, with potentially different, negative or positive, cumulative effects. Therefore, a student who does not believe that they can control their anxiety but who due to the multiple triggers of anxiety present in the secondary school context may often experience anxiety in the classroom, is more likely to use ineffective or maladaptive strategies to regulate their anxiety, and struggle to regulate anxiety, therefore over time being more likely to experience negative emotional and mental health outcomes.

This process is likely to be of particular relevance for students in educational settings. Not being able to regulate anxiety in the classroom context has been found to significantly compromise attention and memory, executive functions in general, and student academic performance (Chamberlain et al., 2011; Salend, 2011). In turn, this can negatively influence self-confidence in oneself as learner, it can contribute to lack of motivation and effort with

school work, which can over time contribute to underachievement in a range of areas, negative attitudes towards school, absenteeism and earlier school leaving, and adverse future outcomes (Chamberlain et al., 2011; Cizek & Burg, 2006; Hanie & Stanard, 2009; Howard, 2020; Huberty, 2010; Kouzma & Kennedy, 2004; Putwain & Daniels, 2010; Salend, 2011). Students with significant difficulties regulating anxiety may also present as 'disruptive' in the classroom, with social and/or behavioural difficulties, and therefore can be misunderstood by educational staff as unmotivated, not interested in learning or as lacking in cognitive skills and abilities compared to peers (Cassady, 2010; Huberty, 2010). Furthermore, not being able to regulate anxiety in social situations in school may contribute to difficulties navigating social relationships such as resolving peer conflict when this arises, social withdrawal and isolation, feelings of loneliness, and worse emotional and psychological health outcomes in the future compared to non-anxious peers, or peers better able to regulate their anxiety (Cavanaugh & Buehler, 2015; Hanie & Stanard, 2009; Lasgaard et al., 2011; Salend, 2011; Vanhalst et al., 2013).

Schools play an important role in promoting not only learning and academic achievement but also the emotional and mental health of their students (Weare, 2015), as also highlighted in a number of governmental policies over the years (e.g., the National Service Framework for Children, Young People and Maternity Services [DoH, 2004]; the Targeted Mental Health in Schools initiatives, [Department for Children, Schools and Families, 2008]; the Green Paper 'Transforming Children and Young People's Mental Health Provision', [DfE; DoH, 2017]). In acknowledgement of the close link between learning, emotion regulation in the classroom and mental health, schools' responsibilities in relation to promoting students' emotional and psychological health are expanding, and they are expected to work preventatively (alleviating mental health risk factors) as well as reactively (delivering interventions to support students) (Loades & Mastroyannopoulou, 2010). Schools may, therefore, be in a key position to address students' beliefs about whether they can control their emotions or not, so that they can better regulate arising anxiety, and set them on a healthy

emotion regulation pathway, with potentially more positive mental health outcomes in the future.

Further, given the current societal context of COVID-19, where there is reason to believe that the mental health of this generation of adolescents may be compromised, successful emotion regulation in the face of stressful events may be particularly important. According to Kazdin & Blase (2011), there needs to be a big change in the way support for mental health difficulties is offered as well as in the content of interventions available; with a focus on prevention, intervention should aim to unpick aetiological factors underpinning mental health problems and concentrate on weakening those risk factors that are possible to control. There is reason to believe that one of such factors may be adolescents' emotion controllability beliefs, as research has begun to demonstrate that these beliefs may influence emotion regulation (De Castella et al., 2013). EPs are well placed to promote prevention and early intervention in schools (Baxter & Frederickson, 2005), and while ensuring that systemic issues are also addressed, they should promote a focus on mental health protective factors that the individual can have control over. The current research focuses on two such factors: adolescents' emotion controllability and (intra- and inter-personal) emotion regulation. The below section will include definitions of these concepts, a review of the theory and research in this area.

# 2.2 Determinants of Mental Health: Emotion Controllability Beliefs and (Intraand Inter-personal) Emotion Regulation

While the field of emotion regulation has been increasingly attracting the interest of researchers from various disciplines in recent years, there have been considerable differences in the way they have conceptualised emotion regulation and related constructs. These differences have created lack of clarity and confusion around what exactly the concepts of emotion, beliefs about emotion, and emotion regulation mean, let alone how they are operationalised and studied.

In a recent overview of the concept of 'emotion', Gross (2015) noted that despite the large variability in the way emotion is understood across different approaches, there are three main characteristics of emotion present in all 'schools' of thought:

- i. Emotions are not only defined by the way they are subjectively experienced; they also involve changes in behavioural expression such as changing one's body posture and facial expression, and changes specific to the situation such as retreating or 'fighting'. Changes also happen on the physiological level and these are evident both prior to engaging in an emotion-related action (preparing the body for what is expected to follow) and last until after the emotional response (see Kreibig, 2010; Mauss et al., 2005).
- ii. Emotion 'unfolding' is a dynamic process and it can generally range from seconds to minutes (Cunningham & Zelazo, 2007). Emotion unfolding is closely linked to the way in which the individual evaluates the specific situation in the specific context that it occurred, which further impacts the generation of the aforementioned behavioural, physiological, and experiential changes. While emotion progression seems to happen linearly at first, the potential of the emotional response to actually alter the event that triggered the emotion in the first place, makes it more of a circular process (see Barrett et al., 2007).
- iii. The usefulness or harmfulness of emotions seems to be reliant on the particular context in which they evolve. When emotions promote socially suitable responses, assist information processing, and encourage the consideration of all available options before acting, they can be useful. How intensely emotions are experienced, how long they last for, how often they get triggered, and what the nature of the emotion itself is, are important matters in determining the usefulness (or not) of emotions (Gross & Jazaieri, 2014).

## 2.2.1 Emotion Controllability Beliefs

It seems that emotions can generate a powerful experience for the individual and can have a pervasive impact on how individuals respond to their environment. As emotions are so central to the human experience, it is understandable that time and effort is invested in thinking, theorising and developing beliefs about emotions (Ford & Gross, 2019; Ford & Mauss, 2014; Harmon-Jones et al., 2011; Tamir, 2009). One's theoretical understanding of emotion can in turn affect their perception, management, and even experience of emotions (Barrett, 2012; Ford & Gross, 2019). One particularly foundational type of emotion belief concerns the controllability of emotions: whether one believes that they can exert control over and change their emotional experience. Debates about the controllability of emotions go back centuries; from the philosophical school of Stoicism, which placed the individual in the centre of emotion control, to intellectuals such as Freud, who posited that emotions are often confined 'out of our awareness', the conversation about 'who is in control' has been enduring (Ford et al., 2018). In more recent years, Dweck and her colleagues have introduced *implicit theories*, or *mindsets* as otherwise referred to, which concern the controllability and malleability of personal attributes such as emotion (Dweck, 1986, 1999; Dweck et al., 1995a, 1995b).

Considering the interest that beliefs about emotion controllability have attracted throughout human history, only a few studies have empirically examined these and the impact of holding such beliefs on the individual. In the past 15 years, preliminary research has focused on assessing beliefs about emotion controllability in adults and interesting trends have begun to emerge; a relatively small body of longitudinal, cross-sectional and laboratory studies have found links between people's emotion controllability beliefs and mood, psychological health outcomes, and general wellbeing (De Castella et al., 2013, 2014, 2015, 2018; Kappes & Schikowski, 2013; Romero et al., 2014; Schroder et al., 2015, 2016; Tamir et al., 2007).

Similar have been the findings of the even fewer studies examining these beliefs in adolescence and youth. In one of the first studies to examine emotion controllability beliefs in young people, it was demonstrated that students who believed emotions can be controlled before starting college, experienced better socio-emotional outcomes and higher levels of

wellbeing by the end of their first year in college, as measured using self-report questionnaires and peer-reports (Tamir et al., 2007). Similarly, De Castella and colleagues (2013) found a moderate association between undergraduate students' emotion controllability beliefs, wellbeing, and psychological distress. While De Castella et al.'s study (2013) did not involve a longitudinal design and only relied on self-report measures, it is one of the first studies to focus on a specific symptom of mental illness in young people, stress. This finding was more recently expanded to adolescents by Romero and others (2014): students who transitioned to secondary education holding beliefs that emotions were controllable were less likely to experience depressive symptoms, and if they had initially reported low levels of general wellbeing, this was more likely to improve by the end of 'middle' school. The links between depressive symptoms and emotion controllability beliefs have been further highlighted in another cross-sectional and longitudinal study by Ford and colleagues (2018).

While these studies enrich our understanding about the links between emotion controllability beliefs and mental health, they do not demonstrate whether emotion controllability beliefs in adolescence can change, somewhat limiting the applicability of these important findings. Even though there have been a few studies with adults that experimentally manipulated adults' emotion controllability beliefs (e.g., see Bigman et al., 2016; De Castella et al., 2018), only one study with adolescents has so far provided evidence for the malleability of emotion-control beliefs at this stage of development. Specifically, Smith and others (2018) conducted a randomised control intervention which aimed to change students' emotion controllability beliefs through interactive online sessions. Not only did the beliefs about emotions being uncontrollable change for the students who accessed the sessions, but improvements in their emotional wellbeing in school were also reported. This study provided us with some interesting initial evidence about the potential role of schools in supporting students who struggle to emotionally adjust during adolescence.

While emotion controllability beliefs research is starting to grow, and existing studies have demonstrated that measuring such beliefs is feasible, when one reviews materials used

to assess emotion controllability beliefs there appears to be some ambiguity and confusion around which concept is specifically being measured (De Castella et al., 2013). Most of the studies examining emotion controllability beliefs in adolescents have asked participants to indicate their level of agreement with vague items, which reflected others' beliefs about emotion controllability (e.g., "If they want to, people can change the emotions that they have") (as in Ford et al., 2018; Romero et al., 2014; Smith et al., 2018). While these general beliefs about emotion controllability have been associated with wide ranging consequences for psychological health, in a study by De Castella and others (2013) it was demonstrated that the general emotion controllability beliefs scale did not contribute to the unique variance on the measures of psychological distress and wellbeing once personal emotion controllability beliefs were controlled for. General emotion controllability beliefs were predictive of psychological health, however personal emotion controllability beliefs, a scale assessing beliefs about emotion controllability using first-person items (e.g., "No matter how hard I try, I can't really change the emotions that I have") were found to more consistently account for the unique variance on the outcome variable. This is in line with research findings indicating that goals, perceptions, motivation, and performance are better linked to specific personal (as opposed to general) beliefs about one's attribute (Bandura, 2006; De Castella & Byrne, 2015). To date, three studies examining emotion controllability beliefs in adults (see De Castella et al., 2013, 2018; Tamir et al., 2007) have used the personal emotion controllability beliefs measure to assess these. However, no study known to the researcher has so far examined emotion controllability beliefs in adolescents using a first-person measure.

# 2.2.2 Emotion Regulation

While the avenues through which emotion controllability beliefs impact mental health may be many, emotion regulation seems to be a particularly promising mechanism for explaining the relationship between these two (Ford & Gross, 2019; Kneeland et al., 2016). emotion regulation, a relatively recent construct in psychology, has been conceptualised differently by different scholars and various emotion regulation models have been developed.

According to Larsen (2000), who presents one of the more traditional models of emotion regulation, individuals are motivated to change their subjective affective experience, and in particular increase positive emotions and reduce negative ones. When one manages to do so effectively, it is more likely that they will experience psychological health. Larsen (2000) further suggests that it is important to conceptually separate emotions from moods, as for example emotions have a shorter duration compared to moods and it is clearer what behavioural response is required in order to change an emotion. Interestingly, the proposed differences between these two concern mainly intensity and duration as opposed to 'type of affect', and so the suggested regulation strategies for emotions and moods are not seen to significantly differ.

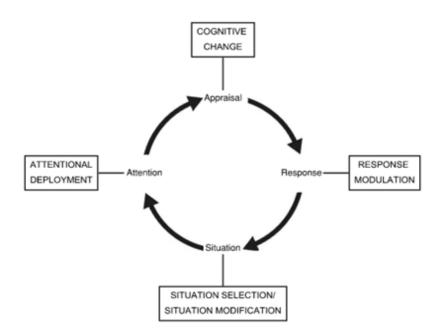
Koole's model (2009), similarly to Larsen (2000), portrays emotion regulation as serving a hedonic function by aiming to meet immediate needs but further highlights that regulatory efforts can be goal- and person-orientated. The regulatory strategies employed can vary depending on the likely function of emotion regulation, but they are always aimed at the person's attention, knowledge, or physiological responses. Koole (2009) suggests that emotion regulation has a strong link with and pervasive effect on mental health outcomes; for example, regulatory efforts directed at meeting the needs that arise in the moment as opposed to the individual's goals are likely to result in short-term relief as opposed to long-term gains in psychological health.

According to Gratz and Roemer's model (2004), emotion regulation is not only about 'controlling' one's emotional reaction; it is emphasised that the individual also needs to acknowledge, value, and accept their emotions. That way individuals can be more in tune with the context in which emotional arousal was generated and be more flexible when employing relevant emotion regulation strategies. This framework essentially focuses on the individual's abilities to emotionally regulate and posits that given one has the capacity to emotionally regulate, both goals and needs can be met within the emotion regulation process.

While the scope of this literature review is not to discuss all the emotion regulation models developed, it is important to review Gross' process model, one of the most comprehensive and broadly quoted frameworks (Gross, 1998a, 1998b, 2015). According to Gross (1998b, 2001), emotion regulation is defined as a process during which regulatory strategies are employed in order to modulate one's emotional experience and response to a situation; strategies may be utilised to maintain, intensify, or reduce arousal levels and emotional responses, and they can occur both at a conscious and unconscious level. Gross' process model posits that as emotion generation unfolds over time, following a distinct sequence of stages (situation – attention – appraisal - response), relevant emotion regulation strategies employed are targeted and linked to each one of these stages (see Figure 1). The five categories of emotion regulation strategies identified include situation selection, situation modification, attentional deployment, cognitive change, and response modulation (see Figure 1) (Gross, 2015, p.6). The cyclical route of the emotion regulation process in Figure 1 illustrates how the emotional response can alter the situation that triggered the emotion.

Figure 1

The process model of emotion regulation depicted in circular format.



Note. Reprinted from "Emotion Regulation: Current Status and Future Prospects", by J. J. Gross, 2015, Psychological Inquiry, 26 (1), p.6.

More recently, in an attempt to answer questions about how emotion regulation strategies are generated, what regulation entails, who engages in it and why some individuals manage to successfully regulate their emotions, while others do not succeed, Gross expanded on his initial model and presented the extended process model of emotion regulation (Gross, 2015). This model posits that:

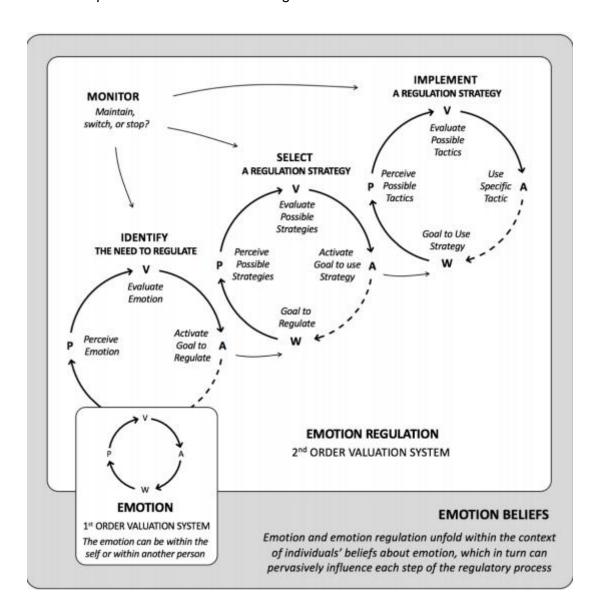
emotions fundamentally involve valuation – a determination of what is "good for me" versus "bad for me". This valuation process compares one's perception of the world (e.g., being late to an important interview) to one's desired state of the world (e.g., wanting to perform well during the interview), resulting in an evaluative reaction (e.g., anxiety) (Ford & Gross, 2018, p. 9).

According to Rangel et al. (2008), numerous valuation systems exist and emotions represent the activity of one of them (Ford & Gross, 2018). Valuation systems are thought to evolve over time, change 'form' based on prior experiences, and trigger relevant responses only when inputs related to the specific valuation system are received (Ochsner & Gross, 2014). Similarly therefore to Gross' initial model (1998b), the emotion generation process is presented on a cyclical, temporal dimension: the valuation system unfolds with an emotionally triggering event re-produced in the *world (W)*, which is *perceived (P)* by the individual, and *evaluated (V)* according to their desired state of the world (e.g. a certain goal); in an attempt to address the difference between their desired state of the world and their perception of it, the individual *acts (A)*, generating an emotional response (see Figure 2) (Ford & Gross, 2018, p.11). As portrayed in Figure 2, valuation systems can be ordered hierarchically: emotion which receives its 'input' from the world constitutes a 'first-order' valuation system, while emotion regulation is a 'second-order' valuation system receiving its input from emotions. The emotion regulation system therefore unfolds as follows: an emotion is 'received' and perceived

by the individual, it is evaluated as one that requires regulation, and the subsequent action taken serves to regulate that emotion (Ford & Gross, 2018; Gross, 2015).

Figure 2

The extended process model of emotion regulation.



Note. Reprinted from "Emotion Regulation: Why beliefs matter", by B. Q. Ford & J. J. Gross, 2018, *Canadian Psychology*, *59* (1), p. 11.

Figure 2 depicts an interesting new element of the extended process model: how the valuation systems interact and shape each other. Consistently with Gross' initial model (1998b), emotion regulation is a process which involves multiple steps and takes place over a

period of time. The systems linked to emotion regulation shown in the Figure include the identification, selection, and implementation stage. Adding to his original model, Gross posits that individuals are in a position to review how they are progressing through the different stages of emotion regulation. Reviewing progress in regulating emotions can be more important in certain stages; that is after the implementation stage when individuals need to consider what the most appropriate course of action is: to stop, maintain, or alter their regulatory attempts (Ford & Gross, 2018).

The revisions of the model, especially with regards to the interactions between valuation systems and the different pathways taken in the emotion regulation process depending on inputs and experiences, seem particularly relevant to the work of EPs. The use of executive and practice frameworks is particularly pertinent in the role of EPs (Wicks, 2013). By making the mechanisms underpinning psychological processes explicit, frameworks assist EPs in multiple levels of the formulation journey (e.g., information gathering, consideration of eco-systemic and within person factors, hypotheses generation etc.) and enhance their role as scientists-practitioners (Sedgwick, 2019). The extended process model is the most comprehensive emotion regulation framework to date, and can therefore be of unique use to EPs supporting children and young people with difficulties in this area.

## 2.2.3 Emotion Regulation and Emotion Controllability Beliefs

The extended process model is the first theoretical model to not only propose links between emotion controllability beliefs and emotion regulation, but to also discuss how emotion controllability beliefs may exert control on each stage of the regulation process (Ford & Gross, 2018). During the identification stage, where the decision whether the perceived emotion requires regulation is made, holding beliefs that emotions are somewhat not controllable is thought to negatively affect the individual's motivation to attempt regulating. If the individual moves on to the stage of selecting an available strategy, believing that emotions are relatively uncontrollable is likely to negatively impact the number of strategies considered as well as the effectiveness and quality of the selected strategy. Next, as the individual

attempts to implement the chosen regulatory strategy, if they hold beliefs about emotions being uncontrollable, they are likely to find themselves having little experience and knowledge of using adaptive strategies, which may in turn affect how effectively they manage to implement them. Finally, during the stage of assessing progress and deciding on their course of action, an individual holding beliefs that emotions are uncontrollable may be inclined to change strategy on various occasions, or quit trying altogether, demonstrating limited determination and trust in their initial tactic.

Indeed, a small body of research on emotion controllability beliefs and emotion regulation has begun to document links between these two. In a cross-sectional and longitudinal study by Tamir et al. (2007), students' beliefs about emotions being relatively uncontrollable, as measured before their transition to college, were associated with using a 'healthy' emotion regulation strategy less frequently. Expanding on these findings, De Castella and colleagues (2013) showed that the relationship between undergraduate students' emotion controllability beliefs and wellbeing was explained through the use of an adaptive emotion regulation strategy. While most of the studies demonstrating how emotion controllability beliefs influence the emotion regulation process have been focused on adults, recently a study extended these findings on adolescents; in a cross-sectional and longitudinal study by Ford and colleagues (2018), a 'healthy' emotion regulation strategy was found to mediate the relationship between emotion controllability beliefs and depressive symptoms in adolescents.

Based on the extended process model of emotion regulation, most of the studies seem to have focused on the selection stage of the emotion regulation process. According to Gross' and Ford's hypothesis (2018) above, the impact of emotion controllability beliefs on this stage may be two-fold: believing that emotions are uncontrollable may limit the number of strategies considered before deciding on the one that is perceived as the most effective; the strategy finally selected is also expected to be maladaptive or less efficient in achieving emotion regulation (Ford & Gross, 2018). The three aforementioned studies, therefore, seem to have focused on the second part of this hypothesis.

Interestingly, in a study that taught adolescent students that emotions can be controlled through an online module, students' beliefs that they could use a 'healthy' emotion regulation strategy effectively were found to explain the positive effect of the intervention on school wellbeing (Smith et al., 2018). According to Ford and Gross' theorising (2018) about the impact of emotion controllability beliefs on each stage of the emotion regulation process, this study may provide initial evidence for the influence of emotion controllability beliefs on the implementation stage. Surprisingly, little attention has been paid to the impact of adolescents' emotion controllability beliefs on the rest of the stages of the emotion regulation process. Furthermore, the studies which have provided evidence for links between emotion controllability beliefs and specific regulation strategies (De Castella et al., 2013; Ford et al., 2018; Tamir et al., 2007) have often utilised questionnaire data focused on the type of strategy selected, paying little attention to the specific circumstances under which a given strategy is preferred, how it is selected, or why. According to Ford and Gross (2018) "[...] literature has led to a rich understanding of the correlates [...] of specific regulation strategies, but it has rarely parsed the different phases of regulation (identification, selection, implementation, monitoring). Differentiating among these phases will require novel approaches" (p.33). Questions such as when, how and why certain strategies are selected over others, how the individual goes about 'operationalising' each strategy, how can different strategies be used at the same time, or how these can be effectively sequenced, are some of the many questions around the emotion regulation and emotion controllability beliefs that remain unanswered (Gross, 2015).

# 2.2.4 Emotion Regulation and Mental Health

While theory and research have enriched our knowledge about the likely antecedents of emotion regulation strategies, namely emotion controllability beliefs, it is also important to examine what the outcomes of using certain emotion regulation strategies over others are. Theoretically, the selection and operationalisation of different emotion regulation strategies should lead to different emotional outcomes. As the cognitive demand made by different

regulation strategies varies widely, individuals face different levels of cognitive load depending on the selected strategy, with potentially different cumulative effects. Additionally, as emotion and emotion regulation unfold over time, different regulation choices at different phases of the process should produce distinct physiological reactions, experiences and responses for each individual (Gross, 2015).

According to Gross' initial model (1998b), strategies employed before the response, or as otherwise referred to, antecedent-focused strategies, are generally considered more adaptive as they can impact the whole regulation process by changing both the expression and experience of emotion; strategies employed during or after the response (see Figure 1), also known as response-focused, are seen as less adaptive as they occur much later in the process, once the emotion has already unfolded. Two of the most commonly studied regulatory strategies include cognitive reappraisal and suppression. When an individual uses cognitive reappraisal, an antecedent-focused strategy, they cognitively alter the meaning of the situation and target the experience of their emotion (Aldao et al., 2010). With regards to suppression, a response-focused regulatory strategy, two conceptualisations have been most prominent within the emotion regulation literature: supressing thoughts and experiences related to emotions, and suppressing the expression of the emotion itself (through altering facial expressions, body posture etc.), which is often referred to as expressive suppression (Gross & Thompson, 2007). Frequent use of antecedent-focused strategies is likely to lead to the experience of more positive emotion and generally, more positive emotional outcomes; conversely, more regular uses of response-focused strategies are expected to result in experiencing higher levels of negative emotion, and relevant negative consequences (Gross & John, 2003). Not being able to change the experience and expression of emotion, and therefore effectively regulate, is likely to be linked to mental health problems, especially during vulnerable periods of development such as adolescence.

Indeed, in a recent meta-analysis of 35 studies with adolescents 13-18 years old, students with anxiety symptoms were more likely to use maladaptive regulatory strategies

such as suppression and avoidance, and less likely to use adaptive strategies such as reappraisal and problem-solving (Schäfer et al., 2017). In another meta-analytic and narrative review of 212 studies by Compas et al. (2017), the use of maladaptive regulatory strategies, and suppression specifically, was associated with clinical forms of mental health difficulties, whereas the use of adaptive regulatory strategies was linked to below-threshold mental health difficulties in children and young people. It should be noted that the majority of studies included in both meta-analyses examined the effects of using suppression and reappraisal, with only a small body of literature including strategies from other families of regulatory strategies. In order to enrich our understanding of the links between emotion regulation and mental health difficulties, it is important that the effectiveness of a variety of strategies is explored.

In a more recent meta-analysis, another gap in the emotion regulation literature was noted: a lot of attention has been paid to the way in which dysregulation and strategies for the regulation of negative emotions (e.g., anger) link with mental health difficulties, but only a few studies have focused on positive regulatory strategies or conceptualised emotion regulation as a skill (Moltrecht et al., 2020). While using regulatory strategies flexibly so that they match the type of emotion is important for effective emotion regulation, Aldao et al. (2015) and Kobylińska and Kusev (2019) emphasised that regulatory strategies need to be also examined in relation to the context in which the emotion was generated. The relationship between context and emotion regulation was explored in a study by Troy and her colleagues (2013); adults who were under uncontrollable stress were found to experience fewer depressive symptoms when they used reappraisal, whereas adults with some control over the stressful event experienced more depressive symptoms when the same regulatory strategy was used. Similar were the findings of a study by Sheppes et al. (2011), where the use of reappraisal or distraction was found to be dependent on the level of intensity of the experimental condition the individual was in. While these are findings with potentially far-ranging implications, research in this area has been limited and more studies are needed in order to gain a fuller understanding of how contextual factors influence emotion regulation efforts.

# 2.2.5 Socially Shared Emotion and Emotion Regulation

One specific aspect of the environment which has been overlooked within Gross' model and emotion regulation research is the presence of others. As evidenced in the literature review of the present study, emotion regulation literature has almost exclusively focused on intrapersonal processes, and little attention has been paid to interpersonal emotion regulation processes despite emotion regulation usually occurring in a social context with individuals often utilising that social context to maximise emotion regulation success. interpersonal emotion regulation, as Rimé (2007) initially conceptualised it, encompasses sharing one's experience of emotion with others after an emotion has fully evolved. Since then, various definitions of the concept of interpersonal emotion regulation have been proposed and they all seem to agree on interpersonal emotion regulation involving regulatory processes which take place 'in the context of live social interactions' with an aim to increase emotion regulation success (Dixon-Gordon et al., 2015; Hofmann, 2014; Niven et al., 2009; Williams et al., 2018; Zaki & Williams, 2013). The individual's intention to alter their emotional experience is highlighted, therefore separating interpersonal emotion regulation from interpersonal processes which may happen at a more unconscious level without a specific regulatory goal such as emotion contagion or attachment (Hofmann, 2014; Zaki & Williams, 2013).

In acknowledgement that different phenomena associated with interpersonal emotion regulation have been studied in isolation over the years, and in order to more fully capture the range of regulatory processes employed by individuals in the social context, Zaki and Williams (2013) integrated current empirical knowledge within an interpersonal emotion regulation framework. This framework distinguishes between intrinsic versus extrinsic, and response-dependent versus response-independent interpersonal emotion regulation processes. Intrinsic interpersonal emotion regulation includes processes where the individual seeks another in order to regulate more effectively, whereas extrinsic interpersonal emotion regulation involves processes where the individual attempts to regulate another. Both intrinsic

and extrinsic interpersonal emotion regulation processes may require a specific response from another (*response-dependent*) or may not rely on the other to reply to their regulatory attempt in a certain manner (*response-independent*). By broadening the concept of interpersonal emotion regulation to include extrinsic interpersonal processes such as empathic and supportive interactions, and prosocial behaviours, when these are driven by regulatory goals, Zaki (2020) has highlighted the importance of considering a wider range of aspects of the social environment to more fully understand what influences the course of emotion regulation. Existing research on interpersonal processes has been largely lab-based and focused either on the person looking for support (e.g., when studying the benefits of social sharing) or the person offering regulatory support (e.g., when studying empathic responses); real-life interactions however involve an exchange between the two operating in parallel (Zaki & Ochsner, 2009).

Zaki and Williams (2013) argue that interpersonal emotion regulation exists on the same continuum as other (intrapersonal) regulatory strategies, and effective emotion regulation is intimately tied with interpersonal emotion regulation processes; for example, choosing to be with important others when expecting exposure to stress provoking stimuli can enhance one's ability to regulate in the face of stressors. With reference to Gross' process model (2015), it can be expected that different valuations about the usefulness of employing different interpersonal emotion regulation strategies may influence the course of emotion regulation at each stage of the process: for example, if someone views interpersonal processes as helpful during the emotion identification stage they may choose to be in the presence of others; during the selection stage, they may seek guidance from others on appropriate strategies for the situation; during the implementation stage, if they lack confidence or experience implementing the suggested emotion regulation strategy they may seek the support of another to apply the strategy; and finally, when monitoring success, they may be more likely to reflect with others and plan what to do next if regulation has not been successful. While some literature on emotion regulation in mental health disorders has begun

to examine how interpersonal processes map onto the initial process model (Christensen & Haynos, 2020; Marroquín, 2011), no studies to the researcher's knowledge have applied contemporary conceptualisations of interpersonal emotion regulation to the extended process model (Gross, 2015).

While not theoretically underpinned by the process model, Hofmann's theorising (2014) about how interpersonal emotion regulation processes may operate within anxiety offers an interesting perspective. He suggested that the use of interpersonal emotion regulation strategies may enhance anxiety regulation to the degree that others help to alleviate emotional distress, however with a risk of maintaining anxiety symptoms in cases where the individual relies solely on others to regulate. Recent quantitative studies have suggested differences in interpersonal emotion regulation between adults reporting high levels of anxiety and psychologically healthy adults (Altan-Atalay & Ray, 2019). Altan-Atalay and Saritas-Atalar (2022) who expanded on the aforementioned study further found that adults experiencing high levels of anxiety often lacked the necessary skills to succeed in regulating anxiety, in which cases utilising interpersonal emotion regulation strategies was a protective factor. In another study by Aldao and Dixon-Gordon (2014), adolescents who employed interpersonal emotion regulation strategies were less likely to experience negative mental health. In a correlational (Niven et al., 2012) and in an experimental study with adults (Cheung et al., 2015), having access to a range of relationships which could support emotion regulation was found to encourage the use of intrinsic interpersonal emotion regulation strategies, and in turn, the greater and more varied the strategies utilised, the more likely it was that the individual experienced emotional well-being.

## The Development of Emotion Regulation in Childhood

It therefore seems logical to assume that being in an environment where opportunities for interpersonal emotion regulation are limited may undermine emotion regulation, and therefore worsen anxiety. Social isolation has been long linked to negative emotions (Coan, 2010) and mental health difficulties (Loades et al., 2020; Orben et al., 2020), and one

mechanism through which this relationship can be explained may be interpersonal emotion regulation (Hofmann, 2014). From a developmental perspective, what enables relational support, attachment, and effective interpersonal emotion regulation in early years has been given considerate attention from how a mother responds to the baby's needs and inner states (Bowlby, 1988; Higgins & Pittman, 2008) to the caregiver's recognition of the young child's emotions (Eisenberg et al., 2010). Little is, however, known for such processes in adolescence when the individual is expected to grow in autonomy and independence. Adolescence is a time when changes in social support networks take place (Furman & Rose, 2015), therefore a time when interpersonal emotion regulation strategies may be operationalised differently. Research examining extrinsic interpersonal emotion regulation has begun to demonstrate important differences in how younger and older children and young people engage in such processes, with adolescents utilising a wider range of interpersonal emotion regulation strategies which are usually 'healthier' and more advanced (Gummerum & López-Pérez, 2020; López-Pérez & Pacella, 2021; Pacella & López-Pérez, 2018). While research examining intrinsic interpersonal emotion regulation in adolescents is sparse, findings from an experimental study, where adolescents' emotion regulation choices were observed while interacting with their mothers, are worth mentioning; adolescents whose mothers did not recognise and validate their positive emotions were noted to rely on 'healthy' interpersonal emotion regulation strategies less frequently (Yap et al., 2008). Research in this area is however too limited to be able to draw conclusions about the aspects of the interpersonal context in which adolescents' emotions are regulated.

# 2.3 Unique contributions of the Present Study

The aim of the present study is to examine the relation between emotion controllability beliefs, emotion regulation, and adolescent anxiety. Based on the extended process model of emotion regulation (Ford & Gross, 2018), and expanding on previous research that has found that emotion regulation use can explain the relationship between emotion controllability beliefs and mental health (De Castella et al., 2013; Tamir et al., 2007), it is proposed that emotion

regulation is likely to mediate the relationship between emotion controllability beliefs and adolescent anxiety.

Research demonstrates that a number of anxiety triggers may be present in the classroom and school context during the developmental stage of adolescence (Anniko et al., 2019; Bagana et al., 2011; Cavanaugh & Buehler, 2015; Huberty, 2010): an increase in responsibilities and tasks, different grading systems and higher standards of academic work compared to their primary school experiences, and expectations from teachers and parents for students to navigate school work and learning more independently (Blackwell et al., 2007; Hampel et al., 2008; Larson et al., 2002; Roeser et al., 2000a); tests and assessments, especially ones which have the potential to determine important future outcomes for students such as entering college (Jindal-Snape & Miller, 2008; Sena et al., 2007); competitive school and classroom climates, classroom and testing contexts which do not encourage student focus and motivation (e.g., noisy classrooms or poorly constructed tests), and insufficient and/or ineffective teaching instruction (Cassady, 2010; Howard, 2020; Kouzma & Kennedy, 2004; Putwain & Daniels, 2010; Salend, 2011); and social aspects of the school environment, such as navigating romantic relationships, being accepted by peers and 'fitting in', which during this stage of life tend to be closely linked to the formation of one's self-identity (Anniko et al., 2019; Hamilton et al., 2015). While a level of anxiety may be a normative response to the numerous triggers encountered in school, the experience and manifestation of anxiety should not be undermined (Huberty, 2010). Anxiety can involve cognitive components, with the individual often experiencing repetitive thoughts associated with "possible threatening outcomes and their potential consequences" (e.g., I don't know anything and I will fail the test) (Huberty, 2010, p. 530). At the same time, experiencing anxiety has been linked to an activation of the autonomic nervous system (e.g., increased heart rate, activation of sweat glands etc.), also encountered in situations threatening to one's safety where the body gets ready to fight or flight (Alkozei et al., 2015; Beesdo et al., 2009b; Huberty, 2010). Finally, the behavioural manifestations of anxiety may include withdrawal or avoidance of the anxiety

provoking situation (e.g., appearing overly quiet or even leaving the classroom), or fight responses if the child or young person is finding it particularly hard to regulate anxiety (Hanie & Stanard, 2009; Huberty, 2010).

# The psychological process linking emotion controllability beliefs, emotion regulation, and anxiety

According to the process model of emotion regulation (Gross, 1998a, 2015), one factor which can affect the experience and regulation of emotion (e.g., anxiety) appears to be students' beliefs about whether they can control their emotions. The process model posits that emotion generation constitutes a cyclical process which evolves over a period of time: an emotionally triggering event occurs (e.g., the class teacher announces a surprise test to the class) and the individual evaluates this in relation to their desired state of the world (e.g., wanting to perform well but not having revised for the lesson); in an attempt to address the difference between their desired state of the world and their perception of it, an evaluative emotional reaction is generated (e.g., anxiety). During the 'identification stage', where the decision whether the perceived emotion (anxiety) requires regulation is made, holding beliefs that emotions are somewhat not controllable is thought to negatively affect the individual's motivation to attempt to regulate. If the individual moves on to the stage of selecting an available strategy, believing that emotions are relatively uncontrollable is likely to negatively impact the number of strategies considered as well as the effectiveness and quality of the selected strategy. Specifically, believing that emotions cannot be controlled is thought to encourage the selection and implementation of 'unhealthy' (over 'healthy') emotion regulation strategies which should lead to more negative emotional and psychological health-related outcomes over time. As the cognitive demand made by different regulation strategies can vary widely, Gross (2015) posits that individuals face different levels of cognitive load depending on the selected strategy, with potentially different, negative or positive, cumulative effects. Therefore, a student who does not believe that they can control their anxiety but who due to the multiple triggers of anxiety present in the secondary school context may often experience

anxiety in the classroom, is more likely to use ineffective or maladaptive strategies to regulate their anxiety, and struggle to regulate anxiety, therefore over time being more likely to experience negative emotional and mental health outcomes.

On the basis of the process model (Gross, 1998b), it is predicted that emotion controllability beliefs will only be linked to certain emotion regulation strategies: adolescents who believe that their emotions are controllable, will be more likely to employ strategies that regulate emotion as it is generating, such as reappraisal; instead, an association between emotion controllability beliefs and strategies aimed at altering the expression of emotion after emotion has fully unfolded, such as suppression, is not expected to be found.

Studies that have examined emotion controllability beliefs in adolescence have mainly focused on how these relate to depressive symptoms (e.g., in Ford et al., 2018; Romero et al., 2014). Anxiety, conceptualised as a diagnosable disorder, has been assessed in relation to emotion controllability beliefs and emotion regulation in limited studies with adults (e.g., De Castella et al., 2014, 2015; Schroder et al., 2015). Anxiety symptoms that do not meet the threshold for a diagnosis can still cause significant difficulties to adolescents' everyday life, and can lead to more severe difficulties later on, if preventative support is not put in place (Comer et al., 2012; Compas et al., 2017; Mian et al., 2011). The present study aims to address this gap and build on the studies with adult samples, by assessing general anxiety in adolescents and how it relates to personal emotion controllability beliefs and the use of emotion regulation strategies.

Another important gap in the emotion controllability beliefs literature addressed in the present study has to do with the materials used to assess such beliefs. Of the few studies examining emotion controllability beliefs in adolescents, most have assessed these using the *general* emotion controllability beliefs scale (as in Ford et al., 2018; Romero et al., 2014; Smith et al., 2018). Previous research, however, indicates that the *personal* emotion controllability beliefs scale accounts for the unique variance on the measures of psychological health outcomes more consistently (De Castella et al., 2013). The present study is the first known

study examining emotion controllability beliefs in adolescents using the first-person measure of personal emotion controllability beliefs.

According to the extended process model (Ford & Gross, 2018), emotion controllability beliefs can exert control on each stage of the regulation process. Literature has mainly focused on the ways in which emotion controllability beliefs affect the selection stage of the emotion regulation process, and little attention has been paid to the other stages. A few experimental studies have started to show that contextual factors can influence emotion regulation strategy choice (see Sheppes et al., 2011; Troy et al., 2013). In order to address the above as well as the relatively limited literature on the use of other families of emotion regulation strategies apart from reappraisal and suppression, the present study aims to explore *how* adolescents with differing emotion controllability beliefs perceive the generation and regulation of their emotions, and *why* certain regulatory strategies are preferred over others.

An important aspect of the environment which has been largely overlooked in emotion regulation research and contemporary emotion regulation theoretical frameworks, including Gross' process model, is the presence of others. Intra- and inter-personal processes of emotion regulation can be thought to exist on a continuum, and therefore there is value in studying these concepts together. While research has focused on developmental aspects of interpersonal emotion regulation with particular reference to early childhood, and some concepts linked to interpersonal emotion regulation such as emotional support from a parent or help-seeking behaviours in adolescence (Yap et al., 2008; Young Minds, 2021), research investigating which interpersonal aspects of the social context enable such processes in adolescence has been particularly limited. Understanding of interpersonal emotion regulation as an umbrella construct which encompasses a wide range of interpersonal emotion regulation processes occurring within live social interactions continues to be limited for adolescents, especially at a time when interpersonal emotion regulation processes may have needed to be adjusted following physical distancing and social isolation measures for managing the COVID-19 pandemic in England. The present study aims to broaden understanding of the

interpersonal processes that adolescents perceive as helpful/less helpful in the generation and regulation of anxiety.

To date, for the study of emotion controllability beliefs in adolescents research has relied on quantitative data (cross-sectional, longitudinal or randomised control trial designs). The present study will adopt a mixed-methods design, using quantitative data to examine relationships between the main variables (emotion controllability beliefs, emotion regulation, anxiety), and qualitative data to allow for a more in-depth exploration of inter- and intrapersonal emotion regulation processes.

## 2.4 Research Questions

#### Rationale

**Research Question 1:** Do adolescents who believe that they have a lot of control over their emotions use different emotion regulation strategies from adolescents who believe that they have little control over their emotions?

Gross' process model (1998b, 2015) posits that beliefs that emotions can be somewhat controlled are only linked to certain emotion regulation strategies. In particular, Gross (1998b, 2015) suggests that individuals holding beliefs that they can alter their emotions often rely on strategies aimed at the experience of emotion (such as reappraisal), whereas strategies employed after emotion has fully unfolded (such as suppression), which can only alter its expression, are not as appealing to them. On the other hand, individuals holding beliefs that emotions are not possible to control are expected to be less motivated to engage in emotion regulation altogether (Gross, 1998b). A small body of research has begun to demonstrate that individuals who believe that their emotions are controllable are more likely to employ strategies that regulate emotion as it is generating, such as reappraisal (De Castella et al., 2013; Ford et al., 2018; Goodman et al., 2020; Kneeland et al., 2016; Schroder et al., 2015b; Tamir et al., 2007). Also in line with Gross' process model, two cross-sectional and longitudinal studies

have demonstrated that emotion controllability beliefs are not linked to suppression (Ford et al., 2018; Tamir et al., 2007).

Theoretically, the selection and operationalisation of different emotion regulation strategies should lead to different emotional outcomes. As the cognitive demand made by different regulation strategies varies widely, individuals face different levels of cognitive load depending on the selected strategy, with potentially different cumulative effects (Gross, 1998b, 2015). Specifically, Gross suggests that strategies employed before the response, are more adaptive as they can impact the whole regulation process by changing both the expression and experience of emotion; strategies employed during or after the response (see Figure 1), are less adaptive as they occur much later in the process, once the emotion has already unfolded. Indeed, in a recent meta-analysis of 35 studies with adolescents 13-18 years old, students with anxiety symptoms were more likely to use maladaptive regulatory strategies such as suppression and avoidance, and less likely to use adaptive strategies such as reappraisal and problem-solving (Schäfer et al., 2017). In another meta-analytic and narrative review of 212 studies by Compas et al. (2017), the use of maladaptive regulatory strategies, and suppression specifically, was associated with clinical forms of mental health difficulties, whereas the use of adaptive regulatory strategies was linked to below-threshold mental health difficulties in children and young people.

Given the clear links between emotion regulation and mental health, and the sparse research examining the impact of emotion controllability beliefs on emotion regulation strategy choices, there is value in research further examining the degree to which differing beliefs about emotion controllability beliefs may relate to different emotion regulation strategies. These processes will be particularly important to be examined in adolescence, especially given the historical context, the current societal climate of COVID-19, and the developmental challenges and opportunities encountered during this stage of life, as outlined in the introduction of the present thesis.

**Research Question 2:** Does emotion regulation mediate the relationship between emotion controllability beliefs and anxiety?

As discussed above, Gross (1998b, 2015) suggests that emotion controllability beliefs can impact one's emotion regulation strategies choices. In turn, the use of different emotion regulation strategies is thought to lead to different emotional experiences and outcomes which can over time have a positive or negative cumulative effect. Building on Gross' process model, a small body of longitudinal, cross-sectional and laboratory studies has begun to demonstrate links between emotion controllability beliefs and mental health which seem to be explained through the use of different emotion regulation strategies (De Castella et al., 2013, 2014, 2015, 2018; Kappes & Schikowski, 2013; Romero et al., 2014; Schroder et al., 2015a, 2016; Tamir et al., 2007). The majority of these studies have focused on adult populations with only a few studies examining these in adolescence and youth (Romero et al., 2014; Tamir et al., 2007). In addition, studies that have examined the role of emotion regulation in explaining the links between emotion controllability beliefs and adolescent mental health have mainly focused on depressive symptoms (Ford et al., 2018; Romero et al., 2014) rather than a wider spectrum of mental health needs. Anxiety, conceptualised as a diagnosable disorder, has been assessed in relation to emotion controllability beliefs and emotion regulation in limited studies with adults (e.g., De Castella et al., 2014, 2015; Schroder et al., 2015). Anxiety symptoms that do not meet the threshold for a diagnosis can still cause significant difficulties to adolescents' everyday life, and can lead to more severe difficulties later on, if preventative support is not put in place (Comer et al., 2012; Compas et al., 2017; Mian et al., 2011). The present study aims to address this gap and build on the studies with adult samples, by assessing general anxiety in adolescents and how it relates to emotional controllability beliefs and the use of emotion regulation strategies. Based on the process model of emotion regulation (Gross, 1998b, 2015) and expanding on previous research that has found that emotion regulation can explain the relationship between emotion controllability beliefs and mental health (De Castella

et al., 2013; Tamir et al., 2007), it is proposed that emotion regulation is likely to mediate the relationship between emotion controllability beliefs and adolescent anxiety.

**Research Question 3:** How do adolescents perceive the generation and regulation of anxiety?

According to the extended process model (Ford & Gross, 2018; Gross, 2015), emotion controllability beliefs can exert control on each stage of the regulation process. Literature has mainly focused on the ways in which emotion controllability beliefs affect the strategy selection stage of the emotion regulation process, and little attention has been paid to other emotion regulation stages. According to Ford and Gross (2018) "[...] literature has led to a rich understanding of the correlates [...] of specific regulation strategies, but it has rarely parsed the different phases of regulation (identification, selection, implementation, monitoring). Differentiating among these phases will require novel approaches" (p.33). Questions such as when, how and why one realises that they need to regulate, why certain strategies are selected over others, how the individual goes about 'operationalising' each strategy, how can different strategies be used at the same time, or how these can be effectively sequenced, are some of the many questions around the emotion regulation and emotion controllability beliefs that remain unanswered (Gross, 2015). In order to address this gap and gain a more in depth understanding of the emotion regulation process as a whole, the present study aims to explore how adolescents perceive the generation and regulation of anxiety by directly gathering adolescent views and experiences of emotion regulation in the classroom context.

**Research Question 4:** What reasons do adolescents give for using certain emotion regulation strategies more frequently than others?

While in the recent revision of his model Gross (2015) has theorised about the impact of emotion beliefs on the selection of emotion regulation strategies, little attention has been paid to other factors which may influence an individuals' choice of emotion regulation strategies. A few experimental studies have started to show that contextual factors can

influence emotion regulation strategy selection (see Sheppes et al., 2011; Troy et al., 2013), however these initial findings need to be interpreted with caution as they cannot be generalised to natural environments. Other studies which have provided evidence for the link between emotion controllability beliefs and specific regulation strategies have mainly adopted cross-sectional and longitudinal designs (De Castella et al., 2013; Ford et al., 2018; Tamir et al., 2007) utilising questionnaire data focused on the type of strategy selected, paying little attention to the specific circumstances under which a given strategy is preferred, how it is selected, or why. In order to address the above as well as the relatively limited literature on the use of other families of emotion regulation strategies apart from reappraisal and suppression, the present study aimed to explore why adolescents prefer certain regulatory strategies over others by directly seeking their voices and views about the 'why' of emotion regulation strategy selection process.

**Research Question 5**: Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety?

Emotion regulation research and contemporary emotion regulation theoretical frameworks, including Gross' process model, have almost exclusively focused on intrapersonal emotion regulation processes. Zaki and Williams (2013) argue that (intrapersonal) regulatory strategies exists on the same continuum as interpersonal regulation, and effective emotion regulation is intimately tied with interpersonal regulatory processes; for example, choosing to be with important others when expecting exposure to stress provoking stimuli can enhance one's ability to regulate in the face of stressors. Contemporary frameworks of interpersonal emotion regulation suggest that interpersonal processes encompass sharing one's experience of emotion with others 'in the context of live social interactions' with an aim to increase emotion regulation success (Dixon-Gordon et al., 2015; Hofmann, 2014; Niven et al., 2009; Williams et al., 2018; Zaki & Williams, 2013). A large body of research has demonstrated that having access to supportive others is associated with more effective emotion regulation, emotional wellbeing and mental health (Harandi et al., 2017; Liu

et al., 2021; Thompson et al., 2019; Weilenmann et al., 2018), whereas social isolation has been long linked to negative emotions (Coan, 2010) and mental health difficulties (Loades et al., 2020; Orben et al., 2020).

From a developmental perspective, what enables relational support, attachment, and effective interpersonal emotion regulation in early years has been given considerate attention from how a mother responds to the baby's needs and inner states (Bowlby, 1988; Higgins & Pittman, 2008) to the caregiver's recognition of the young child's emotions (Eisenberg et al., 2010). Little is, however, known for such processes in adolescence when the individual is expected to grow in autonomy and independence. Adolescence is a time when changes in social support networks take place (Furman & Rose, 2015), therefore a time when interpersonal emotion regulation strategies may be operationalised differently. Findings from an experimental study, where adolescents' emotion regulation choices were observed while interacting with their mothers, showed that adolescents whose mothers did not recognise and validate their positive emotions were noted to rely on interpersonal regulatory support less frequently (Yap et al., 2008). Research in this area is, however, too limited to be able to draw conclusions about the aspects of the interpersonal context in which adolescents' emotions are regulated.

With reference to Gross' process model (2015), it can be expected that different valuations about the usefulness of employing interpersonal regulatory support may influence the course of emotion regulation at each stage of the process: for example, if someone views interpersonal processes as helpful during the emotion identification stage they may choose to be in the presence of others; during the selection stage, they may seek guidance from others on appropriate strategies for the situation; during the implementation stage, if they lack confidence or experience implementing the suggested emotion regulation strategy they may seek the support of another to apply the strategy; and finally, when monitoring success, they may be more likely to reflect with others and plan what to do next if regulation has not been successful. While some literature on emotion regulation in mental health disorders has begun

to examine how interpersonal processes map onto the initial process model (Christensen & Haynos, 2020; Marroquín, 2011), no studies to the researcher's knowledge have applied contemporary conceptualisations of interpersonal emotion regulation to the extended process model (Gross, 2015).

At a time when interpersonal regulatory processes may have needed to be adjusted following physical distancing and social isolation measures for managing the COVID-19 pandemic in England and when adolescents' mental health may have been compromised (Young Minds, 2021), it seems particularly important to understand what interpersonal aspects of the social context enable such processes. The present study aims to broaden understanding of the interpersonal processes that adolescents perceive as helpful/less helpful in the generation and regulation of anxiety.

Table 1

Research questions of the present study.

Research Questions							
Overarching Research Question: What is the relationship between emotion controllability beliefs, emotion regulation and adolescent anxiety in the classroom and in the context of social interactions?							
Quantitative	1.	Do adolescents who believe that they have a lot of control over their emotions use different emotion regulation strategies from adolescents who believe that they have little control over their emotions?					
	2.	Does emotion regulation mediate the relationship between emotion controllability beliefs and anxiety?					
Qualitative	3.	How do adolescents perceive the generation and regulation of anxiety?					
	4.	What reasons do adolescents give for using certain emotion regulation strategies more frequently than others?					
	5.	Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety?					

# 3. Methodology

This chapter will outline the epistemological position and design of the present study. It will also address the sampling strategy and procedure followed, and the measures and analyses used. Finally, considerations regarding research integrity, ethics and professional practices relating to this project will be presented.

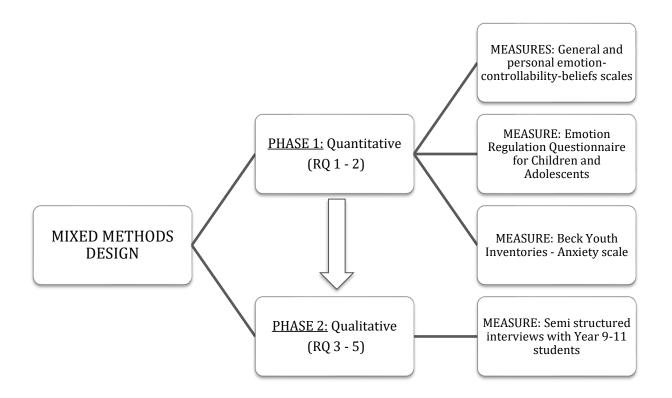
# 3.1 Epistemological Position and Design

The present research employed a contextualist paradigm. According to Shannon-Baker (2016), research paradigms "are not static, unchanging entities that restrict [...] the research process. Instead, paradigms can help frame one's approach to a research problem and offer suggestions for how to address it given certain beliefs about the world" (p. 319). Paradigms, as sets of 'beliefs and practices', are therefore expected to be inextricably linked to both the conceptualisation and operationalisation of research questions (Morgan, 2007, p. 49). Contextualism, as a research paradigm, posits that 'truth' is reliant on the context and the experience of the individual. A single truth is thus non-existent and each individual's understanding and insight regarding life phenomena is equally valued (Braun & Clarke, 2013; Robson & McCartan, 2016). Contextualism "is capable of reflecting in sociology of knowledge terms and of discussing various kinds of contextualization", while empirically it considers and places value on both qualitative and quantitative research approaches (Mjøset, 2009, p. 33). The contextualist position is, therefore, consistent with the theoretical model underpinning the study (Gross, 1998b, 2015), as this places value on one's evaluations of the world (e.g., evaluation of emotional stimuli, one's beliefs about whether emotions can be controlled etc.) for the progression through the different emotion regulation stages. The present study also acknowledges the importance of the social environment and how this can interact with the individual to shape emotion regulation which also fits with the contextualist stance which implies that 'truth' depends on the context, and therefore different contexts may mean different experiences of truth for different individuals.

The present study aimed to examine the relationship between emotion controllability beliefs, emotion regulation and anxiety in Year 9, 10 and 11 students in secondary schools in England. Underpinned by Gross' process model (1998b, 2015), it aimed to further explore how students perceive the generation and regulation of anxiety, what reasons they give for using certain regulatory strategies more frequently than others, and what aspects of the interpersonal context adolescents perceive as helpful/hindering in the generation and regulation of anxiety. Quantitative measures were used to examine the relationships between emotion controllability beliefs, emotion regulation, and adolescent anxiety, while semistructured interviews with students holding differing emotion controllability beliefs and experiencing different levels of anxiety were conducted to gain more insight into intra- and inter-personal emotion regulation processes (see Figure 3). This way the data collected were not only triangulated, but they were also more meaningful. Indeed, combining quantitative and qualitative data was thought to serve in-depth analyses of complex phenomena that could not be sufficiently examined and understood if a single approach was to be used (Creswell & Plano Clark, 2011; Shannon-Baker, 2016). Understanding the relationship between emotion controllability beliefs, emotion regulation and anxiety, the 'how' and 'why' of the emotion regulation process, as well as helpful/less helpful interpersonal aspects of emotion regulation is hoped to inform support for adolescent anxiety in the future. In line with the contextualist stance of the study, by using a mixed-methods approach it is acknowledged that the adolescents' 'reality' is not one-dimensional, but rather occurs within different contexts, and so multiple, and creative methods are required to sufficiently capture it.

# Figure 3

The two-phase, sequential, mixed-methods study design.



The design of the present study was explanatory and sequential utilising a two-phase structure. In the first phase, quantitative data about emotion controllability beliefs, emotion regulation strategies and adolescent anxiety were collected and analysed. In the second phase, to ensure representation of a wide range of insights, a mix of students scoring low/high on emotion controllability beliefs and anxiety measures was employed to provide insight into the specific processes ('how' and 'why') of emotion regulation and the helpful/hindering interpersonal aspects of the context in which adolescent anxiety is generated and regulated.

# 3.2 Sampling Strategy

In the quantitative phase of the study, the main criteria for inclusion were for the students to be attending Year 9, 10 or 11 in a mainstream secondary school in England. The initial plan involved obtaining an opportunistic sample from a patch of schools that the researcher was linked to as a Trainee EP (TEP) in a Local Authority (LA) of an outer London Borough. However, due to significant difficulties encountered with engagement from schools during the outbreak of the COVID-19 pandemic, the researcher had to change plan and

approach a much larger number of schools through various different channels (see Procedure below).

To determine the sample size required, a power analysis was conducted using G\*Power 3 (Faul et al., 2007), and a target sample of 100 students was identified (estimating medium effect sizes based on findings from similar emotion controllability beliefs research discussed in the literature review above). With regards to the qualitative sample, this was a smaller subset of the quantitative sample obtained in Phase 1. Following initial analyses of the quantitative data, maximum variation sampling was used based on participants' scores on emotion controllability beliefs and anxiety measures. Therefore, a mix of participants who scored high/low on the emotion controllability beliefs measures and on the anxiety questionnaire were selected. The initial plan included completing interviews with: two participants scoring low on emotion controllability beliefs measures and high on anxiety measures; two participants scoring high on emotion controllability beliefs and low on anxiety; and two participants who scored low on emotion controllability beliefs and low on anxiety measures (eight interviews in total). Due to recruitment difficulties encountered, changes to the original plan had to be made (detailed in 'Participants' section below).

## 3.3 Participants

Out of the 2,500 mainstream secondary schools contacted, 67 schools responded with 10 of those agreeing to participate and advertise the study to their students (following parental consent forms completion). A total of 81 responses to the questionnaire (25=male, 54=female, one=other, one=prefer to not say) were recorded. Due to relevant requirements selected within Qualtrics when setting up the online survey all responses were fully completed. Considering that the study was advertised for over five months to a particularly large number of schools, the overall response rate is considered low; recruitment difficulties encountered were likely linked to low staffing levels, concerns about placing further demands on students at a time when uncertainty around exams was high, varying demands placed upon schools during the

pandemic, and especially during the lockdown period, for a large part of which the advertising of the present study took place. In fact, a number of schools cited such factors as preventing them from participating at the time, and indicated their interest in being considered for future research projects. Figure 4 demonstrates approximately where various adolescent participants of the study were located.

Figure 4

Questionnaire respondents' approximate location across England.



Within Phase Two of the study, a total of 10 interviews were conducted, with participants who had previously completed the online questionnaire and fulfilled the criteria specified in the sampling strategy. While the initial plan involved carrying out eight interviews, difficulties recruiting participants with low levels of anxiety meant that students with high levels of anxiety

would have been overrepresented, if the interview sample had not been expanded. Furthermore, two of the interviews conducted were briefer in nature, and so it was felt appropriate to gather more interview data until saturation was achieved (Saunders et al., 2018). Therefore, when towards the end of the interview data collection phase, two participants with low levels of anxiety became available in order to increase the representation of a wide range of participant characteristics and uphold the participants' intention to participate in interviews, it was decided to offer them interviews (see Table 2 for details of the characteristics of interviewees).

Table 2

Characteristics of interviewees

# **Scales and Scores**

	Year Group	Sex	(General and Personal) Emotion Controllability Beliefs	Anxiety Symptoms
Participant 1	Year 11	Female	Low	High
Participant 2	Year 10	Male	Low	High
Participant 3	Year 11	Female	Low	High
Participant 4	Year 11	Female	Low	High
Participant 5	Year 10	Prefer not to say	Low	Low
Participant 6	Year 11	Male	Low in Questionnaires, but High during Interview	Low
Participant 7	Year 10	Female	High	High
Participant 8	Year 11	Female	High	High
Participant 9	Year 9	Male	High	Low
Participant 10	Year 10	Male	High	Low

## 3.4 Procedures

Participants were recruited through school Special Educational Needs Co-ordinators (SENCOs) and headteachers. The SENCOs and school headteachers were initially contacted via e-mail by the researcher or the school's link EP where this person was known to the researcher, as appropriate. Utilising a government database, details of all secondary schools in England were obtained, and 2,500 mainstream secondary schools were contacted. Incentives offered included a staff/parent/young people leaflet or a pre-recorded short webinar with the findings of the study and ways to promote adolescent mental health following completion of the project. Apart from direct contact with schools, the researcher also advertised the study through various EPS' social media (Twitter) accounts and on the EPNET, an online mailing list platform for the English EP community.

Schools were provided with an informational letter about the study via e-mail and once they indicated their interest, information sheets and online consent forms were distributed to parents and students. These forms contained the researcher's contact details in case parents or students wished to discuss matters related to the study further. The consent forms covered both phases of the study: filling in online questionnaires and participating in a follow-up interview via telephone or instant messenger. Once written consent was received, participants were e-mailed a link to the questionnaire to complete in their own time, as administration in classrooms was not possible due to the data collection phase of the present study taking place during the national lockdown period. The questionnaire was not anonymous in that the participants' name and e-mail address were requested in order for the researcher to be able to contact students for interviews later on, if they fitted the specified interview criteria. The online questionnaire was constructed on the UCL Qualtrics platform to ensure certain validation rules were applied (e.g., responding to all questions before proceeding to the next section, letting students know how much there was left to complete with a bar at the bottom of the page, providing the option to save answers and return to the form later if needed). The remote data collection methods employed meant that participants needed to have access to a computer and internet as well as feel confident in using technology in order to complete the

questionnaires (Grootswagers, 2020; Shields et al., 2021). To ensure no one was limited in their responses or excluded from research due to methodological factors, provisional arrangements in relation to ensuring access to a computer in school, if needed, were made, and SENCOs and parents were alerted to directly contact the researcher if they felt participants would require access to differentiated materials. The remote nature of the study meant that it was not entirely possible to monitor participants' attention, motivation, engagement, or control for the effects of social desirability bias (Rhodes et al., 2020) (also see section 'Limitations of This Research').

Once quantitative data collection was completed, questionnaire data were analysed in order to identify low and high scoring participants for the measures of emotion controllability beliefs and anxiety. Specific cut off points were used to identify a mix of participants scoring low (mean score ≤ 2.5 [out of 5]) and high (mean scores ranging between 3.5 and 5) on the emotion controllability beliefs measures, and scoring low (mean score ≤ 2 [out of 4]) and high (mean scores ranging between 3 and 4) on the anxiety measure. Due to the COVID-19 outbreak and England being in a national lockdown at the time of data collection, interviews had to be conducted remotely, while participants were in their homes. Interviewees were contacted via e-mail (which they had provided when completing questionnaires). To uphold the participants' rights to privacy, promote response honesty and comfort, prior to interviews it was checked whether participants could have access to a private space and if this was not possible, the option of accessing a quiet space in school was offered, however no interviewee took up that option. Interviews ranged from 20 minutes to one hour and relevant adjustments had to be made (e.g., reminding participants of breaks, checking energy levels etc. as specified in section 3.9 'Ethical and Professional Practice Considerations') and were arranged at a time convenient for participants. Interviews took place over a period of two months.

Prior to conducting interviews with the selected participants, it was checked with both parents and the participants themselves whether they were still willing to participate. Following agreement, a choice between telephone and instant-messenger interviews was given.

Offering children and young people choices can help them to feel more in control and, therefore, safer within day-to-day activities (Grossman, 2007). In acknowledgement of the difficulties with rapport building during telephone and instant-messenger interviewing, the researcher shared a one-page-profile of themselves in advance and spent time at the beginning of the interview on an ice-breaker activity (see Appendix D for full interview schedule). According to Willig (2013), it constitutes good practice to begin an interview with low-threat questions requiring simple answers so that the participant has the opportunity to feel comfortable with the interview process before questions about more complex topics are introduced. At the end of the interviews, the researcher completed an emotion check-in with the participants, and went through a debriefing form, which included information about all emotions being a normal part of life, and signposted to support for when emotions may feel unmanageable (see Appendix B). All data were stored securely in a password-protected file of a secure laptop, with no references to the identity of the participants.

While the researcher's initial plan also involved the collection of contextual information about the participating schools by circulating a relevant form to SENCOs and headteachers, identifying recent Ofsted reports, and utilising knowledge of EPs linked to schools, significant difficulties hearing back from schools following data collection were encountered. Due to expanding data collection across schools in the whole of England, the researcher did not have any EP contacts who could alternatively provide contextual background information for those schools, and while Ofsted report were examined, they were not felt to provide sufficient information. Therefore, it was unfortunately decided as best to not rely on such information.

**Data protection.** All data was anonymised and kept securely under the data protection measures outlined in the ethics application. The transcripts from the telephone interviews did not contain any identifiable information about the participants. Each participant was given a number and the audio recordings were permanently deleted once the interviews were transcribed and the identifying file was kept in a separate, password protected file location from the transcribed interviews. The instant messenger account created for the interviews was

deleted after all interviews were completed and extracted to a password protected Word document. Similarly to the telephone interviews, any identifying information (such as name, school, borough etc.) mentioned in the interviews was removed from the extracted text making all the data anonymous. Any identifying contact information about participants was stored in a password-protected file location, separate from the extracted WhatsApp interviews. While WhatsApp, the software used for instant-messenger interviews, is known to have one of the highest levels of security for data with "end-to-end encryption", it was acknowledged that with third-party software there is a risk of intrusion (i.e., hacking); students were encouraged to find out how WhatsApp stores their data and check the WhatsApp privacy notice. Participants were expected to be familiar with communication through the instant-messenger functions associated with social networks (e.g., Facebook), and so more likely to easily adapt to WhatsApp given its similarity with other instant-messenger options (Sutikno et al., 2016). For participants not accustomed with this tool, information about how to download and use it was ready to be provided. WhatsApp compared to other instant-messenger platforms benefits from offering more privacy in that it does not require a connection to participants' main social media accounts (e.g., Facebook/Instagram) (also refer to 'Confidentiality, Anonymity and Inclusivity of Research' in section 3.9 below and to UCL Ethics Application Form with a data protection registration number Z6364106/2020/11/16).

### 3.5 Data Collection Methods

#### 3.5.1 Phase One

The questionnaire contained 38 items in total relating to the different variables of the study (emotion controllability beliefs, emotion regulation strategy use, and anxiety). It also collected data in relation to the participants' gender, age, and Year group, as well as their name and e-mail address.

**Emotion controllability beliefs.** Consistently with previous research, in order to assess the students' *general* beliefs about emotion controllability the four-item Implicit Beliefs

about Emotion Scale was used (Tamir et al., 2007). The scale includes two items measuring beliefs that emotions can be controlled (e.g., 'Everyone can learn to control their emotions') and two items measuring beliefs that emotions are non-controllable (e.g., 'No matter how hard they try, people can't really change the emotions that they have'). Responses are rated on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

For the assessment of *personal* beliefs about the controllability of emotions, a measure adapted from the original general emotion controllability beliefs scale was used (De Castella et al., 2013). All items are phrased in the first person to reflect one's *own* beliefs. Similarly, to the general beliefs scale, two items measure beliefs about the malleability of emotions (e.g., 'If I want to, I can change the emotions that I have'), and the other two measure beliefs about emotion non-controllability (e.g., 'No matter how hard I try, I can't really change the emotions that I have'). Agreement is rated on a 5-point scale ranging from 'strongly disagree' to 'strongly agree'.

Both these scales have been found to have good internal consistency (general emotion controllability beliefs scale a=.75, Tamir et al., 2007) (personal emotion controllability beliefs scale a=.79, De Castella et al., 2013; Kappes & Schikowski, 2013), and also demonstrated good internal consistency within the present study (Cronbach's alpha values for all scales presented in Table 6 in the 'Findings' Chapter).

Emotion regulation strategy use. One of the most challenging tasks in the study of emotion regulation is its assessment. One of the most commonly used methodological approaches with adolescents are self-reports (Young et al., 2019). However, as with the different models of emotion regulation, the construct is conceptualised differently across different self-report measures creating significant inconsistencies in the content of assessments, and further confusion and inaccuracies, if and when findings across studies are compared or combined. For example, in Shields' and Cicchetti's Emotion Regulation Checklist (1998), both emotion regulation and emotional expression are measured. This becomes particularly problematic when measures of mental health difficulties are also included; as these

also draw upon emotional expression, there is a significant potential risk of 'assessment contamination' and overlap (Mirabile, 2010). Furthermore, different groupings of regulatory strategies are measured in different self-report questionnaires (e.g., see Gratz and Roemer's Difficulties in Emotion Regulation Scale [2004], and Garnefski and others' Cognitive Emotion Regulation Questionnaire [2001]). To avoid contributing to further variability, and therefore confusion in the assessment of emotion regulation strategy use, the most widely used self-report measure, as indicated in a recent analytic review by Young et al. (2019), the Emotion Regulation Questionnaire (ERQ), was used in the present study (Gross & John, 2003). This questionnaire is also developed in line with the process model of emotion regulation (Gross, 1998b), the conceptual framework underpinning this study.

The Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA), which has been evaluated by Gullone and Taffe (2012), measures the use of reappraisal and expressive suppression using developmentally appropriate language for children and young people aged 10 to 18 years. The scale includes 10 items that are rated from 1 (strongly disagree) to 7 (strongly agree). Four items measure the use of expressive suppression (e.g. 'I keep my emotions to myself'), and six items measure the use of reappraisal (e.g., 'When I want to feel less negative emotion, I change what I'm thinking about'). The ERQ-CA has been found to have high internal consistency (a=.79 for Reappraisal, a=.73 for Suppression) (Gross & John, 2003) and also demonstrated good internal consistency within the present study (details in Table 6 in 'Findings' chapter).

Anxiety. The evaluation of anxiety in children and young people is a complicated process in the sense that even though a wide variety of instruments exist, numerous factors need to be taken into consideration in order to select the most appropriate one (Fonseca & Perrin, 2000; Grant, 2013). With regards to self-report measures, factors relating to the specific needs of the children and young people and their general developmental differences need to be acknowledged (Beesdo et al., 2009). For instance, self-report measures of anxiety require a level of insight into one's affective states, and so less differentiation is likely to be required

for adolescents compared to younger children, who are still developing emotional awareness. Similarly, the mode of assessment needs to be adjusted to the cognition and language skills of the particular children and young people that it is aimed for (Beesdo et al., 2009). In particular for adolescents, familiarity is required with specific symptoms and presentations of anxiety which research indicates may be different during this developmental stage (Siegel & Dickstein, 2011). Adolescents are more likely to experience and report bodily symptoms such as stomach-aches, loss of appetite, or headaches as part of anxiety (Frick et al., 1999; Garland, 2001). Further, adolescent anxiety seems to manifest more at a behavioural i.e. avoidance of social situations or being 'oppositional' towards authority figures (Duchesne et al., 2008; Frick et al., 1999; Garland, 2001), rather than at a cognitive level, which is most commonly associated with anxiety in adulthood (Beesdo et al., 2009). This is particularly relevant during the assessment selection process, especially for self-report measures which may not have been specifically designed for adolescents, or may be aimed for a wide age range, and may, therefore, not include items about the specific manifestations of adolescent anxiety.

With regards to other informants' reports, findings about the recognition of internalising difficulties by parents and teachers are mixed (Achenbach et al., 1987; Ford et al., 2005; Mesman & Koot, 2000). Interestingly, most of the studies that have utilised children and young people's own anxiety reports have shown that they are the ones with most insight when it comes to their behaviours and feelings (Kösters et al., 2015). This is not surprising considering that anxiety symptoms are most of the time internal, and so information gained directly from adolescents about their experiences can prove invaluable (Fonseca & Perrin, 2000). In line with the above and acknowledging that anxiety is best examined 'in context' (Beesdo et al., 2009; Weems & Stickle, 2005), semi-structured interviews and standardised self-report measures of adolescent anxiety which include items addressing symptoms more noticeable in this age span were used.

Specifically, the Anxiety Inventory of the Beck Youth Inventories (BYI) was used (Steer et al., 2001, 2005). The Beck Anxiety Inventory for Youth (BAI-Y) contains 20 items (e.g., 'I worry when I am at school') rated on a 4-point scale ranging from 'never' to 'always'. The BAI-Y has been found to have good to excellent internal consistency ('a' ranging from 0.86 to 0.96) (Bose-Deakins & Floyd, 2004; Child Outcomes Research Consortium, 2017), which was also the case in the present study (see Table 6 in 'Findings' chapter). An overview of all questionnaire items is presented in Appendix F.

#### 3.5.2 Phase Two

The qualitative data collection process involved an introduction of the study including re-gaining verbal/written consent (depending on the interview mode: telephone versus instant-messenger) and going through a script about the specifics of the interview process, an ice-breaker activity, a vignette and questions relating the vignette to the participants' own experiences of regulating anxiety in a similar situation in school, some closed questions relating to specific emotion regulation strategies and progressing through the different stages of emotion regulation, and some open-ended questions in relation to aspects of the interpersonal emotion regulation context that participants perceive as helpful/less helpful in the generation and regulation of anxiety.

Semi-structured interviews constitute a particularly flexible tool for information gathering, as they allow in-depth exploration of meaning using the participants' own words (Kvale, 2006; Rubin & Rubin, 2012). The qualitative arm of the present study aimed to gain insight into adolescents' perceptions of the generation and regulation of anxiety, the reasons why they prefer certain regulatory strategies more than others, and helpful/hindering aspects of the interpersonal environment in which they regulate anxiety. Utilising semi-structured interviews to explore such a personal and intrinsic process as emotion regulation and interpersonal emotion regulation using the students' own language seems appropriate. Semi-structured interviews further gave the researcher the opportunity to triangulate information gained from quantitative measures such as the intensity of anxiety and emotion controllability

beliefs. Questions asked covered the use of a variety of emotion regulation strategies across all stages of the emotion regulation process (Gross, 2015), and in relation to the intra- and inter-personal context in which emotion regulation takes place.

The 'how' and 'why' of emotion regulation (RQ3 and 4): A short vignette designed to represent a personally relevant emotional event for adolescents was utilised in order to encourage them to reflect on the specific circumstances when they had employed emotion regulation. Providing individuals with a cue in relation to a specific and personally experienced event as opposed to asking them to recall abstract situations may help activate 'episodic memory' and support individuals to retrieve more detailed information about that event such as sensory elements and specific event-gained knowledge (Wheeler & Gabbert, 2017). According to Bloor and Wood (2006), "vignettes act as a stimulus to extend discussion of the scenario in question" (p.183). Through the use of vignettes, broader discussion can be facilitated and "the researcher can gain more detailed insight into participants' interpretative processes and the multi-faceted nature of their stock of knowledge" (Jenkins et al., 2010, p.3). In a review of the literature on the utilisation of emotion enhancing methods within research by Quigley et al. (2014), the use of images and films were found to have the highest effect sizes (ranging from .53 to .66 for films, and .58 to 1.03 for images) compared to all other techniques. While the present study was not of an experimental design, in recognition of the limitations of conducting remote 'unregulated' research with children and young people with regards to attention and motivation (Shields et al., 2021), utilising a moving image (gif) relating to the vignette in order to maximise the engagement of participants was felt to be fitting in the present context.

For the development of vignettes, the researcher reviewed and adapted the emotion regulation materials from Ford et al.'s (2018) daily-diaries pilot study and materials from 'Promoting Emotional Resilience: A Resource Pack' by West Sussex County Council and Sussex NHS Partnership. Furthermore, literature discussing main sources of worry and anxiety during this stage of development was reviewed to support the researcher in selecting

the most relevant emotional event for adolescents. Research demonstrates that concerns about performance and how adolescents are viewed by peers are some of the most common stressors faced at this stage of life (Beesdo et al., 2009; Pekrun, 2017). As this was also confirmed during the pilot study, the vignette utilised in the main study concerned an event capturing performance anxiety: John recently had to do a project for 'Technology and Design' and he worked very hard on it. He got a really good grade and his teacher keeps praising his performance. The headmaster has now asked John to do a short presentation about his project in front of the whole school. John is already feeling sick.

For the development of the gif displayed following the vignette, a movie scene depicting an adolescent about to give a music performance in a large assembly hall in front of his peers was used (for the gif see Interview Schedule in Appendix D). Questions capturing the 'how' and 'why' of anxiety regulation expanding on the vignette were open-ended ('What would your reaction to such an event be?', 'What can others do to help in a situation like this?', 'When you are feeling anxious, in what ways do you look for help from others to feel better?' [where the student had indicated that they look for interpersonal support to regulate]), with specific prompts when a range of emotion regulation strategies was needed to be captured ('You talked about doing this... when you are anxious. Other people may also try and think of the potential positive outcomes of the event. How likely is it that you would deal with your anxiety in this way? Why? How would you go about doing that?'), and closed where certain stages of the emotion regulation process model were addressed ('Some people may try a number of different things when they feel anxious whereas others may stick to one strategy. How likely is it that you would try different things or stick with one 'technique' to feel better?).

Aspects of the interpersonal emotion regulation context (RQ5). In a systematic methodological review examining the development of semi-structured interviews, one of the essential steps identified for a rigorous interview schedule was retrieving, studying and utilising current knowledge to formulate interview questions about the topic of interest (Kallio et al., 2016). To ensure the different ways in which students use others to regulate their anxiety are

captured within the interviews, questions were roughly mapped onto themes reflected in the Interpersonal Emotion Regulation Questionnaire (IER-Q), one of the most commonly used and accepted measures of interpersonal emotion regulation (Hofmann et al., 2016). Hofmann et al. (2016) utilised a qualitative data analysis to generate and organise interpersonal emotion regulation strategies which capture how individuals use others to regulate; this resulted on the development of the IER-Q which consists of 20 items centred around evaluating four main interpersonal emotion regulation categories: seeking others in order to increase positive emotion; utilising others to gain perspective about a situation causing negative emotion; seeking others who can provide comfort; looking to others to note how they regulated their emotions in similar situations. These categories were used to guide the formation of openended questions (e.g., 'How do you feel being around others or knowing others who experience anxiety?) examining interpersonal processes that adolescents perceive as helpful/hindering in the generation and regulation of anxiety (see Appendix D for full Interview Schedule).

#### 3.6 Pilot Study

A pilot study can help researchers to address problems related to the measures of the study before large scale data collection begins, improving overall validity, and reliability, and refining the focus and strategy of the study (Gudmundsdottir & Brock-Utne, 2010; van Teijlingen & Hundley, 2002). Both questionnaires and interview schedules were piloted and adapted according to feedback. Six students aged 12 – 16 years were employed through the circle of peer researchers and colleagues from the researcher's LA placement. Three participants opted for interviews via instant messaging and three via telephone. The participants were asked to note down questions which lacked clarity, or where they needed further examples to enhance their understanding, whether the questions asked fitted with their general emotion regulation experiences, whether any further questions that would capture their experiences at this stage of life should be included, and whether more breaks than the ones offered would be helpful. Based on this feedback some interview questions were adapted

to include specific real-life examples of emotion regulation strategies, some were shortened, and some were presented in a different order. This also allowed the researcher to gain a clearer idea about the length of interviews, e.g., the instant messaging interviews took much longer, and therefore the researcher planned timings more appropriately when booking interview slots for the main study.

#### 3.7 Data Analyses

Questionnaire data was analysed utilising descriptive and inferential statistics. Due to the sample being slightly smaller than the G\*power calculation, quantitative data from students who took part in the pilot study were included in the analyses to slightly boost the overall power of the data. The data were analysed using the Statistical Package for the Social Sciences (SPSS 27: IBM) Software. Relevant items in the (personal and general) emotion controllability beliefs scales were reversed so that all scale items were in the same direction. The emotion controllability beliefs and Anxiety scales were treated as continuous variables, so as to not lose power occurring from splitting dimensional variables (Cohen et al., 1983). The main variables were constructed by totalling up relevant questionnaire items relating to General emotion controllability beliefs, Personal emotion controllability beliefs, Reappraisal Use, Suppression Use, and Anxiety, resulting in five variables in the dataset. Assumptions required to be met for performing correlational and regression analyses were thoroughly checked and were found to be met (see 'Findings' Chapter below), so the researcher proceeded with the intended analyses as planned.

Due to the ordinal nature of the data, Spearman's correlation coefficient was used to examine the strength and direction of association between (ordinal) variables (de Winter et al., 2016; Myers & Sirois, 2006). Regression analyses were used to understand the influence of (personal and general) emotion controllability beliefs, suppression and reappraisal use on symptoms of anxiety. More specifically, through these analyses the researcher aimed to determine which variables significantly predicted higher (or lower) levels of anxiety in adolescents. Furthermore, hierarchical linear regression was used with different variables

being entered in different steps in order to determine the predictive power each variable added into a model where anxiety symptoms were the dependent variable. In order to test whether emotion regulation mediated the relationship between emotion controllability beliefs and anxiety, a bias corrected bootstrap of 5000 samples was used, and the latest PROCESS macro (version 3.5) by Hayes and Preacher (2014) was employed. Bootstrapping is found to be a powerful method that sufficiently controls for Type I error (Hayes, 2009), and which can accurately indicate confidence interval limits (MacKinnon et al., 2002). While this method has some limitations, it is considered the current best available option when compared to other mediation methods (MacKinnon et al., 2007; Preacher & Kelley, 2011). Table 3 presents the specific research question addressed through the different types of analyses used.

Table 3

Research questions, measures and relevant analyses.

	Research Question	Measures	Analysis
1.	Do adolescents who believe that they have a lot of control over their emotions use different emotion regulation strategies from adolescents who believe that they have little control over their emotions?	Personal and General emotion controllability	Correlation and Regression Analyses
2.	Does emotion regulation mediate the relationship between emotion controllability beliefs and anxiety?	beliefs scale / ERQ-CA / BAI	Mediation analyses
3.	How do adolescents perceive the generation and regulation of anxiety?	Semi-structured interviews	Thematic Analysis
4.	What reasons do adolescents give for using certain regulatory strategies more frequently than others?	Semi-structured interviews	Thematic Analysis
5.	Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety?	Semi-structured interviews	Thematic Analysis

*Interview data* derived from the three telephone interviews was transcribed and then, together with the data from the seven instant-messenger interviews were analysed using

Thematic Analysis (TA). According to Clarke and Braun (2017, p.298), TA is "a method for identifying, analysing, and interpreting patterns of meaning ('themes') within qualitative data" and it involves six stages of analysis (see Table 4) (Braun & Clarke, 2006). While a number of other qualitative data analyses approaches were also reviewed (detailed review in Appendix H), TA, which enables understanding of the participants' worldviews and experiences while acknowledging the role of the context in which such meanings develop (Braun & Clarke, 2013), fits well with the contextualist stance of this study. It also aligns with the researcher's aim to understand how contextual and interpersonal factors may impact how an individual progresses through the various emotion regulation stages. TA was used in an inductive, datadriven rather than semantic manner, to allow for an exploration of meaning that was not determined by pre-existing theories, as the researcher's aim was to build on the process model (Gross, 2015) rather than apply it to the data for further validation. As, however, Braun et al. (2014) have noted, researchers approach the data with epistemological commitments and preexisting knowledge of relevant literature, which can limit their ability to be truly inductive in their analyses. In acknowledgement of that and in order to focus analysis on the specific (intraand inter-personal emotion regulation) context of interest so that findings are relevant to theory, a deductive approach was also taken in that RQs were kept in mind when generating themes/subthemes.

While the process of analysis closely and orderly followed the stages of TA (see Table 4 for 'Thematic Analysis Framework'), it should be acknowledged that it was also done in an evaluative manner, therefore including revisions on various occasions before finalisation. Appendix I presents a sample coded transcript, the process of ode grouping, theme searching and review. Code frequency for each theme/subtheme and a complete thematic map are shown in the 'Findings' chapter. It should be noted that code frequency was recorded for transparency of the process and understanding of theme/subtheme commonality, while recognising that high prevalence does not automatically translate to importance/meaningfulness (Braun & Clarke, 2012). The inclusion of the Emotion Contagion

subtheme is indicative of this, as while this concept was only discussed by two participants, the context in which it was raised was highly significant for emotion regulation pathways.

Table 4

Thematic analysis framework.

Phase		Description of the Process	The Present Researcher's Engagement with
			the TA Process
1	Familiarising yourself with your data:	Transcribing data (if necessary), reading and rereading the data, noting down initial ideas.	Transcription of telephone interviews with initial thoughts and reflections marked in blue colour next to text.  Extraction of WhatsApp interview data to Word document, re-reading data and noting thoughts and reflections marked in blue colour next to text.
2	Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.	Re-reading the data (four times in total excluding initial step of familiarisation) and coding in an inductive, data-driven rather than semantic manner (e.g., 'It was in an assembly hall, we were stood on a stage with everyone else sat down. I think that made me more uncomfortable as I couldn't do anything about it and everyone was looking at me'; coded as 'lack of control') – codes highlighted in green colour to also compare with initial reflections in Phase 1. Maintaining a reflexivity journal throughout this process, and shared in supervision when needed.
3	Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.	All codes were collated together (without being grouped), once these were re-read multiple times, the researcher began grouping them into potential themes (codes 'creating a calm classroom atmosphere', 'interactive teaching methods', 'teachers recognising students' need for quiet and calm when they were highly anxious', 'teachers trusting students', 'giving students control', 'a friendly and relaxed atmosphere', 'structure and predictability provide a sense of safety' were initially grouped under the categories/initial themes of 'classroom management', 'changes to the

			environment in response to student need', 'accommodating teachers').
4	Reviewing themes:	Checking if the themes work in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic 'map' of the analysis.	Re-reading blue and green codes, initial categories and creating a draft thematic map. Discussed in supervision with academic supervisor, and with peers. In acknowledgement that researchers approach the data with epistemological commitments and pre-existing knowledge of relevant literature, which can limit their ability to be truly inductive and in order to focus analysis on the specific (intra- and inter-personal emotion regulation) context of interest so that findings are relevant to theory, a deductive approach was also taken in that RQs were kept in mind during this stage of analysis.
5	Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.	Refining thematic map, reflections on supervisor and peer feedback and the researcher's own input on the data. Reviewing theme and subtheme structures (e.g., 'access to attuned others' was initially an overarching theme, whereas later on it became obvious that it was part of / a subtheme to the theme 'emotionally containing [school] environments'), theme/subtheme names and order.
6	Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.	Ordering extracts from more characteristic/interesting to less characteristic/interesting and presentation of these to supervisors for feedback within the initial Draft Findings Chapter. This Chapter was also shared with two peers for feedback. Following feedback, the report of the analysis was produced.

Note. Adapted from "Using thematic analysis in psychology", by V. Braun & V. Clarke, 2006, Qualitative Research in Psychology, 3 (77), p.87.

## 3.8 Research Integrity and Quality

Reliability, validity and generalisability tend to be the main indicators of quantitative research quality (Robson & McCartan, 2016). In qualitative research, however, such

constructs are less relevant, and instead credibility, dependability, and transferability are discussed (Robson, 2002). Despite the different terminology, all such constructs highlight the importance of research integrity and trustworthiness in relation to the methods applied and the processes of analysis and interpretation utilised (Cohen et al., 2018). The present research aimed to maximise trustworthiness by utilising a mixed-methods design to examine complex phenomena in a more robust and in-depth way, utilising each method to complement and build on the findings of the other (Ivankova et al., 2006). While the trustworthiness of mixed-methods research has received considerable criticism, a level of validity is possible to establish by using strategies which minimise threat to accuracy of analytical procedures and interpretation of findings (Braun & Clarke, 2013; Cohen et al., 2018; Creswell & Plano Clark, 2011, 2018; Noble & Smith, 2015). Validation strategies discussed by Creswell and Plano Clark (2018) and Miles et al. (2020) include data triangulation, consideration of 'negative' evidence (instances disconfirming one's ideas during analysis), cross-checking data (e.g., through peer reviewing), and representativeness of multiple views within analyses. Along similar lines, Yardley's (2017) proposed quality indicators for qualitative studies include: commitment and rigor; sensitivity to context; transparency and coherence; impact and importance. Steps taken to establish trustworthiness and quality in this study are specified in Table 5.

Table 5

Trustworthiness of research.

Quality Indicator	Steps Towards Trustworthiness					
	Transparency about philosophical position (section 3.1)					
Validity	Triangulation of questionnaire data through interview responses.					
	Piloting of quantitative and qualitative measures to ensure construct					
Credibility	validity, accessibility of interview questions, and relevance to					
	adolescence.					
Dependability	ty • Critical evaluation of quantitative measures used (section 3.5).					
	Cross-checking codes in supervision, and with peers (e.g., theme)					
Confirmability	name changed from 'management of educational context' to					
	'adaptations to the learning environment' following feedback).					

	<ul> <li>Use of rigorous analysis methods consistent with established TA framework.</li> <li>Increased representativeness through the use of quotes from a range of adolescents in 'Findings' chapter.</li> <li>Commitment evidenced through the use of a reflexivity journal throughout.</li> <li>Negative case analysis where relevant (in one instance for Theme 6).</li> <li>Maintenance of research activity records and inclusion of these in Appendices.</li> </ul>
Reliability	<ul> <li>Anonymity and confidentiality throughout to minimise desirability bias. No existing relationships with schools/participants.</li> <li>Minimising discomfort during interviews through: participants' choice of interview mode, pacing, offering breaks, using a non-judgemental stance and EP consultation skills.</li> </ul>
Sensitivity to context	<ul> <li>Consideration to the impact of recession, pandemic, and socio-economic factors in the review of theory and research (Chapters 1 and 2).</li> <li>Consideration to developmental factors when selecting the anxiety measure and within interviews (e.g., vignette about performance anxiety).</li> </ul>
Impact and importance	<ul> <li>Implications for the use of executive frameworks by EPs and other professionals, for adolescent mental health, intervention, assessment, school practices, and policy.</li> <li>Plans to disseminate findings to participating schools through webinar/leaflet, presentation to TEP conference, and EP service the researcher is based at.</li> </ul>

#### 3.9 Ethical and Professional Practice Considerations

Ethical approval for this study was granted by UCL IOE Research Ethics Committee (Appendix C). The Code of Ethics and Conduct for psychological research was adhered to throughout all stages of the study (British Psychological Society [BPS], 2018). It should also be noted that the researcher has an up-to-date and clear Data Barring Service (DBS) which authorises work with vulnerable children and young people. Informed consent was gained from parents and adolescents, and the information and consent forms stated participants' right to withdraw consent and their data at any point of this research (see Appendix E for Informational and Consent Forms). While consent forms covered participation to both the questionnaire and interviews, for adolescents who were selected for the second phase of the

study verbal consent was also sought and their rights were re-stated at the beginning of the interview.

Information regarding the aim, length and general content of the study was provided to all participants, and a choice between telephone and instant-messenger interviews at a date and time most convenient to the them was discussed. The researcher also gave the opportunity to SENCOs, parents, and students to raise questions or concerns, and request that adjustments are made if needed. It was made clear that interview questions students did not wish to answer could be omitted. To address the power imbalance between the researcher and the interviewees, the researcher shared an accessible one-page profile about herself (presented in Appendix G). The interview began with an ice-breaker activity to promote shared enjoyment, gradually build trust, and to some extent further decrease the power differential. To minimise social desirability effects, it was explained that there were no right/wrong answers in the questions asked, and that these aimed to explore the individual experiences of each participant instead. Further, the (physical) distance between the researcher and the interviewee is thought to have a 'protective' effect against children and young people's perceptions about the researcher's social judgement, therefore further contributing to response honesty (Cleary & Walter, 2011).

Specific considerations relating to the remote nature of the interviews were also made. To account for the risk of tiredness during remote research with children and young people (Rhodes et al., 2020), check-ins and reminders about the students' right to breaks were included at regular intervals throughout the interviews. At the same time, to avoid the quality of the data being compromised by interruptions and shifting attention between different tasks (Rollins & Riggins, 2021), questions were kept as short, engaging, and easy to follow as possible, with clarifying and follow-up questions included where needed. To uphold the participants' rights to privacy, promote response honesty and comfort, prior to interviews it was checked whether adolescents could have access to a private space and if this was not possible, the option of accessing a quiet space in school was offered. Provisional

arrangements regarding using school computer equipment or broadband connection were made with SENCOs, so none would be excluded due to a lack of resources.

Sensitive topics. To account for potential risks associated with reflecting on previous anxiety-provoking experiences, an emotion check-in was completed at the end of each interview, reflections on the process were encouraged, and a debriefing form was circulated (Appendix B). Further, the researcher's TEP status and previous experiences supporting students with mental health needs meant that she was able to draw onto her consultation skills to create a non-judgemental, safe atmosphere, pay close attention to students' needs throughout, and confidently and responsibly support them, if stress at any point was experienced. It should, however, be acknowledged that the lack of knowledge of the students' whereabouts or what resources were in their environments to support them if needed is a known concern of remote research (Rhodes et al., 2020). A list of relevant resources was, therefore, compiled, and students and parents were given the researchers details, and details of relevant helplines where appropriate (see Appendix B).

Confidentiality, Anonymity and Inclusivity of Research. All data were anonymised and kept securely under the data protection measures outlined in the ethics application. While WhatsApp, the software used for instant-messenger interviews, is known to have one of the highest levels of security for data with "end-to-end encryption", it was acknowledged that with third-party software there is a risk of intrusion (i.e., hacking); participants were encouraged to find out how WhatsApp stores their data and check the WhatsApp privacy notice. Participants were expected to be familiar with communication through the instant-messenger functions associated with social networks (e.g., Facebook), and so more likely to easily adapt to WhatsApp given its similarity with other instant-messenger options (Sutikno et al., 2016). For students not accustomed with this tool, information about how to download and use it was ready to be provided. WhatsApp compared to other instant-messenger platforms benefits from offering more privacy in that it does not require a connection to young people's main social media accounts (e.g., Facebook/Instagram). Furthermore, research has begun to

demonstrate that the utilisation of instant-messaging may improve accessibility of research and facilitate more meaningful participation by allowing young people more control over the interview pace and direction, validating their expertise in leading the conversation about matters that affect them, especially when the topic is young people's mental health experiences (Gibson, 2020). Finally, WhatsApp enabled the communication of multi-media data that could be used to explain a more complex point or take away the pressures of providing lengthy written responses.

## 4. Findings

In this chapter results from the questionnaire and interviews will be presented. The results from the quantitative arm of the study will be reported first, followed by the results from the interviews conducted. The analyses of each dataset (quantitative and qualitative) will be presented in relation to the research question which it intended to answer.

## 4.1 Phase One: Quantitative Data Analyses

## 4.1.1 Preliminary Analyses

Out of the 81 participants that completed the online questionnaires, 25 identified as male (30.9%), 54 as female (66.7%), one as 'other' (1.2%), and another one preferred to not disclose information about their gender identity ('prefer not to say') (1.2%). In terms of the participants' age, 17 participants (21%) were 13 years old, 32 of them (39.5%) were aged 14, 24 students (29.6%) were 15 years old, and the remaining 8 participants (9.9%) were 16 years of age.

Descriptive statistics. The mean (M), median (Md), standard deviation (SD), mode, range, and internal consistencies (a) of the main study variables were calculated and are presented in Table 6. In order to examine potential between-gender differences in age, (general and personal) emotion controllability beliefs, emotion regulation use, and anxiety levels, the overall and subgroup means for gender were calculated (see Table 7). As there were relatively few participants in each subgroup for gender, one must be cautious when interpreting differences in numbers. See Table 8 for the meaning of lower/higher scorings on the scales.

### Table 6

Descriptive statistics for age, year group, general and personal emotion controllability beliefs, suppression, reappraisal, and anxiety.

	М	Md	SD	Mode	Range	а
Age	14	N/A	.912	14	13 – 16 (3)	N/A
Year Group	10	N/A	.786	9	9 – 11 (2)	N/A
General emotion controllability beliefs	3.11	3.00	.734	3.00	1.50 – 4.50 (3.00)	.67
Personal emotion controllability beliefs	3.15	3.00	.967	2.75	1.00 – 5.00 (4.00)	.84
Suppression Use	3.88	4.00	1.267	4.75	1.25 - 6.75 (5.50)	.74
Reappraisal Use	4.41	4.50	1.164	3.67	1.50 - 7.00 (5.50)	.86
Anxiety	2.19	2.15	.652	2.15	1.20 - 3.95 (2.75)	.94

Table 7Means of primary variables by gender.

	Age	General emotion controllability	Personal emotion controllability	Suppression	Reappraisal	Anxiety
		beliefs	beliefs			
Male	14	3.31	3.35	4.04	4.83	1.76
Female	14	3.02	3.00	3.77	4.22	2.37
Other	16	3.25	2.00	4.50	3.67	2.85
Prefer not to	15	2.75	2.75	5.50	5.17	2.15
say						
Overall	14	3.11	3.15	3.88	4.41	2.18

Table 8

Meaning of different scale ratings.

Construct	Rating	Meaning
General emotion controllability beliefs	1	The participant believes that people cannot control their emotions.
	5	The participant strongly believes that people can control their emotions.
Personal emotion controllability beliefs	1	The participant believes that he/she/they cannot control their own emotions.

	5	The participant strongly believes that he/she/they can control their own emotions.
Suppression	1	The participant does not use suppression.
	7	The participant does not show their emotions to others/uses suppression on most occasions.
Reappraisal	1	The participant does not use reappraisal in order to regulate their emotions.
	7	The participant uses reappraisal to regulate their emotions on most occasions.
Anxiety	1	The participant does not experience symptoms of anxiety.
	4	The participant always experiences significant anxiety symptoms.

Correlation analyses using Spearman's rho coefficient analyses among general and personal emotion controllability beliefs, suppression and reappraisal, and anxiety were performed (see Table 9). It should be noted that this was in order to gain an initial understanding of the relationships between the study variables, and Hayes' view (2018) that an association between predictors and independent variables is not a pre-requisite of mediation analysis is adopted in this study.

As expected, the results showed that there was a strong, positive relationship between adolescents' (general and personal) emotion controllability beliefs and their use of reappraisal; this relationship was stronger when it came to adolescents' personal rather than general emotion controllability beliefs. Interestingly, a small, negative relationship between (general and personal) adolescents' emotion controllability beliefs and their use of suppression was also found. The association between adolescents' use of suppression and self-reported anxiety symptoms was approaching significance, r(81) = .21, p = .059, while the use of reappraisal was negatively but significantly related to anxiety symptoms experienced by adolescents. Further, a negative, moderate relationship between adolescents' general emotion controllability beliefs and anxiety was found. Similarly, adolescents' personal emotion controllability beliefs and anxiety symptoms were negatively and significantly associated. Age was not significantly related to (personal and general) emotion controllability beliefs, suppression, reappraisal, or anxiety symptoms.

Table 9

Bivariate correlation using Spearman's rho coefficient between age, general and personal emotion controllability beliefs, suppression, reappraisal, and anxiety.

1.			2	3	4	5	6
	Age	1					
2.	General emotion controllability beliefs	20	1				
3.	Personal emotion controllability beliefs	14	.69***	1			
4.	Suppression Use	04	27*	23*	1		
5.	Reappraisal Use	13	.58***	.73***	03	1	
6.	Anxiety Symptoms	.16	47***	62***	.21	49***	

*Note. N* = 81; \**p* < .05, \*\**p* < .01, \*\*\**p*< .001.

4.1.2 Do adolescents who believe that they have a lot of control over their emotions use different emotion regulation strategies from adolescents who believe that they have little control over their emotions? (RQ1)

Linear regression assumptions checking. Prior to performing a regression analysis, it was checked that the data met the required assumptions of this type of analysis (adequate sample, multivariate normality, linear relationship, homoscedasticity, no or little multicollinearity) (Wilcox, 2012). As the necessary assumptions were met for all variables of the study (see Appendix A for details of analyses performed to check assumptions required), it was possible to proceed with parametric tests.

Predicting reappraisal and suppression use from general emotion controllability beliefs. A simple linear regression was calculated to predict the use of reappraisal and suppression based on (general and personal) emotion controllability beliefs held by adolescents. As predicted, adolescents who strongly believed that people could control their

emotions (scoring high on general emotion controllability beliefs) were more likely to use reappraisal to regulate their emotions ( $\beta$  = .59, p < .001). General emotion controllability beliefs significantly contributed to the regression model (F (1, 79) = 41.46, p < .001) and accounted for 34.4% of the variation in reappraisal use. Contrary to our prediction and previous research findings (Ford et al., 2018; Tamir et al., 2007), believing that people can control their emotions was associated with less use of suppression ( $\beta$  = -.27, p = .013). Adolescents' general emotion controllability beliefs significantly contributed to the regression model (F (1, 79) = 6.39, p = .013) and accounted for 7.5% variance in suppression use.

Predicting reappraisal and suppression use from personal emotion controllability beliefs. As expected, the stronger adolescents believed that they could control their own emotions (scoring high on the personal emotion controllability beliefs measure), the more likely they were to use reappraisal to regulate their emotions ( $\beta$  = .71, p < .001). Adolescents' personal emotion controllability beliefs were found to significantly contribute to the regression model (F (1, 79) = 80.31, p < .001) and accounted for 50% of the variation in reappraisal use. Additionally, the more adolescents believed they could control their own emotions, the less likely they were to use suppression ( $\beta$  = -.25, p = .028). Adolescents' personal emotion controllability beliefs made a significant contribution to the regression model examined (F (1, 79) = 5.05, p = .028) and accounted for 6% variation in suppression use.

Supplementary analyses: Predicting anxiety and emotion regulation from personal vs. general emotion controllability beliefs. In order to further understand the predictive validity of each variable, a series of hierarchical regression analyses examining the unique variance explained by emotion controllability beliefs and emotion regulation use in anxiety symptoms were conducted. Overall, while both general and personal emotion controllability beliefs as well as reappraisal use accounted for a significant proportion of variance in adolescent anxiety, personal emotion controllability beliefs consistently explained unique variance over and above all other study measures (see Table 10 for hierarchical regression analyses performed), which is in line with our prediction and previous research (De

Castella et al., 2013). Further details about these supplementary analyses can be found in Appendix J.

Table 10

Hierarchical regression analyses predicting anxiety while controlling for (general and personal) emotion controllability beliefs, reappraisal and suppression use.

	/ariable and	Cum	nulative	Simul	taneous
	Step	R <sup>2</sup> Change	F Change	β	р
1.	General emotion controllability beliefs	.17	F (1, 79) = 16.40***	19	.156
2.	Reappraisal Use	.05	F (1, 78) = 5.02*	31	.014
3.	Suppression Use	.03	F(1, 77) = 2.53	.17	.116
1.	Personal emotion controllability beliefs	.34	F (1, 79) = 41.47***	53	< .001
2.	Reappraisal Use	.00	F(1,78) = .02	05	.738
3.	Suppression Use	.01	F (1, 77) = .87	.09	.355
1.	Personal emotion controllability beliefs	.34	F (1, 79) = 41.47***	54	.001
2.	General emotion controllability beliefs	.00	F (1, 78) = .01	.02	.895
3.	Reappraisal Use	.00	F (1, 77) = .01	05	.723
4.	Suppression Use	.01	F (1, 76) = .87	.09	.354

Notes. N = 81; \*p < .05, \*\*p < .01, \*\*\*p< .001.

# 4.1.3 Does emotion regulation mediate the relationship between emotion controllability beliefs and anxiety? (RQ2)

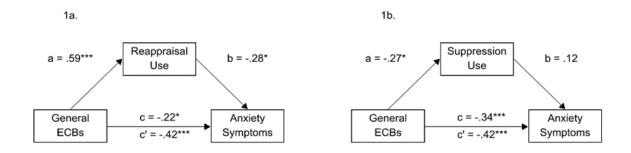
In order to test whether emotion controllability beliefs were associated with anxiety via emotion regulation strategy use, the indirect effect of emotion controllability beliefs via emotion regulation was examined using separate analyses for each of the independent (general and personal emotion controllability beliefs) and intermediary variables (reappraisal and suppression use). In total, four separate analyses were conducted: the first two examining the indirect effect of general emotion controllability beliefs via reappraisal (Model 1a) and then suppression (Model 1b) on anxiety; the third and fourth analyses testing the indirect effect of personal emotion controllability beliefs on anxiety via reappraisal (Model 2a) and then via suppression use (Model 2b).

While the direct effect (c') was calculated, it is acknowledged that that the c' path is not an appropriate indication of whether mediation is present (Hayes, 2018). Therefore, in order to determine whether a mediating relationship between the study variables was present, the indirect effect was tested for significance. The concepts of full and partial mediation were not used, as these do not only unhelpfully rely on the size of the sample, but distinguishing between these two is also not thought to be theoretically meaningful or offer any unique insight into the phenomena under examination (Hayes, 2018). Furthermore, specific effect sizes were not used as an indication of the strength of the mediation model in acknowledgement that effect size has been found to be based on flawed calculations (Hayes, 2018; Preacher & Kelley, 2011; Wen & Fan, 2015).

The results for the mediational analysis of Model 1 (a and b) are detailed in Figure 5. There was a significant indirect effect of general emotion controllability beliefs on anxiety symptoms via the use of reappraisal, ab = -.16, SE = .07,  $Cl_{95}[-.30, -.03]$ , indicating mediation. However, there was no significant indirect effect in a model wherein general emotion controllability beliefs predicted anxiety symptoms through the use of suppression (ab = -.03, SE = .03,  $Cl_{95}[-.12, .01]$ ).

#### Figure 5

Model 1. Model 1a: The indirect effect of general emotion controllability beliefs on anxiety via reappraisal. Model 1b: The indirect effect of general emotion controllability beliefs on anxiety via suppression.

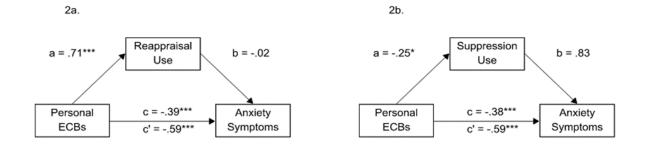


Notes. All presented values are standardised beta coefficients. \*p < .05, \*\*p < .01, \*\*\*p< .001.

The mediational analysis of Model 2 showed that emotion regulation use did not mediate the link between personal emotion controllability beliefs and adolescent anxiety symptoms. The indirect effect of personal emotion controllability beliefs via the use of reappraisal was not significant for anxiety symptoms (Model 2a) (ab = -.01, SE = .08,  $Cl_{95}$  [-.18, .14]). The indirect effect of personal emotion controllability beliefs via suppression was also not significant for anxiety symptoms (Model 2b) (ab = -.02, SE = .02,  $Cl_{95}$  [-.08, .02]). The full results for Model 2 are presented in Figure 6.

#### Figure 6

Model 2. <u>Model 2a</u>: The indirect effect of personal emotion controllability beliefs on anxiety via reappraisal. <u>Model 2b</u>: The indirect effect of personal emotion controllability beliefs on anxiety via suppression.



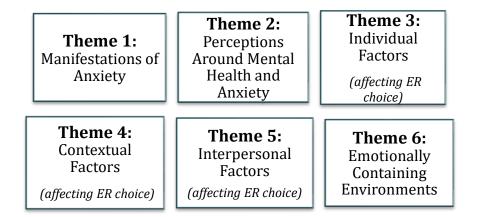
Notes. All presented values are standardised beta coefficients. \*p < .05, \*\*p < .01, \*\*\*p< .001.

#### 4.2 Phase Two: Qualitative Data Analysis

The thematic analysis of (10) interviews identified six main themes: (1) manifestations of anxiety; (2) perceptions around anxiety and mental health; (3) individual, (4) contextual, and (5) interpersonal factors (affecting emotion regulation choice); and (6) emotionally containing environments (Figure 7). Some of these themes were connected and thought to influence one another (details about the interconnections detected between themes/subthemes in Figure 8). The number of participants and frequency of codes for each theme/subtheme are summarised in Tables 10 (RQ3), 11 (RQ4), and 12 (RQ5).

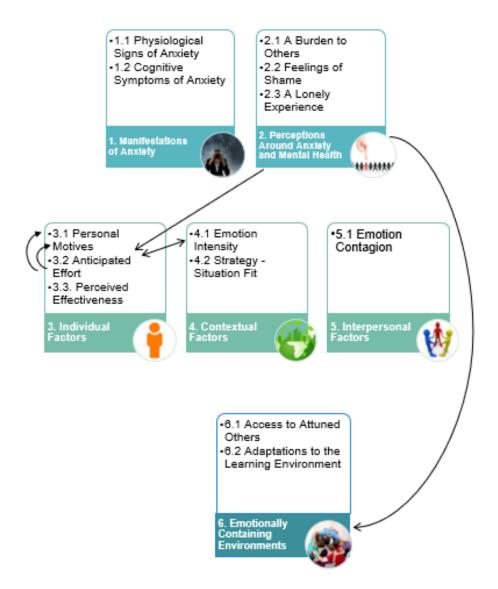
Overview of themes.

Figure 7



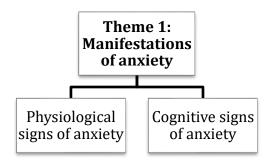
Thematic map demonstrating interconnections between themes and subthemes.

Figure 8



4.2.1 How do adolescents perceive the generation and regulation of anxiety? (RQ3)

**Theme 1: Manifestations of Anxiety.** This theme represented the participants' experiences of anxiety including how they recognise when they are anxious. All students referred to this, and shared examples of situations that have made them feel anxious, even those students interviewed who had previously scored low in the anxiety measure.



The **subtheme** 'Physiological Signs of Anxiety' encompasses students' descriptions of the impact of anxiety on their bodies. The participants explained how noticing various physical symptoms helped them to recognise that they were starting to feel anxious in certain situations. Accounts of anxiety often demonstrated sudden changes in physiology which were experienced intensely and described as out of the student's control: *Um just feeling like, extremely worried, to the point where it kind of makes you like, feel like physically ill or like, have physical problems* [...] *like, your heart beating faster, or like, like hand twitching, stuff like that* (Participant 7).

Some participants viewed the physiological symptoms of anxiety as more controllable; they talked about the importance of being in tune with their bodies and using relaxation techniques in the moment to relieve some of those physical signs of anxiety:

[...] I don't know for sure if it's that, I might just get stressed, but doing the same stuff I do if I have an asthma attack usually helps (Participant 5).

I use a range of techniques normally like calming the breath [...] I've read quite a few books on it so use techniques from there (Participant 10).

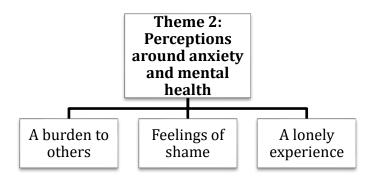
The **subtheme** 'Cognitive Signs of Anxiety' referred to students' portrayal of the impact of anxiety on their thoughts. A number of students noticed that when they started experiencing anxiety, they tended to engage in negative thinking patterns, including catastrophising, dwelling on the event, and overly focusing on all possible negative outcomes, which often led to an increase in anxiety:

Participant 5: It's just sort of paranoia where if you see people laughing you assume they're laughing at you even though you know they're probably just talking to each other.

Participant 3: When I feel nervous [...] I feel like I think if (of) the worst situation.

One participant also described how anxiety impacted her memory, and explained that having access to a visual tool (a PowerPoint) during a presentation for which she was particularly anxious helped her to remember the key information.

Theme 2: Perceptions around Anxiety and Mental Health. This theme captured the students' descriptions of anxiety and mental health difficulties as carrying negative connotations. The participants felt that anxiety and mental health difficulties are negatively perceived by others which often led them to feel ashamed about experiencing anxiety, and avoid expressing their true feelings amongst others. Students who expressed such views also seemed to have internalised these negative views about anxiety and poor mental health, and often felt 'different' because of their experiences. This had implications for both their experience and regulation of their anxiety.



The **subtheme** 'A Burden to Others' was about comments from some students about the emotional load that they felt would be placed upon their friends, family, or partner if they were to share their feelings of anxiety with them:

Participant 7: (I hide how I feel) just because I don't want, I don't want to burden other people with how I'm feeling.

Participant 9: I think you're kind of putting your problem on them. And then it's kind of their decision what to do next. So, it's almost (pause) you kind of telling them and kind of fussing about it to them, it's kind of making them feel worse. So, I just wouldn't really want to make anyone else feel worse and kind of put my problems on them.

Viewing anxiety as a burden to others could prevent students from seeking support when they needed it; those students who asked for help to manage their anxiety despite feeling like this would burden others only did so as an absolute last resort, with one participant in particular expressing a deeper-rooted belief that his experience was not valid enough to deserve the attention and support of others.

The **subtheme** 'Feelings of Shame' represented the negative emotions that students experienced in relation to their anxiety or other mental health difficulties. The majority of students perceived the expression of anxiety as something to be embarrassed about. Therefore, they often suppressed their emotions when around others. Suppression was used despite the recognition by some students that it was an ineffective strategy to regulate their anxiety, and could even make their anxiety worse; however, the fear of looking vulnerable or being misunderstood by peers when expressing how they felt was stronger:

Interviewer: And why is it that you try and physically hide it from others? Participant 10: I don't want others to see weaknesses in me.

Participant 2: Usually if I'm alone I'll do whatever but if I'm with other people I don't want to be bursting out into tears or something [...] I don't want to be embarrassed if I start having a reaction or something.

The **subtheme** 'A Lonely Experience' captured descriptions of anxiety as an experience not shared amongst adolescents. A number of students mentioned feeling alone and different, and expressed a subsequent sense of helplessness:

Participant 1: I guess I feel more comfortable knowing that people have felt the same way as I have, but even then I still feel kind of alienated. I'm not sure why, I think I feel

like nobody has really listened or understood how I actually feel. Like venting to people, or knowing people who have been through what I have doesn't really inspire me or make me feel comfortable. I still feel kind of distant and different.

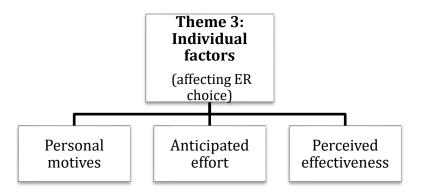
Table 11

Theme/subtheme summary for RQ3

Theme	Subtheme	No. of participants referring to subtheme	No. of times coded
Manifestations of	Physiological Signs of Anxiety	10	25
Anxiety	Cognitive Signs of Anxiety	7	8
Perceptions around	A Burden to Others	8	14
Anxiety and Mental Health	Feelings of Shame	6	8
	A Lonely Experience	4	5

4.2.2 What reasons do adolescents give for using certain emotion regulation strategies more frequently than others? (RQ4)

Theme 3: Individual Factors. This theme represents factors that drove students to choose and engage with particular emotion regulation strategies. Within-individual factors discussed included: personal motives and goals, students' own perceptions of how much effort different emotion regulation strategies required, and the perceived effectiveness of different emotion regulation strategies for meeting their emotion regulation goals.



The **subtheme** 'Personal Motives' concerned how students' emotion regulation choices were driven by individual motives. These motives varied from student to student, and were linked to specific short-term or long-term outcomes they were looking to achieve at the time. Some students wanted to improve their emotional experience in relation to a distressing event, and chose emotion regulation strategies that made them feel better in the 'here and now' by reducing their negative emotions. emotion regulation strategies for doing that focused on shifting attention away from emotionally triggering information; for example, students used distraction, suppression of thoughts about the distressing event, and avoiding engaging with the event that triggered their anxiety, although this provided only short-term relief:

Participant 2: When I get stressed with school (more so now because of online school)

I just don't do it. Which is really bad because I have like lots of late assignments but I feel better mentally when I don't do it.

Participant 7: Um, I wouldn't not go to the event. But I'd probably try and pretend it's not going to happen, just like to keep my mind off it [...] talking to friends, watching Netflix [...] it kind of just kind of separates the emotions like out. So, it just kind of calms down like my anxieties, replacing them with more like positive feelings.

By contrast, other students were driven by more long-term goals when selecting emotion regulation strategies. For example, a few students explained that they were keen to perform well when sitting a test or taking part in a recital, and so chose strategies that aided them in doing so. Students acknowledged that this meant they initially had to withstand negative emotions for longer (e.g. when revising or practicing dance moves repeatedly), but

this was okay as long as it would lead to their desired outcome; later on (on the day of the performance), students described using active coping mechanisms, cognitive reappraisal, and suppression of their anxious thoughts in order to regulate their anxious feelings in the moment, be able to persevere and focus on the task at hand rather than the emotion:

Participant 6: I am a street dancer who has done many shows and taken part in competitions and when I'm nervous I do tend to have coping mechanisms [...] that's also in any circumstance for example, waiting for results for college applications etc. not just things such as being in front of a crowd [...] my many 'mechanisms' -for like of a better term- enable me to be able to continue and not be totally anxious and took over by these feelings of nervousness.

Participant 10: I had mentally prepared beforehand by telling myself that I had worked hard to this point and had practised a lot and focused on the music instead of the audience.

The **subtheme** 'Anticipated Effort' explored students' perceptions of how much effort was required of them when engaging in emotion regulation and implementing different strategies; a number of participants described being more inclined to choose less effortful strategies. Often, the strategies perceived as requiring less effort were those that students had practiced or utilised before. When asked to reflect on the implementation of emotion regulation strategies usually selected, Participant 7 characteristically noted: *I think it's quite easy, because I've done it a lot.* Instead, strategies which would involve changing their emotional experience, and especially reappraisal, were considered to be harder:

Participant 2: I don't know if I control it (my anxiety) I sort of procrastinate on it. So, I sort of bottle it up and then get upset about it later if that makes sense [...] I think it's quite difficult for me to do things to make myself feel better [...] So I usually try and stay sad I guess. I find it easier to just be sad than put effort into feeling better.

Finally, one student expressed how implementing strategies which entailed changing the expression of his anxiety in front of others was difficult, as this required continuous effort on his part: I think I just find it kind of difficult to do that, because you're almost like trying to put something on that you're not, like all the time. So, I think that would be kind of difficult to do (Participant 9).

The **Subtheme** 'Perceived Effectiveness' captured how students evaluated the efficacy of different emotion regulation strategies. Participants were more likely to choose an emotion regulation strategy when they expected it to be effective in regulating their anxiety and they often based this on previous experiences of implementing strategies:

Participant 4: if I attempt to think about it positively or neutrally, I end thinking about the worst possible outcome [...] it is something I've tried multiple times in situations and it has never helped so I haven't tried again in a while.

Some students evaluated the effectiveness of an emotion regulation strategy based on whether they expected to face the particular stressful situation again in the future. In such cases, avoidance was considered particularly ineffective, and therefore not a preferred option. Even students who habitually engaged in avoidance in various contexts and experienced more entrenched anxiety as a result (e.g., previously did not attend school due to anxiety), discussed the importance of considering the efficacy of a strategy based on the expected reencounter of the stressful situation:

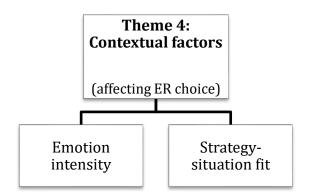
Participant 8: yes, I do this a lot with school work at this point in time (suppression of emotions and avoidance) as I think that teachers most likely aren't going to collect it in as they didn't last time. Interviewer: I see, and how often would you do this? Participant 8: I done it a lot more at the end of the 1st lockdown but I'm doing it less as now but I still do do it sometimes but I'm trying to (put) more effort this time round as I may have to do GCSEs soon.

Participant 4: I do sometimes avoid situations that I'm anxious about but I do try not to because it makes things worse the next time I have to do that thing.

Participant 2: So yes, I tend to ignore or not think about the situation [...] I fix them (my emotions) temporarily [...] But obviously ignoring things means I'm inevitably going to have to re-encounter it in the future, which is why I've been contacting my teachers to find a long-term solution.

Finally, a few students considered the long-term effectiveness of their emotion regulation choices in terms of how enduring the effects of the strategy could be in regulating their emotions and promoting good mental health and emotional wellbeing.

**Theme 4: Contextual Factors.** This theme portrayed the factors that students perceived as linked to the situation and the environment in which the regulating took place and which impacted their emotion regulation strategy options.



The **Subtheme** 'Emotion Intensity' captured students' reflections of how their emotion regulation choices were affected in contexts where they experienced high levels of anxiety. During times of high anxiety, students had fewer resources to devote to the implementation process; as a result, they often employed strategies that were less effective, and it therefore took longer to regulate their anxiety:

Participant 4: When I'm only feeling a bit anxious, they (the aforementioned strategies) come quite naturally however if I'm feeling very anxious or it's hit me out of nowhere i do need to push to try and help myself.

Participant 10: It's easier to control when there is little but when there is a lot of stress it could take a while to disperse.

Under high anxiety conditions, some students selected emotion regulation strategies which offered immediate relief and helped to moderate their anxiety, so it did not become unmanageable. This was done through disengaging from processing their emotions (e.g., through the use of avoidance or distraction), disengaging from the actual anxiety provoking situation, or by not engaging in emotion regulation altogether, even though they acknowledged that this was only effective for a limited amount of time:

Participant 8: like the morning of we were meant to go to a concert but I chose that morning that I wasn't going to go as I get too nervous [...] if I get too stressed then I will definitely avoid it like meeting with friends I have cancelled because I can't not stress about it, like I used to get very stressed at sleepovers I'd have to get my nan to pick me up and 3ish in the morning as I get really nervous.

Participant 10: I find that distracting yourself from the actual thing by doing other thinfs (things) helps a lot better if its serious.

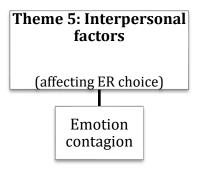
The **Subtheme** 'Strategy-Situation Fit' captured how students adapted their strategy choices depending on the situation they were faced with, including making the most of opportunities offered by certain circumstances; for example, one student who generally used avoidance in anxiety-evoking social situations discussed utilising the support of her friends instead when they were available.

Other students mentioned adjusting their emotion regulation strategy choices based on situational demands; for example, one student noted how when he was unable to rely on his usual strategy of sharing his emotions with trusted others, it was important to be flexible and utilise other available resources and strategies instead:

Participant 10: in situations like an exam hall, there is little to no way to resolve these feelings, usually talking it out helps me but I can't in that circumstance. i focus on the positive - i.e., that parts of the exam which I can complete and complete well.

Finally, a student who discussed habitually suppressing the expression of his emotions around others talked about having to change his approach during the unexpected breakout of the COVID-19 pandemic: 'especially during unprecedented I've found that some days I'm allowed to not put on a brave face and just not show my 100% for a day' (Participant 6).

Theme 5: Interpersonal factors.



The **Subtheme 'Emotion Contagion'** related to some participants' views about the effect that others' emotions and regulation choices could have on them. When asked what makes them feel better or worse, Participant 9 explained:

It's probably just everyone's mood. Because I think if someone's in a bad mood, it's going to kind of put you in a worse mood. And if someone's in a good mood, it's going to put you in a better mood. So, I think it's just kind of everyone else will kind of affect me in particular [...] like after an exam if someone's like, kind of in a happy mood, that kind of really cheer you up, and it can kind of make the whole situation feel better.

Another student further described that he often adopted the same emotion regulation strategies as his peers (co-rumination in this case); engaging in emotion regulation with peers (as opposed to alone) was viewed as beneficial as it helped to reframe some of his emotions as 'normal':

Interviewer: And when you are feeling anxious, do you look for help from others? Participant 2: I'm probably more likely to go by myself, but if a bunch of us are upset about it I sort of join in moaning [...] it's sort of nice to just moan together about it. it can make you feel like you are not alone. It makes me feel more like I'm allowed to be upset as well.

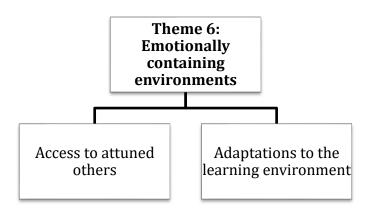
Table 12

Theme/subtheme summary for RQ4.

Theme	Subtheme	No. of participants referring to subtheme	No. of times coded
3. Individual Factors	Personal Motives	6	9
	Anticipated Effort	7	11
	Perceived Effectiveness	7	10
4. Contextual Factors	Emotion Intensity	8	11
	Strategy – Situation Fit	5	6
5. Interpersonal Factors	Emotion Contagion	2	3

4.2.3 Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety? (RQ5)

Theme 6: Emotionally Containing Environments. This theme captured students' descriptions of the importance of having attuned interaction with others, as well as having access to educational contexts which took into consideration their needs when they experience anxiety.



The **Subtheme** 'Access to Attuned Others' related to students' comments about the importance of being around others who are attentive and responsive to their emotional needs during the emotion generation and regulation process. They described 'attuned others' as individuals who empathically responded to their expressed 'worries', but who were also attentive enough to notice when students would feel anxious even when they did not verbalise this, and appropriately and sensitively still offered them emotional support. Students who discussed not verbally asking for help, still chose to be in the presence of important others when anxious:

Participant 4: I definitely try and be around others. if possible, my mum as I'm closest with her. Interviewer: And what is your mum like that makes you want to be around her when you are worried? Participant 4: she's very understanding and knows when I need to talk or just hug. she is also very patient with me and doesn't force me to talk when I'm not ready.

Participant 9: I think they, them just being really friendly and like, knowing me, so like they'd be able to tell like I am anxious or they'll be, they'll probably know the right thing to say to like calm me.

Attuned others often helped students to gain a sense of safety, soothed some of the students' symptoms of anxiety, shared the emotional load with them, gave them a 'fresh' perspective of the anxiety provoking situation and practical information about how to manage it, and even helped them normalise some of their feelings:

Participant 7: *Um, it was nice, having like, support from my friends.* So that helped... *Just kind of toned down the situation a bit, made it feel more manageable.* 

Participant 10: My grandparents were at the performance and I saw them at the end so I told them how I felt about the performance and the mistakes I made as I felt I could have done a lot better but they helped me see that it didn't matter and they still thought it sounded good.

Notably, students who had previously opened up to a trusted other but had not felt 'heard' explained that they relied less on interpersonal support following that.

The **Subtheme** 'Adaptations to the Learning Environment' relayed students' views about the importance of their needs being kept in mind when educational staff organised and managed the school and classroom environment on a day-to-day basis. A number of students talked about the teachers' role in establishing a 'comfortable' and nurturing classroom environment; it was helpful when teachers utilised interactive teaching approaches, allowed social interaction, and prioritised a friendly and relaxed atmosphere at times when academic pressures and uncertainty were high. By contrast, stricter, traditional teaching approaches were felt to have the opposite effect:

Participant 6: my teachers in classrooms, do tend to have a social and friendly environment almost describable as a family atmosphere which is something my teacher had said himself he does to help us. in this case in classrooms i do feel fine and content and able to work well. side note: hence why teacher assessed grades in the current climate will benefit me and not performing well in exams which some of my teachers are aware of and commented on that at a recent parents evening.

Participant 4: I think like allowing talking with friends does help because if I was in a really quite (quiet) class I would really over think everything and get more stressed but just not in big groups and lots of noise.

Further, some students felt more able to manage their anxiety when there was predictability in the way learning tasks were planned, and they were granted some control and independence with their learning. When teachers did not recognise and prioritise students' needs for control, calm and safety, or when the circumstances did not allow for that (e.g., during the COVID-19 breakout), this often affected students' sense of emotion controllability and anxiety levels:

Participant 3: Once I had to do a speech about a chosen topic in front of my class at school [...] I found it very stressful, I found it very hard [...] it was in the classroom and I think it would have been peaceful if the teacher put music before but instead there was like a wheel with all our names on and whoever it landed on it was there (their) go so everyone was really noisy.

Participant 7: *Um, I think my teacher gave us like a few minutes to prepare, just to like, calm down and that sort of thing, which helped.* 

Table 13

Theme/subtheme summary for RQ5.

Theme	Subtheme	No. of participants referring to subtheme	No. of times coded
6. Emotionally Containing Environments	Access to Attuned Others	10	17
	Adaptations to the Learning Environment	9	16

#### 5. Discussion

The present study aimed to examine the relationship between emotion controllability beliefs, emotion regulation, and anxiety in Year 9, 10 and 11 students in English mainstream secondary schools, and whether this relationship is mediated by emotion regulation. Underpinned by Gross' process model (2015), it further aimed to explore *how* adolescents perceive the generation and regulation of anxiety, *why* certain regulatory strategies are preferred over others, and which interpersonal processes are perceived as helpful/less helpful in the generation and regulation of anxiety.

In line with the researcher's prediction, quantitative data demonstrated that holding differing emotion controllability beliefs was associated with different types of emotion regulation strategies (RQ1). Quantitative analyses also provided evidence for the researcher's second prediction: emotion regulation is an important mechanism via which (general) emotion controllability beliefs can influence adolescent anxiety (RQ2). With regards to the qualitative arm of the study, while adolescents were able to recognise anxiety by noting its cognitive and physiological manifestations, they held negative views about its experience and regulation (RQ3). Further, interviewees portrayed a number of factors as influential in the process of selecting emotion regulation strategies: within-person factors, interpersonal factors, and factors relating to the wider context in which the emotion was generated and regulated (RQ4). Finally, adolescents noted the benefits of being surrounded by empathic others and being part of educational environments set up with consideration to their needs (RQ5).

This chapter will include a separate discussion of the qualitative and quantitative findings; research findings will be presented by research question, in relation to the conceptual framework underpinning the study, and relevant research and literature. Following this, strengths, limitations, and directions for future research will be considered, with the chapter concluding by outlining implications for practice.

# 5.1 Do adolescents who believe that they have a lot of control over their emotions use different emotion regulation strategies from adolescents who believe that they have little control over their emotions? (RQ1)

Emotion controllability beliefs and reappraisal. As predicted based on the process model (Gross, 1998b), (general and personal) emotion controllability beliefs were positively and strongly associated with reappraisal, suggesting that adolescents who believed that emotions are somewhat controllable were more likely to use reappraisal compared to their peers who believed that they have little control over their emotions. This finding adds to the body of research which demonstrates that individuals who believe that their emotions are controllable are more likely to employ strategies that regulate emotion as it is generating, such as reappraisal (De Castella et al., 2013; Ford et al., 2018; Goodman et al., 2020; Kneeland et al., 2016; Schroder et al., 2015b; Tamir et al., 2007).

Emotion controllability beliefs and suppression. Contrary to prediction, a moderate negative association between (general and personal) emotion controllability beliefs and suppression was found, indicating that adolescents who believed that they can relatively control their emotions were less likely to rely on suppression compared to adolescents who believed they do not have much control over their emotions. This challenges Gross' initial process model (1998b) which posits that beliefs that emotions can be somewhat controlled are only linked to certain emotion regulation strategies. In particular, Gross (1998b) suggests that individuals holding beliefs that they can alter their emotions more often rely on strategies aimed at the experience of emotion (such as reappraisal), whereas strategies employed after emotion has fully unfolded, which can only alter its expression, are not as appealing to them. On the other hand, individuals holding beliefs that emotions are not possible to control are expected to be less motivated to engage in emotion regulation altogether (Gross, 1998b).

Unlike the present study, past research has demonstrated that emotion controllability beliefs are not linked to suppression (Ford et al., 2018; Tamir et al., 2007). Also not in line with the current findings, in one out of their two studies, Schroder et al. (2015b) found that holding

beliefs that emotions are relatively uncontrollable was linked to using suppression less frequently than individuals who believed that emotions can be controlled. This finding should, however, be interpreted with caution as it was not replicated in their other study, which involved a more diverse sample, and may only be relevant to the small, women-only sample used in their second study. Up till now, only two studies (Goodman et al., 2020; Vuillier et al., 2021) are known to have identified similar associations to our study, therefore linking beliefs that emotions are not malleable to an increased use of suppression. While further research will be required in order to assess the degree to which emotion controllability beliefs relate to various emotion regulation strategies, the current study provides initial evidence that adolescents who believe that emotions are not possible to control, may struggle with altering their reactions to emotionally triggering events. Therefore, they may be less inclined to use strategies focused on modulating their experience of negative emotions, and instead focus on just managing the expression of their emotions by using suppression. Even though such a finding is inconsistent with the initial process model (Gross, 1998b), it may be partly explained by the extended process model (Ford & Gross, 2018), which has added that if the individual holding beliefs that emotions are uncontrollable goes past the identification stage, the strategy they select is expected to be an 'unhealthy' or less efficient one in regulating emotion.

# 5.2 Does emotion regulation mediate the relationship between emotion controllability beliefs and anxiety (RQ2)?

Emotion controllability beliefs, reappraisal and anxiety. As predicted, adolescents who believed that people can somewhat control their emotions experienced fewer symptoms of anxiety, in part because they were more likely to employ reappraisal to regulate their emotions. This is an important finding that provides initial empirical support for Gross' extended process model (2015), which proposes that different valuation systems (with emotion controllability beliefs being one of them) interact with one another leading to different pathways during the emotion regulation process. Different regulatory choices, in turn, pose different demands on the individual employing them, potentially leading to specific

physiological responses and experiences, which can, over time, have a cumulative, positive or negative effect. This finding is also in line with existing literature that demonstrates links between general emotion controllability beliefs and adolescent mental health (distress and wellbeing in De Castella et al., 2013; depression in Ford et al., 2018; anxiety and depression in college students in Schroder et al., 2015a; social and emotional adjustment in Tamir et al., 2007), through the use of emotion regulation strategies that target the experience of emotion i.e., reappraisal. While the majority of research in this area as well as the present study have mainly focused on the role of cognitive reappraisal as a mediator, Skymba and her colleagues (2020) examined the role of a different family of emotion regulation strategies (which entail disengaging from emotionally triggering situations) and dysregulation (as opposed to regulation). Interestingly, they found that adolescents who believed that people have little control over their emotions were more likely to experience severe symptoms of depression; this relationship was mediated by the use of disengagement and emotion dysregulation, providing some preliminary evidence for other antecedent-focused strategies through which beliefs that emotions are somewhat uncontrollable can predict adolescent mental health difficulties.

One study which, however, challenges the present findings should be discussed: King and dela Rosa (2019) found that the use of reappraisal did not mediate the relationship between emotion controllability beliefs and anxiety symptoms amongst college students; instead, believing that people cannot control their emotions was negatively associated with experiencing positive emotions and life satisfaction via reappraisal. Interestingly, this study was conducted in a different cultural context (Philippines) to the aforementioned studies. Research in Eastern versus Western countries demonstrates that depending on the cultural context people may hold differing values about the expression and experience of positive and negative emotions, which can in turn lead to different regulatory efforts being made depending on the emotion targeted (Ford & Mauss, 2015; Koopmann-Holm & Tsai, 2014; Miyamoto et al., 2014; Tamir & Mauss, 2011; Tsai et al., 2006). It is also worth noting that in King and dela

Rosa's study (2019) cognitive reappraisal was measured with an adapted, shortened version of the original Emotion Regulation Questionnaire (Gross & John, 2003), which may have undermined its validity and reliability; Cronbach's alpha values were not reported, so it is not clear how the measure used may have affected the findings. Given that previous research has mainly focused on mechanisms through which emotion controllability beliefs impact on depression, often without utilising appropriate measures, and focused on generally older samples, the present study constitutes the first known study to provide initial evidence for the link between emotion controllability beliefs and adolescent anxiety through reappraisal in a Western-European context.

The synthesis of emotion controllability beliefs, the use of reappraisal and experience of anxiety is likely to be of particular relevance for students in educational settings. Not being able to regulate anxiety in the classroom context has been found to significantly compromise attention and memory, executive functions in general, and student academic performance (Chamberlain et al., 2011; Salend, 2011). In turn, this can negatively influence self-confidence in oneself as learner, it can contribute to lack of motivation and effort with school work, which can over time contribute to underachievement in a range of areas, negative attitudes towards school, absenteeism and earlier school leaving, and adverse future outcomes (Chamberlain et al., 2011; Cizek & Burg, 2006; Hanie & Stanard, 2009; Howard, 2020; Huberty, 2010; Kouzma & Kennedy, 2004; Putwain & Daniels, 2010; Salend, 2011). Students with significant difficulties regulating anxiety may also present as 'disruptive' in the classroom, with social and/or behavioural difficulties, and therefore can be misunderstood by educational staff as unmotivated, not interested in learning or as lacking in cognitive skills and abilities compared to peers (Cassady, 2010; Huberty, 2010). Furthermore, not being able to regulate anxiety in social situations in school may contribute to difficulties navigating social relationships such as resolving peer conflict when this arises, social withdrawal and isolation, feelings of loneliness, and worse emotional and psychological health outcomes in the future compared to nonanxious peers, or peers better able to regulate their anxiety (Cavanaugh & Buehler, 2015; Hanie & Stanard, 2009; Lasgaard et al., 2011; Salend, 2011; Vanhalst et al., 2013).

Schools play an important role in promoting not only learning and academic achievement but also the emotional and mental health of their students (Weare, 2015), as also highlighted in a number of governmental policies over the years (e.g., the National Service Framework for Children, Young People and Maternity Services [DoH, 2004]; the Targeted Mental Health in Schools initiatives, [Department for Children, Schools and Families, 2008]; the Green Paper 'Transforming Children and Young People's Mental Health Provision', [DfE; DoH, 2017]). In acknowledgement of the close link between learning, emotion regulation in the classroom and mental health, schools' responsibilities in relation to promoting students' emotional and psychological health are expanding, and they are expected to work preventatively as well as reactively (delivering interventions to support students) (Loades & Mastroyannopoulou, 2010). Schools may, therefore, be in a key position to address students' beliefs about whether they can control their emotions or not, so that they can better regulate arising anxiety, and set them on a healthy emotion regulation pathway, with potentially more positive mental health outcomes in the future (also refer to section 5.7 'Implications for Practice' for specific recommendations regarding emotion controllability beliefs, emotion regulation and anxiety interventions and how this could be implemented in educational settings).

General vs. personal emotion controllability beliefs. As expected, results from the hierarchical regression analyses showed that adolescents' personal emotion controllability beliefs were a stronger predictor of anxiety than general emotion controllability beliefs; personal emotion controllability beliefs were found to consistently explain unique variance over and above general emotion controllability beliefs, which is consistent with previous research (De Castella et al., 2013). Interestingly, however this was not the case when using these two measures to examine the indirect effect of reappraisal on anxiety. Instead, the use of reappraisal only mediated the relationship between general (and not personal) emotion

controllability beliefs and anxiety, which is in contrast with findings from DeCastella et al's study (2013). It should be noted that in the aforementioned study participants were much older (17 - 29 years old), which may have meant that their personal emotion controllability beliefs were perhaps more settled compared to students in mid-adolescence in the present study. Despite utilising the most widely used emotion controllability beliefs measure in the present study, issues relating to its lack of clarity regarding whether specific items ask about one's control over the experience or the expression of emotion should also be acknowledged; referring to one over the other would have different implications for the selection of emotion regulation strategies (Tamir et al., 2007). Furthermore, according to Becerra et al. (2020), measures about emotion beliefs need to meet certain requirements including sufficiently capturing the full spread of the construct; to do so they propose that general information about the individuals' emotion controllability beliefs should be captured alongside assessing emotion controllability beliefs about the 'valence' of the specific emotion of interest. In their review of measures, they conclude that emotion controllability beliefs scales currently available do not meet these requirements adequately, and propose further validation of a newly introduced measure with samples other than adult ones. While this was not within the scope of the present research, there is a need to further our understanding of what the emotion controllability beliefs construct encompasses, and accordingly review and update the tools used for assessing this.

Emotion controllability beliefs, suppression and anxiety. While no indirect effect between (general and personal) emotion controllability beliefs and anxiety via suppression was found, this is consistent with findings from Ford at al. (2018) who across three studies found that expressive suppression did not mediate the relationship between emotion controllability beliefs and depression. This indicates that emotion controllability beliefs may determine what emotion regulation strategies adolescents get to use over time, therefore gaining confidence and competence in implementing some strategies more than others (e.g., with students who believe they have little control over their emotions missing out on opportunities to practise using strategies which target the experience of emotion). On the other

hand, as discussed above, the lack of support for suppression as a mediator in the literature could also be attributed to the emotion controllability beliefs scale possibly measuring control over the experience (rather than expression) of emotion, making it more likely that emotion controllability beliefs are associated with emotion regulation strategies focused on modulating emotional experience (Tamir et al., 2007). Studies which have not found suppression to be a mediator have used either the general or personal emotion controllability beliefs measure (Ford et al., 2018), therefore in order to be able to draw more definite conclusions about the role of emotion controllability beliefs on emotion regulation strategy selection, further research utilising a more valid measure of the emotion controllability beliefs construct is needed.

# 5.3 How do adolescents perceive the generation and regulation of anxiety? (RQ3)

#### 5.3.1 The Identification of Anxiety

All interviewees were able to recognise when they would start to feel anxious by noticing signs of physiological arousal and unhelpful thoughts in relation to the anxiety-provoking situation. The physiological manifestations of anxiety described, while slightly different for each student, involved bodily sensations commonly experienced when the body is getting ready to fight or flight in situations perceived as threatening to one's safety. Anxiety is a reaction generated from the brain when an individual is faced with a perceived threatening situation, so that they can act and avoid danger (Beesdo et al., 2009; Pine et al., 2009). Physiological signs of anxiety can be attributed to the activation of the autonomic nervous system (Alkozei et al., 2015; Kossowsky et al., 2012; Vickers & Williams, 2007), while at a cognitive level a bias to overly attend to threat-related stimuli has been also observed (Abend et al., 2018; Dudeney et al., 2015; Klein et al., 2018; Puliafico & Kendall, 2006). Students described thinking of the worst possible outcome of a given situation and while upon reflection they were able to recognise that their thoughts at the time were perhaps not as rational, in the moment they found it hard to detach themselves from or reframe those unhelpful thoughts. According to Eysenck (1997), 'attentional bias' operates on multiple levels; the individual demonstrates greater vigilance in terms of looking out for potential threats, presents with difficulties focusing their attention on one thing as a result of constantly scanning the environment for threat-related information, and finally, gets overtly focused on the threat-related stimulus once this has been identified, ignoring other important aspects of the situation.

The specific cognitive and physiological components involved in anxiety have been also highlighted in Stallard's conceptualisation of anxiety (2009), as discussed in Chapter 2. While relevant research indicates that adolescents are more often aware of bodily symptoms and behavioural manifestations than the cognitive processes underpinning anxiety (Beesdo et al., 2009; Duchesne et al., 2008; Garland, 2001), evidence from the present study indicated that adolescents were able to identify 'irrational thoughts' when they were calm and regulated. This may be due to the interviewees being slightly older than samples included in the aforementioned studies (mid- versus early-adolescence). Furthermore, the participants in the current study were given the option to talk about feelings of anxiety in a way that felt safest and most comfortable to them (telephone or WhatsApp interviews) which may have facilitated a more in-depth exploration of their experiences. Findings of the current research, therefore, indicate that alongside standardised anxiety measures teachers, EPs, and other relevant professionals may benefit from utilising creative, non-threatening approaches to more fully capture students' symptoms of anxiety.

# 5.3.2 Self-stigma

While students were self-aware and able to identify anxiety, which according to Gross' model (2015) may mean that they would be more likely to attempt to regulate it, their understanding and conceptualisations of anxiety were limited and often negatively charged. Instead of viewing anxiety as a normative response to issues faced during this time (e.g., increasing academic demands, changes in social roles and relationships), which is often shared amongst adolescents, the experience of anxiety was perceived as shameful and non-deserving the attention of others, perhaps indicating an internalisation of stereotypes about mental health difficulties. Research has demonstrated that limited knowledge about mental health, perceived stigma, loneliness, and social isolation are all associated with help-

avoidance behaviours and not accessing support when this is needed (Andrade et al., 2014; Children's Commissioner, 2017; Corrigan, 2004; Danneel et al., 2020; Hutten et al., 2021). Indeed, a number of students noted that seeking support was their absolute last resort with one participant characteristically stating: "When I first contacted my teachers, it was when I was at a really low point and nothing was making me feel better. I don't ask for help when I'm feeling kind of okay [...] it's not a valid reason". Similar were the findings of a UK-based survey conducted with young people aged 13 – 25 during the pandemic, which uncovered feelings of shame for needing support when support availability was limited, and concerns about others changing how they would view them if they were to ask for support (Young Minds, 2021).

A number of interviewees explained that the expression of anxiety could potentially harm their 'image' and status within different peer groups. Adolescence is indeed a critical time for the formation of one's personal identity and sense of self (Chen, 2019; Frant, 2016); in turn, during this time identity and self-image can be closely linked to and defined by peer feedback, and peer group membership (Larson et al., 2002; Sussman et al., 2007; Warren & Sroufe, 2004). While such developmental factors are important to acknowledge, the context of the pandemic and associated difficulties accessing support should also be considered. Factors identified in the Young Minds survey (2021) as contributing to stigma about seeking and therefore receiving help included: lack of teaching about mental health and inconsistencies in the mental health support offered in schools; different means of receiving support during lockdown (e.g. online while at home which was associated with concerns from children and young people about their privacy); difficulties accessing mental health services, or having to wait for a long period of time (following initial assessment) due to services being overstretched at the time. The extended process model (Gross, 2015) stresses the importance of 'valuation' in the emotion regulation process: whether incoming emotional-related stimuli is assessed as "good or bad" for the individual. Holding negative views about anxiety and mental health likely encourages the valuation that anxiety is a 'bad-for-me' emotion and a maladaptive response to any given situation; in turn, perceived lack of timely support likely influences what

strategies the individual opts for in order to regulate anxiety, being more likely to go it alone. There is, therefore, a need to raise awareness and 'normalise' anxiety, so that adolescents are enabled to talk about their experiences and seek support when they need it; this work will, however, not only need to be targeted at the children and young people level but also at the school system, the family and even at the community level in order to be most effective (Weare, 2015; Weare & Nind, 2011, 2011).

# 5.4 What reasons do adolescents give for using certain emotion regulation strategies more frequently than others? (RQ4)

#### 5.4.1 Motivation

According to the extended process model, an individual's valuation system gets activated when an emotionally triggering event takes place, it is perceived by the individual and evaluated in line with their desired state of the world (e.g., a certain goal). Motivated to align their desired state of the world with their perception of it, the individual acts, generating an emotional response (Ford and Gross, 2018). In line with Gross' theorising (2015), students in the present study made reference to motivational factors influencing the initiation of emotion regulation. In particular, adolescents noted various types of motives driving their regulatory choices when modulating anxiety: wanting to feel better, and therefore opting for strategies which shifted their attention away from stress-related stimuli; wanting to perform well within a given task (e.g., exams), and so utilising strategies which helped them persevere, and focus on the task.

Previous research, despite being limited, also provides evidence for motives in emotion regulation. In an experience sampling study, Augustine et al. (2010) found that 50% of the time individuals' regulatory efforts were underpinned by wanting to feel good. Furthermore, in an experiment where individuals were led to experience sadness and think that they will face a task involving analytical thinking, they demonstrated limited motivation to change that emotion, as they associated it with improved focus within such a task; instead,

individuals who expected to engage in a task requiring imagination and creativity were keener to experience positive emotions, and were therefore more likely to opt for listening to a happy song to counterbalance the feelings of sadness (Cohen & Andrade, 2004). In another study, individuals assessed as 'psychologically healthy' were asked to indicate in a diary what emotions they preferred to feel when faced with different situational demands for a period of five days; they were found willing to switch between different emotions depending on the instrumental motive they felt these emotions would serve best (Kim et al., 2015). As different strategies can lead to different physiological experiences (Gross, 1998b), the current findings together with previous research add to the process model that satisfying different motives, may lead to different responses and outcomes, therefore potentially influencing the whole course of emotion regulation.

While the extended process model has only begun to consider the motivational elements of emotion regulation, in a review of the emotion literature, Tamir (2016) suggested that various types of motives may underpin emotion regulation: ranging from 'hedonic motives', which concern the immediate experience of emotion (wanting to feel good or reduce 'pain'), to more sophisticated motives, which influence both the experience and expression of emotion, and which may be associated with longer-term benefits for the individual ('instrumental' motives, including 'performance', 'eudemonic', 'epistemic' motives etc.) (p.201). The present findings are, therefore, in line with Tamir's classification (2016). While the participants in the current study only reflected on one type of instrumental motive ('performance' motive), this is likely reflective of the central role of academic achievement at this stage of their life (Vaghi & Emmott, 2018).

#### 5.4.2 Cost Evaluation

While adolescents' accounts indicated that they regulated their anxiety to satisfy different motives, theories of motivation also highlight the importance of considering 'what' motivates an individual to engage in certain behaviours (Atkinson, 1957; Gollwitzer, 1990). Students indicated that they were often motivated to employ less effort intensive regulatory

options over strategies perceived as more 'costly'. Kinner et al. (2017) have demonstrated that emotion regulation is a process which requires cognitive resources in order to be generated, and cognitive effort to be exerted throughout its course. A number of students particularly referred to reappraisal as harder to generate and apply compared to distraction and disengagement. Milyavsky et al. (2019) found that emotion regulation strategies involving processing of emotional information (e.g., reappraisal) were more cognitively demanding and, therefore, less frequently used than strategies focused on shifting attention away from emotional stimuli. Specifically, reappraisal was found to require the highest effort due to involving processing at multiple stages: processing of initial stimuli early on, while later on reprocessing it to convert it to emotionally neutral information. Interestingly, when the researchers made the employment of reappraisal easier (e.g., by providing simplified instructions), participants were more likely to apply it than distraction.

Notably, in two studies that provided participants with emotional working memory training, it was found that their frontoparietal effort network was activated, which contributed to increased perseverance when faced with a challenging task and extended engagement in emotion regulation processes (Engen & Kanske, 2013; Schweizer et al., 2013). It is, therefore, possible that generating and applying previously-practiced strategies requires less working memory, which may in turn allow individuals to engage in emotion regulation for longer without consuming a high level of cognitive resources. This may be one of the reasons why interviewees noted that implementing well-practised strategies was easier, and therefore often preferred applying these in future regulatory attempts rather than switching to a different, less familiar strategy. Suri et al. (2015) found that when individuals were presented with negative stimuli, they were more likely to select their 'go-to' regulatory strategy and this choice was informed by how difficult they thought changing their 'default' strategy for a different one would be; only when this was not an option individuals considered other strategies. These findings raise the salient point that if adolescents only get to use certain, less costly strategies, they may be less skilled in using other, perhaps more effective strategies.

### 5.4.3 Contextual Sensitivity

A number of adolescents in the present study discussed the importance of switching between different emotion regulation strategies based on the opportunities and demands within a given context. Research demonstrates that being able to effectively match strategies to the context has been associated with experiencing higher levels of regulatory success, and therefore better mental health in the long term (Bonanno et al., 2004; Gupta & Bonanno, 2011). Notably, what enables emotion regulation flexibility seems to be having a rich repertoire of emotion regulation strategies to select from, therefore with individuals less skilled in using a range of both healthy and unhealthy strategies being less able to adapt in line with contextual demands (Aldao et al., 2014a; Aldao & Nolen-Hoeksema, 2012a; Bonanno et al., 2004; Gupta & Bonanno, 2011). Interestingly, one of the interviewees who previously experienced emotionally-based school non-attendance (EBSNA), which has been associated with emotion regulation difficulties and intense anxiety (Thambirajah et al., 2008), noted that instead of resorting to their default avoidance response, in stress-provoking contexts where their friend was available, they would utilise their support to regulate. When, however, interpersonal support strategies and avoidance were in certain situations not an option, the student discussed significant difficulties regulating anxiety. While the aim of the present study was not to examine emotion regulation flexibility in adolescents with emotion regulation difficulties and mental health needs, future research may benefit from investigating emotion regulation choices in this vulnerable population. Nevertheless, it seems logical to assume that examining the range of strategies that the individual has at their disposal in a given context may be important for understanding why they chose one strategy over another.

In line with the process model (Gross, 2015), which conceptualises valuation systems (with emotions representing the activity of one of them) as evolving over time and changing 'form' based on prior experiences, interviewees spoke about often being guided in their emotion regulation choices by the effectiveness of strategies used previously. It could, however, be argued that basing emotion regulation selection on experiences of emotions

generated and regulated under different circumstances may not be enough to make an informed choice, and specific contextual factors may also need to be taken into consideration (Sheppes et al., 2011). Specifically at times when 'uncontrollable' levels of anxiety were experienced, students felt that the effort required to engage in emotion regulation was increased, and this often had implications for the strategies they could 'afford' to use. As demonstrated over three experiments by Milyavsky et al. (2019), under high emotional intensity conditions cognitive control demands can be particularly high; this, in turn, may negatively impact the availability of mental resources, making less cognitively demanding emotion regulation options more appealing. Possibly in an attempt to conserve cognitive energy during highly stressful times, students noted regulatory preferences which often involved avoidance and offered temporary relief. These findings are in line with Sheppes et al.'s (2011, 2012) and Sheepes and Levin's (2013) laboratory studies which showed that in high-emotional-intensity situations psychologically healthy individuals were more likely to employ distraction, whereas in lower intensity conditions they tended to rely on reappraisal. More recently, a negative relationship between the use of reappraisal and high levels of emotion intensity was also detected in a natural setting (Wilms et al., 2020). The current study builds on these preliminary research findings by (for the first time) directly capturing adolescent views on emotion regulation choices. Further, the current findings expand on the process model by highlighting that apart from evaluating the type of emotion as 'good or bad for me' (Gross, 2015), individuals may also evaluate the intensity of the 'incoming' emotion, which may in turn have important implications for the regulatory path (low vs high effort) preferred.

Some students further assessed emotion regulation strategy effort in relation to whether they expected to re-encounter anxiety triggering stimuli in the future. When they expected to re-encounter a stress provoking situation (e.g., Maths lesson), they viewed 'effortful' strategies (e.g., reappraisal) more favourably as they felt these could lead to more favourable outcomes in the long run. This is in line with findings from Ortner et al.'s (2018) studies which demonstrated a significant link between strategy selection and the potential

future outcomes related to that decision; in particular, individuals were found more likely to opt for healthy emotion regulation strategies such as reappraisal over unhealthy ones (e.g., disengagement), when they took into consideration the potential long-term outcomes of implementing these. Furthermore, in a systematic literature review by Matthews et al. (2021), a relationship between expecting to face a certain task again in the future and employing strategies which involve processing of emotional stimuli was demonstrated in 12 studies. Being able to reflect on the temporal effects of strategies early on in the emotion regulation process may, therefore, not only influence the selection, but also the implementation stage of emotion regulation (by persisting with the strategy even if it's effortful).

#### 5.4.4 Peer Influences

The role of others in shaping students' emotional experiences and emotion regulation choices was an important feature of the thematic analysis. Students reflected that when peers openly expressed their emotions during interactional exchanges, these were often 'transferred' on to them. The process of transference of one's emotional state to another through verbal or non-verbal contact has been referred to as emotion contagion (EC) (Hatfield et al., 1994). It is thought that the effect of EC is likely stronger, the more salient the relation between individuals is (Bastiampillai et al., 2013). Unsurprisingly, EC in the present study was discussed as operating within the peer (rather than teacher or parent) group context. Adolescence is indeed a time when peer relationships become increasingly influential (Foulkes & Blakemore, 2016; Nickerson & Nagle, 2005), therefore EC may be especially powerful among close peers (Dishion & Tipsord, 2011). This is in line with findings from a study by Block and Heyes (2020), which utilised an adapted daily diaries method and demonstrated consistency of emotions experienced between adolescent peer groups over a period of time.

Apart from the emotion generative process, peer influences also seemed to impact students' regulatory choices. In an experimental dyadic study examining the contagiousness of emotion regulation choices, Oveis et al. (2020) found that when an individual employed

cognitive reappraisal in the presence of another, this also had a positive effect on the regulation levels of the other and in extension, improved their performance in a shared task. According to Bandura's social cognitive theory (2001), individuals learn from each other's behaviour which can contribute to the adoption of behaviours similar to their peer group, when they have been exposed to these within their social environment. Research in this area has demonstrated that individuals may adopt healthy as well as unhealthy emotion regulation and coping strategies following peer modelling (Bahr et al., 2005; Gross & John, 2003; Hasking et al., 2017; Salvy et al., 2012); this seems to be particularly common amongst adolescents compared to other age groups (Swannell et al., 2014). Such findings highlight the oftenoverlooked role of the social environment in emotion regulation. According to Gross (2015), valuation systems impacting on the generation and regulation of emotions operate within person. The current findings, however, indicated that adolescents' valuations may also operate inter-personally, with the emotion generation process being influenced by the presence of a salient peer group, and emotion regulation being influenced by peers' regulatory choices.

# 5.5 Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety? (RQ5)

# 5.5.1 Recruiting Support from Empathic Others

Students discussed the benefits of being around others who could recognise the type of support they needed, and actively and empathically offered them such support. More specifically, characteristics of others discussed included being attentive to verbal and nonverbal cues of anxiety and wanting support, being 'available' ('smiling and being friendly'), instead of assuming checking with the student what they needed help with and adjusting their response accordingly. This way of interacting with others largely fits under the principles of attunement, which include various stages for effectively tuning into another's emotional experience (being attentive, encouraging initiatives, receiving initiatives, developing attuned interactions, guiding and deepening discussion) (Cubeddu & MacKay, 2017; Kennedy et al.,

2011). The principles of attunement have been established as part of an intervention focused on supporting parents to build positive and empathic relationships with their child. Utilising these principles during interactions has been found effective in promoting meaningful parent-child communication and establishing secure attachments in various meta-analyses (Bakermans-Kranenburg et al., 2003; Fukkink, 2008; Juffer et al., 2008). While research has often focused on the application of attunement principles within relationships in early childhood, the present findings indicate that utilising such an approach within interactions with adolescents when they are experiencing and regulating anxiety may also be helpful.

Students who had accessed attuned emotional support from others described experiencing various benefits throughout the emotion regulation process: being able to regulate some of the physiological responses linked to anxiety (identification and selection stage), having more practical strategies at hand during the stress provoking situation (selection and implementation stage), and generally feeling better equipped and more confident in their emotion regulation skills (implementation and monitoring stage). Unsurprisingly, previous research examining the effects of being 'received' by an important other has demonstrated similar findings including a reduction in 'fight or flight' responses and physiological symptoms of stress (Beckes & Coan, 2011); an increase in gratification brain signals following non-verbal expressions of empathy from another (Klucharev et al., 2009; Zaki et al., 2011); and even, reappraisal of the emotional stimuli as less threatening, and reevaluation of one's available resources to deal with the stress-provoking situation (Coan & Sbarra, 2015; Zaki & Williams, 2013). Finally, empathic responses are thought to satisfy the individual's innate need for connection, and can contribute towards building positive relationships; having access to caring and supportive relationships has been, in turn, associated with an increased likelihood of utilising interpersonal support when experiencing distress again in the future (Lakey & Orehek, 2011; McPherson et al., 2001; Rimé, 2009).

Indeed, students who had received effective support from an attuned other described being more inclined to utilise their support again, whereas students who had sought

interpersonal support and had not felt 'heard' described being more reluctant to rely on interpersonal processes in the future. Similar were the findings of an experimental study by Williams et al. (2018). According to Zaki and Williams (2013), interpersonal processes may require a specific response from another (response-dependent) or may not rely on the other to reply to an individual's regulatory attempt in a certain manner (response-independent). The current findings indicate that in order for adolescents to make use of interpersonal resources they may benefit from others responding to them in an empathic, attuned manner when they approach them. At the same time, the way that others 'receive' them may influence how adolescents evaluate interpersonal processes during the emotion regulation process, which may in turn impact all stages of the emotion regulation process: during the identification stage, adolescents with positive experiences and views of interpersonal processes may decide to be in the presence of others potentially finding it easier to regulate some of the physiological and cognitive elements of anxiety; during the selection stage, they may discuss the appropriateness of strategies with another; during the implementation stage, if they lack confidence or experience implementing the suggested emotion regulation strategy they may seek the support of another to apply the strategy; and finally, when monitoring success, they may be more likely to reflect with others and plan what to do next if regulation has not been successful.

# 5.5.2 The Need for Whole-class Support

Students highlighted the importance of school staff making adaptations to the classroom and school environment in response to their needs. They found that teachers who established a relaxed, interactive, and caring classroom atmosphere helped them remain calm at times when academic pressures were high. Holding the students' needs in mind when planning lessons, and making adjustments to the classroom or exam hall set-up in response to students experiencing anxiety had a 'containing' effect, making students feel held in mind, less alone, and better able to regulate anxiety. According to Bion (1962), containment involves an exchange between individuals where a safe space is created to 'hold' the other's emotions,

which in turn generates feelings of calmness. Promoting connectedness and emotional 'holding' in the learning context has been found beneficial in various studies (e.g., Boorn et al., 2010). Doyle (2003) however demonstrated that this alone may not be enough, and practical changes to the classroom and structure of the school day which reinforce consistency, calm, and nurture are also needed. The importance of utilising creative and flexible teaching approaches in response to children and young people's needs, and promoting mental health and wellbeing at the same time as focusing on learning has been also highlighted in the Good Childhood Report (The Children's Society, 2021). Despite that, the UK educational context has been over the years criticised for placing an unreasonably high focus on grades and performance, which in turn has been linked to lower levels of satisfaction and emotional wellbeing (Pople et al., 2015).

While it is important to acknowledge the secondary school context, to gain a fuller understanding of students' preferences in relation to accessing interpersonal resources, developmental factors should also be given due attention. Research has shown that individuals who often utilise interpersonal strategies tend to be direct and 'emotionally expressive' (Williams et al., 2018, p.224). Adolescence, however, is a time when one may become more concerned with their self-image and how others, especially peers, view them (Larson et al., 2002; Sussman et al., 2007). Especially with regards to the sample of adolescents in the present study, as discussed in Section 5.3.2, they often held stigmatising beliefs about the experience and expression of anxiety, which may have further impacted how expressive they would be about their needs and requiring emotion regulation support from others. Despite research demonstrating increasing expectations for autonomy and independence during adolescence (Vaghi & Emmott, 2018), the present findings indicate that students continue to benefit from accessing interpersonal strategies at this stage of life but perhaps prefer for this to be done more indirectly and discreetly (e.g., through whole-class and whole-school adaptations).

### 5.6 Strengths and Limitations of This Research

This research has provided a novel contribution to the literature; while knowledge in the area of emotion controllability beliefs has been largely informed by cross-sectional, longitudinal or laboratory-based studies, the present study is the first known study to examine the relationship between emotion controllability beliefs, emotion regulation, and adolescent anxiety adopting a mixed-methods design. Data collection utilising quantitative and qualitative methods enabled a more in-depth understanding of the complex concept of emotion regulation, and adolescents' accounts uncovered multiple factors influencing their emotion regulation choices including individual motives, perceived effort and effectiveness of different strategies, contextual demands, and interpersonal factors. The qualitative findings significantly add to previous sparse and mainly experimental research (Aldao et al., 2015; Bonanno et al., 2004; Bonanno & Burton, 2013; Kneeland, Nolen-Hoeksema, et al., 2016; Sheppes & Levin, 2013) examining the impact of contextual factors on emotion regulation.

The limited research which has examined emotion regulation choices in youth samples has often examined these independently of interpersonal processes, despite Gross (2015) positing that emotion regulation usually occurs within the social context, therefore likely being influenced by it. By gaining adolescents' insights into helpful/hindering interpersonal processes, the present research expanded on Gross' model (2015) highlighting the importance of having access to empathic others and whole-class support systems for progression through each stage of the emotion regulation process. The researcher has, therefore, adopted a framework which examines within-person processes and put it 'into context' by exploring how emotion regulation operates in real life, which is at the heart of EP practice (Wicks, 2013). The present research, however, also has several limitations which need acknowledging.

**Sample.** As with a lot of real-world research, time limitations, and further complications linked to the COVID-19 pandemic, had to be taken into consideration, and so a convenience sampling procedure was followed. While a number of schools from different parts of England took part in the quantitative arm of the study, the present study only collected limited

demographic data (age and gender) and therefore it is not possible to know how generalisable the findings are to students in other parts of England who did not take part or were under-represented in the study, or more importantly, to children and young people from varied cultural or socio-economic backgrounds. It should, however, be noted that in a recent insight analysis of the emotion controllability beliefs literature, demographic characteristics were not found to be significantly linked to neither emotion controllability beliefs nor mental health outcomes amongst youth (Somerville et al., 2021). The voluntary nature of the data collection may have also impacted the sample homogeneity, with students with experiences of anxiety and mental health needs potentially being more motivated to take part in the study. To minimise the effect of this, the sample employed for the interviews consisted of students with diverse characteristics (i.e., a mixture of students scoring high and low in the different questionnaires of the study). While claims regarding the representativeness of the sample cannot be made, considerable consistency between the questionnaire and interviews responses was present, and quantitative findings were largely in line with previous research, which provide some confidence in the results of the present study.

Methods. The remote data collection methods employed meant that students needed to have access to a computer and internet as well as feel confident in using technology in order to complete the questionnaires and communicate their views when invited to an interview (Grootswagers, 2020; Shields et al., 2021). To ensure no one was limited in their responses or excluded from research due to methodological factors, provisional arrangements in relation to ensuring access to a computer in school were made, and SENCOs and parents were alerted to directly contact the researcher if they felt students would require access to differentiated materials. While students who participated in the interviews provided elaborate answers likely demonstrating good technological literacy, the remote nature of the study meant that it was not entirely possible to monitor students' attention, motivation, engagement, or control for the effects of social desirability bias (Rhodes et al., 2020). With the hope that participants would provide honest responses, the anonymous nature of the study was

highlighted, while to minimise participation fatigue interviewees were encouraged to take regular breaks (Fargas-Malet et al., 2010), even though this was not possible to monitor. Finally, it should be acknowledged that students' comfort, and response honesty and insight may have been compromised in cases where they did not have access to a private space when engaging with questionnaires and/or interviews (Shapiro et al., 2013; Varao-Sousa et al., 2018). While this was encouraged, especially within interviews, it was not possible for the researcher to check whether the students' home set-up enabled that. Although the intimacy of information shared can be to an extent indicative of a level of comfort in their environment, with current data pointing to approximately 31% of children and young people in the UK living under conditions of poverty, and therefore in crammed households (Francis-Devine, 2022), future studies will need to make explicit considerations about how lack of privacy may impact children and young people's responses under remote research conditions.

It should be acknowledged that due to the interview schedule being tightly related to Gross' process model of emotion regulation, a number of questions were constructed to be closed (as opposed to open-ended). This may have led to bias in the responses provided, and it may have to an extent limited the representation of participants' own thoughts, opinions and comments. Further, while the sample consisted of adolescents who are more likely to have developed beliefs about emotions and have begun to more independently emotionally regulate compared to children, the interview questions relied on a level of insight into one's internal states and on the ability to reflect on one's regulatory efforts. The majority of interviewees gave detailed and lengthy responses to interview questions; however, it is not possible to know whether all participants interviewed were able to equally access and reflect on such a complex topic, therefore to an extent limiting the transferability and validity of the qualitative findings.

Analyses. While mediational analyses allow for some causal inferences to be made (Pieters, 2017; Warner, 2020), due to not controlling for confounding variables, caution must be applied when drawing conclusions from the mediational findings of the study. Emotion controllability beliefs are likely a multiply-determined construct, and likely so is anxiety (e.g.,

see Keles et al., 2020), whereas moderators may also be present (Thomas & Nettelbeck, 2014). Further, due to limited timescales, the present study did not include any longitudinal data, therefore conclusions in relation to the direction of the relationships uncovered cannot be drawn (Frey, 2018). Some of the few studies examining mechanisms through which emotion controllability beliefs and depression are linked have utilised more complex, longitudinal designs (De Castella et al., 2013; Ford et al., 2018). Similar designs could also be used in future research in order to be able to make more confident claims about the relationship between emotion controllability beliefs, emotion regulation, and anxiety in adolescent samples.

Despite the large amount of interview data gathered, there are limitations in relation to the analyses used, which need acknowledging. TA has been criticised for a lack of depth during the coding and theme analysis stages; while focusing on patterns in the data can give more flexibility to the researcher, at the same time it may mean that interpretative thinking and deeper engagement with the data is not a focus making it possible that the researcher misses key themes and is driven by their own biases (Willig, 2013). To minimise the effects of this, the researcher systematically followed guidelines for conducting TA (Braun & Clarke, 2013; Clarke & Braun, 2017), accessed supervision, and reflected within various contexts about the development of themes (e.g., in a reflexive journal and with peers), and kept a log of evidence disconfirming themes where these existed. However, it still is possible that the validity of the findings was to an extent compromised.

Future research could examine the relationships between emotion controllability beliefs, emotion regulation, and adolescent anxiety in larger, and more varied samples. As one of the current study's main aims was to understand the mechanisms through which emotion controllability beliefs influence anxiety, the researcher did not investigate factors which may impact emotion controllability beliefs in the first place. Qualitative findings from the present study demonstrated the role of the social environment on the emotions that adolescents experienced and the emotion regulation strategies they selected. Theory

(Bandura, 2001) and research (Hasking et al., 2017; Kinard & Webster, 2012; Lozada et al., 2016) have indicated that children and young people likely adapt their worldviews and engage in certain behaviours following observation of their social environment. To the researcher's knowledge, studies examining the role of the social environment on the formation of emotion controllability beliefs is particularly limited. Understanding the factors which shape emotion controllability beliefs can promote effective intervention during adolescence, a time when emotion controllability beliefs are not as solidified as they are in adulthood, therefore promoting more positive outcomes for this population later on. There is therefore value in future research exploring how emotion controllability beliefs are formed.

# 5.7 Implications for Practice

Even though the present research study consisted of a relatively small, English-based, mainstream student sample limiting generalisability and transferability of the findings to populations with different characteristics, we can cautiously postulate some implications for practice.

#### 5.7.1 Emotion Controllability Beliefs and Emotion Regulation Intervention

In line with a growing body of research in this area, the present study has demonstrated the catalytic role of holding different emotion controllability beliefs on emotion regulation choices and adolescent anxiety. Given that employing effective versus less effective emotion regulation strategies may depend on whether an individual believes that they can control their emotions or not, emotion controllability beliefs may constitute an impactful intervention target. While research focusing on changing one's emotion controllability beliefs is still in early stages, the few preliminary studies in this area have all provided promising evidence for emotion regulation, mental health (Kneeland, Nolen-Hoeksema, et al., 2016; Rovenpor & Isbell, 2018), and even school wellbeing (Smith et al., 2018). As emotion controllability beliefs are thought to not be fully solidified or as deep-rooted in childhood and adolescence compared to adulthood (Ford et al., 2018), and considering the strong associations between adolescent

and adult mental health (Kessler et al., 2005), targeting emotion controllability beliefs early on in life may prove especially fruitful for future outcomes. This may have implications for the promotion of adolescent mental health in general, but it may also be especially important for those young people who struggle with emotion regulation. With recent government policies and initiatives defining a clear role for schools in the promotion of mental health (Department for Education and Skills [DfES], 2001; DoH & DfE, 2017; DoH, 2014), and growing evidence about the effectiveness of school-based mental health support (Pettitt, 2003; Vostanis et al., 2013; Weare & Nind, 2011), EPs are in a unique position to have conversations about the 'how' of mental health interventions with school leaders. By discussing latest research evidence about active mental health ingredients in consultations and planning meetings with SENCOs, headteachers, teachers, and mental health leads, EPs can enhance school initiatives for the promotion of healthy emotion regulation and mental health. EPs could further work in partnership with teachers to develop their Personal, Health, Social and Economic Education (PSHE) curriculum to include topics focused on the malleability of emotions.

Students discussed the importance of engaging in attainable and efficacious emotion regulation. In practice, this meant that they preferred to employ strategies they perceived as requiring low effort (especially in highly emotionally demanding contexts), and which they viewed as easily accessible in the regulatory contexts they were in. Students, therefore, described often 'sticking' with their usual emotion regulation strategies, and being reluctant to employ other strategies, or strategies they had not previously used, likely driven by a sense of low self-efficacy in applying less familiar strategies. Having a broad repertoire of emotion regulation strategies has been associated with switching between strategies more flexibly when contextual demands require so, which has been in turn linked to more effective emotion regulation, and better mental health (Aldao et al., 2015; Bonanno et al., 2004; Bonanno & Burton, 2013; Gupta & Bonanno, 2011). Therefore, there may be value in supporting adolescents to expand their emotion regulation strategy toolkit. One way in which this could be achieved may be by increasing their confidence in implementing a wider range of

strategies. Research suggests that if an individual believes that they can effectively apply a given emotion regulation strategy, they are more likely to employ such a strategy (Moreira et al., 2021; Tamir, 2021; Zell & Krizan, 2014). Furthermore, making the implementation of certain strategies less effortful (e.g., reappraisal) by breaking these down, and providing students with safe spaces where they can frequently practise using these, could improve the likelihood of them applying such strategies in real-life situations (Cohen & Mor, 2018; Ghafur et al., 2018). Training individuals to utilise healthy emotion regulation choices is an essential part of CBT interventions (Beck, 1991). EPs, who have a unique skillset in adapting and delivering therapeutic interventions, including CBT, in educational contexts, could be involved in the development and delivery of such a programme (Rait et al., 2010; Zafeiriou & Gulliford, 2020). EPs are also highly skilled in providing supervision to others (Ellis & Wolfe, 2020; Osborne & Burton, 2014), and have over the past 20 years overseen the implementation of the Emotional Literacy Support Assistants (ELSA) intervention. ELSAs are EP-trained and supervised teaching assistants (TAs) who promote emotional literacy and regulation for children and young people in schools. ELSA sessions could provide another space where TAs can focus on helping students to build a richer emotion regulation strategy repertoire.

As students highlighted the impact of emotion regulation contagion within salient peer groups, another implication of the present study may be to utilise peers to model emotion regulation. The significant role of peer supporters, mentors, and peers as mental health champions in promoting healthy emotion regulation and adaptive behaviours has been highlighted in various models (Coleman et al., 2017; DfE, 2021; Walpole, 2017; Waterhouse, 2020). EPs, who are trained as scientists—practitioners, are in a unique position to discuss the evidence-base of relevant programmes with key school staff members in order to maximise the effective delivery of such interventions and drive positive change in the area of adolescent mental health. Through the utilisation of coaching (Adams, 2016), their supervisory skills (Dunsmuir et al., 2015), and expertise in adolescent development models, EPs can closely

work with staff co-ordinating peer mental health champion programmes and provide ongoing support with the practical implementation and evaluation of the intervention.

While financial challenges faced by secondary schools and the complexity of structures within these educational settings are acknowledged, there is a need for EPs to promote mental health interventions in schools which are for all students, therefore preventing difficulties becoming entrenched, leading to more adverse outcomes, and requiring specialist support in the future. EPs have a responsibility to ensure that preventative programmes adopted by schools are sustainable from a staff allocation and availability as well as from a financial perspective, as much as possible. While schools continue to be named key stakeholders in the delivery of mental health intervention (Ofsted, 2019), EPs, and especially ones working within traded models of service delivery, have a responsibility to advocate for the allocation of protected free-to-schools time for thinking and strategically planning whole-school mental health promotion and support systems (O'Hare, 2017).

# 5.7.2 Normalisation of (Non-pathological) Anxiety

Adolescents noted often having unhelpful thoughts in relation to anxiety-provoking situations and experiencing physiological symptoms, both of which are thought to be common elements of anxiety (Stallard, 2009). Students, however, did not view the experience of anxiety as a 'normal' or shared response to stressful situations at this stage of life (e.g., exams), therefore experiencing shame, engaging in suppression, and not seeking support when they needed it. An important implication of the present study could, therefore, be that schools need to actively challenge negative perceptions around anxiety. Utilising psychoeducational approaches, schools can increase student understanding of what anxiety is, when it is helpful/less helpful, and establish a school climate where it is safe for students to be open about their experiences. School staff's understanding of theories of anxiety, evidence-based support and systemic factors and processes contributing to the maintenance of negative attitudes towards mental health will likely need to be addressed through continuous professional development as part of this process (Farrell & Department for Education and

Skills, 2006; Groom, 2006; Squires et al., 2007). Owing to their training, EPs, who view children and young people's strengths and needs holistically and conceptualise mental health as linked to the wider system around children and young people, can play a key role in supporting and upskilling staff, and even parents and carers (Weare, 2015). School staff can then incorporate such information within PSHE lessons, tutor time, or set up separate sessions in relation to this. Where staff face competing demands, EPs may also step in and support with the delivery of such content.

In acknowledgement that internalised negative views about mental health are not simply based on misconceptions and can be deep-rooted (Corrigan & Watson, 2002), apart from psycho-educating students, schools will also need to take an active role in challenging discriminatory attitudes towards mental health conditions. While research has shown that negative views about mental health needs can develop from a young age, there is also evidence that these can be more easily targeted and changed in childhood and adolescence compared to when one has already transitioned into adulthood (Campos et al., 2018; Corrigan & Watson, 2007). Cultivating a school culture which promotes acceptance should be high on school leadership teams' agendas (Glazzard, 2019), with school policies being explicit in how they deal with negative attitudes and bullying in relation to mental health needs. EPs can closely work with school leaders and mental health leads to appropriately develop and implement relevant policies. Research has further demonstrated that the adoption of wholeschool approaches that encourage emotional expression, mental health literacy and helpseeking behaviours can contribute to the development of more positive attitudes towards mental health (Corrigan & Watson, 2007; Glazzard, 2019). EPs, who have extensive knowledge on emotional development and evidence-based programmes for its promotion, have over the years been involved in the implementation of various relevant approaches (e.g., Emotion Coaching) (Gus et al., 2015, 2017; Romney, 2020; Weare, 1999), therefore holding unique expertise on how to most effectively apply these at a whole-school level to promote systemic change (Atkinson et al., 2019; Howe, 2018).

# 5.7.3 Systems of Interpersonal Support

The present study identified the perceived importance of having access to attuned others during the anxiety generative and regulatory process. This has important implications for the way school environments are set up. In a systematic literature review, Martin and Atkinson (2018) found that students benefitted when educational settings had established clear lines of communication and support between educational staff and students for the expression of their emotional needs. Clearly identifiable pastoral teams, school-based councillors, and designated teachers for each year group operating with an open-door policy could have a central role in promoting interpersonal emotion regulation by providing a safe space for attuned interactions with students. While staff within such teams are usually trained and experienced in building emotionally supportive relationships, some students in our study reflected that they had at times experienced non-empathic responses from others, which can contribute to help-avoidance behaviours (Children's Commissioner, 2017). Therefore, a need for empathic emotional support available at a universal level is highlighted. EPs, who are experienced in the delivery of interventions which apply the principles of attunement (Adams et al., 2021; Cubeddu & MacKay, 2017; Kennedy et al., 2011) and the use of relational and compassion-focused practices (Babcock Learning and Development Partnership, 2020; McLaughlin & Clarke, 2010; Welford & Langmead, 2015), are well placed to deliver wholeschool training on such approaches.

Another key implication is that while promoting warm and caring relationships, teaching staff may need to also make practical adjustments to the classroom and school environment to help students feel contained and regulate their anxiety. As also discussed above, having a good understanding of theories of anxiety and relevant evidence-based support for promoting regulation in the classroom will likely help staff feel more confidently about their practice. However, as the effective implementation of relational and nurturing approaches in schools requires the systematic investment of time and effort (Danby & Hamilton, 2016), school staff will likely need protected time and space to reflect on and share practice. While it was not

within the scope of the present study to explore the staff perspectives on interpersonal emotion regulation in the classroom, previous research has demonstrated that teaching staff may experience confusion and hold conflicting views about their role in promoting mental health (Danby & Hamilton, 2016). This is not entirely surprising, if one takes into consideration the lack of clarity in current government guidance; while whole-school approaches to mental health are advocated (DfE, 2018), the role of school staff in promoting positive mental health is not clearly defined, and support for carrying out that role is not specified (DoH & DfE, 2017). In a recent review of universal mental health approaches, researchers suggested that government guidance and legislation lack a shared definition of mental health, therefore further contributing to differing school staff's perceptions of mental health (Anna Freud National Centre for Children and Families, 2019).

Given their multiple responsibilities (e.g., lesson planning, assessment, marking, familiarising with new curriculums etc.), teachers may often lack time for reflection, discussion, and sharing of creative practices for the promotion of student emotion regulation and mental health with colleagues. Under such conditions, teaching staff may become more learning-focused to ensure they meet curricular demands and be less available for providing 'containment' to students. Utilising their consultative skills as well as professional practice frameworks which encourage reflection and collaborative problem-solving, EPs are in a unique position to create and facilitate spaces for teachers to develop a shared understanding of mental health and think of creative ways to promote regulation in the classroom on a day-to-day basis (Bell et al., 2015; Nolan & Moreland, 2014). Furthermore, by carrying out research on teaching staff's roles and practices in promoting mental health, and potential barriers/facilitators for carrying these roles, EPs can help inform governmental policies. In response to the EP role being overlooked in previous policies (e.g., Green Paper; DfH & DfE, 2017), EPs should co-ordinate with their professional bodies and advocate for their role and expertise in supporting emotion regulation and mental health in schools.

## 5.7.4 Assessment and Pupil Participation

The present research has important methodological implications about EP assessment. While parents and school staff are valuable informants during an assessment and consultation process (Duchesne & McMaugh, 2018; Ebersöhn & Eloff, 2004; Nolan & Moreland, 2014), the current study demonstrated that student contributions can be equally in depth and meaningful, when adjustments are made to maximise student comfort when discussing sensitive matters such as emotion regulation and the experience of anxiety. McCormack et al. (2020) found that mental health practitioners often rely on observational data about how children and young people respond to stress-provoking situations; this is due to children and young people not yet being able to accurately separate between physiological, cognitive, and behavioural manifestations of anxiety within one-to-one sessions. Participants in the present study, however, were, able to reflect on previous experiences of anxiety and rather eloquently describe and discriminate between the various elements of anxiety. EPs, who have a particular interest in eliciting children and young people's views and often do so in a range of contexts (e.g., within statutory assessments, therapeutic interventions, group work), should consider letting the children and young people direct the way in which they communicate their views to them. EPs are creative in the approaches they utilise and can be highly skilled in differentiating the tools that they use, so children and young people with additional needs can access these (e.g., using pictures, photographs, drawing etc. to elicit views). The present research indicates that EPs may also benefit from utilising technology and means of communication that students are familiar with and use in their daily lives, where this is feasible and appropriate. At a systemic level, EPs are well placed to utilise such creative means to support schools to capture students' experiences and views of school emotion regulation and mental health support systems, and to effectively enable student participation in review, and planning of school mental health provisions (Carrington & Holm, 2005).

Students in the present study were also able to reflect on the motives driving their emotion regulation choices, with students' regulatory attempts sometimes being underpinned by multiple motives at the same time, or one motive across situations. Demonstrating a level

of flexibility within emotion regulation motivation, and therefore aligning emotions with specific contextual demands can be an important contributor to mental health (Kim et al., 2015). There is, therefore, value in EPs, who are often interested in understanding beliefs and motivational factors underpinning behaviour, specifically asking questions about emotion regulation motives in consultation with parents and teachers, when carrying out individual work with students, assessments, and classroom observations. EPs may specifically explore whether students' emotion regulation motives align with their long-term motives, emotion regulation choices, and contextual demands they are faced with. If they do not, it may be important to understand 'why' (e.g., the student may feel their emotion goal is unattainable, therefore lacking motivation to pursue it i.e., when experiencing EBSNA), and utilise this information to adapt intervention and support (e.g., working with the student to set 'easier' emotion goals, support motivation to 'stick' with more longer-term goals, etc.). EPs, who are skilled at building rapport with children and young people and have a range of tools for examining and understanding motivation (e.g., tools from Personal Construct Psychology [Walker & Winter, 2007], person-centred planning tools such as the Planning Alternative Tomorrows with Hope [PATH] model [Pearpoint et al., 1991], systems thinking tools to understand behaviour e.g., the Iceberg Model [Pellegrini, 2009]), should lead on this work. As Arkowitz et al. (2017) have noted, intrinsic motivation to engage with emotion regulation support will likely get boosted by helping an individual uncover and understand their emotion goals and beliefs.

Another implication of the present study is that EPs may need to explicitly assess students' emotion controllability beliefs. In the context of accessing therapeutic support, Moumne et al. (2021) have suggested that "if not explicitly addressed, low emotion controllability beliefs [...] may unknowingly persist throughout treatment, hindering willingness to participate in therapeutic exercises perceived as threatening, and limiting ability to generalize learned strategies to more naturalistic contexts" (p.1612). While various therapeutic interventions such as CBT and family therapeutic approaches to an extent involve the concept of emotion controllability, they do not specifically explore or target these in sessions. EPs, who

are skilled in delivering therapeutic input for children and young people who do not meet CAMHS thresholds (Atkinson et al., 2011, 2012), should utilise appropriate measures to assess emotion controllability beliefs at the beginning of interventions targeting emotion regulation to maximise their effectiveness.

## 5.7.5 Advancing Knowledge about the Process Model

The current study has important implications for our understanding and applications of Gross' process model of emotion regulation (2015). The process model constitutes one of the most commonly used emotion regulation frameworks, yet it has been criticised for being 'within person'. The present research demonstrated that emotion regulation is a complex process the stages of which can be impacted by a number of factors linked to adolescent beliefs and motivations as well as contextual and interpersonal factors, indicating that the process model should not be examined nor applied without consideration to one's circumstances and context. EPs, who have an in-depth understanding of school contexts and often adopt a bioecological perspective of behaviour and psychological health (Bronfenbrenner, 1995), should work in close partnership with mental health professionals, schools, families, and students to promote a more contextualised conceptualisation of emotion regulation. EPs, often described as 'bridges' between schools and mental health services (Cappella et al., 2011; Davies, 2020; Price, 2017), constitute key professionals in promoting up-to-date knowledge and understanding about emotion regulation, and have a responsibility to ensure frameworks serve as tools to help understand children and young people as they exist within systems rather than as separate entities.

## 6. Conclusion

This research examined the relationship between adolescents' emotion controllability beliefs, emotion regulation, and anxiety in the context of mainstream secondary schools in England. It further explored *how* adolescents with differing emotion controllability beliefs perceive the generation and regulation of anxiety, and *what reasons* they give for using certain emotion regulation strategies more frequently than others. Apart from intrapersonal factors affecting emotion regulation, the current research recognised the importance of the social context, by also exploring which interpersonal processes adolescents perceive as helpful/hindering in the experience and regulation of anxiety. To date, for the study of emotion controllability beliefs in adolescence, research has relied on quantitative data (cross-sectional, longitudinal or randomised control trial designs). Therefore, the present study is the first known study to adopt a mixed-methods design; using quantitative data to examine relationships between the main variables (emotion controllability beliefs, emotion regulation, anxiety), and qualitative data to allow for a more in-depth exploration of inter- and intra-personal emotion regulation processes.

Findings showed that holding differing emotion controllability beliefs was associated with using different types of emotion regulation strategies (RQ1). Further quantitative analyses provided evidence for the researcher's second prediction: emotion regulation constitutes an important mechanism via which adolescent emotion controllability beliefs can influence anxiety (RQ2). With regards to the qualitative arm of the study, while adolescents were able to recognise anxiety by noting its cognitive and physiological manifestations, they held negative views about its experience and regulation (RQ3). Further, adolescents portrayed a number of factors as influential in the process of selecting emotion regulation strategies: within-person factors, interpersonal factors, and factors relating to the wider context in which anxiety was generated and regulated (RQ4). Finally, adolescents noted the benefits of being surrounded by empathic others and being part of educational environments set up with consideration to their needs (RQ5).

Findings from the study have important implications for emotion regulation theory, EP practice, mental health assessment and intervention, educational practices, and policy. Specifically, implications in the following areas are noted: intervention targeting emotion controllability beliefs and emotion regulation; normalisation of (non-pathological) anxiety through the use of psychoeducational approaches, the establishment of accepting school cultures, and policies which challenge discriminatory attitudes towards mental health; the development of clearly identifiable whole-school interpersonal support systems; utilisation of communication methods that adolescents are familiar with and comfortable using to maximise their participation in matters that affect them; EP assessment of adolescent emotion controllability beliefs and emotion regulation motives to appropriately adapt evidence-based support and intervention; promotion of up-to-date knowledge and understanding about emotion regulation to schools, mental health services and other key stakeholders. This research has advanced knowledge about one of the most widely used emotion regulation frameworks, by demonstrating that emotion regulation is a fluid, dynamic, and complex process likely influenced by various motivational, environmental, and interpersonal factors at any one time and throughout its different stages.

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# **Appendices**

# **Appendix A: Assumptions Checking for Linear Regression Analyses**

Linear regression assumption checking. Firstly, to ensure that the findings of a study are generalisable a sufficiently large sample is required (Tipton et al., 2017). According to the Central Limit Theorem, irrespective of the population distribution the sample means of any random variable tend to approach a normal distribution as the sample size increases (Islaqm, 2018; Kwak & Kim, 2017; Mendez, 1991). Generally, a large enough sample is considered to be 30 or more than 30 (Field, 2017; Islaqm, 2018). Therefore, in the present study the sample of 81 was deemed adequate.

In order to check the assumption of normality, histograms and normal Q-Q plots were examined, and Shapiro Wilk's test was performed. While the Shapiro Wilk's values were not significant (p > 0.05) for personal emotion controllability beliefs, reappraisal and suppression and therefore the null hypothesis of population normality was not rejected, the values for general emotion controllability beliefs and anxiety were significant potentially indicating a violation of normality (see Table 13). An examination of the Q-Q plots of standardised residuals for these variables however showed that the majority of points were clustered on or very close to the trend line with only a few of them slightly deviating towards the two ends of the line (normal distribution with some fat tails); the histogram examination also showed that the data contained approximately normally distributed errors. Furthermore, the scatterplot of standardised residuals indicated that the data are homoscedastic and meets the assumption of linearity (Tabachnick & Fidell, 2013) (for transparency see Appendix for Matrix of Scatterplots).

Table 13
Shapiro-Wilk's test of normality values

	W	df
General emotion controllability beliefs	.97*	81
Personal emotion controllability beliefs	.98	81
Suppression Use	.98	81
Reappraisal Use	.98	81

Note. N = 81; \*p < .05, \*\*p < .01, \*\*\*p < .001.

In order to detect values which could be classified as outliers, the most common method for identifying univariate outliers in psychological research, as presented in Leys' and colleagues' literature review (2013), was used; the data were standardised through conversion to z scores and then it was checked whether any cases with standardised residuals higher than (minus or plus) 3.29, which constitutes 4 standard deviations of mean (99.9% of scores) (Tabachnick & Fidell, 2013), were present in the dataset. No outliers were identified (see Table 14 for minimum and maximum values examined).

Table 14

Identifying outliers: minimum and maximum values of standardised data

Standardised Variable (z-scores)			Min z-score value	Max z-score value
General	emotion	controllability	-2.19	1.89
beliefs				
Personal	emotion	controllability	-2.22	1.92
beliefs				
Suppression Use			-2.08	2.26
Reappraisal Use		-2.50	2.22	
Anxiety Symptoms			-1.51	2.70

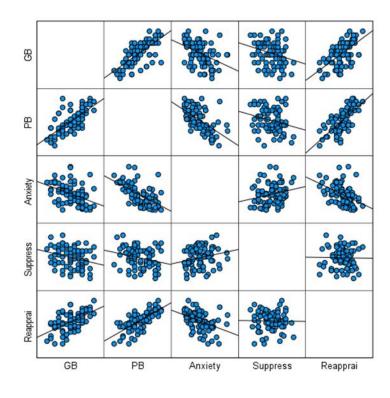
In order to check whether the assumption of no or little multicollinearity was met, a bivariate correlation using Spearman's rho coefficient between age, general and personal emotion controllability beliefs, suppression, reappraisal, and anxiety was performed. Multicollinearity exists when a high correlation between (at least) two independent variables is present. In such a case, due to the big size of standard errors it is more likely that the regression coefficient will not be found to be significant (Allen, 1997). As shown in Table 8 in the main text of this thesis (p.73), apart from reappraisal and personal emotion controllability beliefs there were no high correlations between the independent variables of this study. To further examine whether these intercorrelations could indicate multicollinearity issues, collinearity statistics were used. As the Variance Inflation Factor (VIF) and Tolerance did not exceed the accepted limits (Daoud, 2017) (see Table 15 below for details), and as statistical issues tend to occur at correlations of 0.9 and higher (Tabachnick & Fidell, 2013), there were no concerns for multicollinearity and the assumption was considered met.

Table 15

# Collinearity statistics for all independent variables of the study

		Tolerance	VIF
General	emotion	.48	2.10
controllability belie	fs		
Personal	emotion	.36	2.79
controllability belie	fs		
Suppression Use		.85	1.17
Reappraisal Use		.45	2.25

# Matrix of scatterplots of standardised residuals





# Debriefing form for interviewees

Uknow it can sometimes be difficult to talk/write about your thoughts and feelings, so thank you for taking the time and putting in the effort to tell me about your experiences. It is hoped that with this study we will learn more about how to help children and young people manage anxiety and other emotions in school.

We talked a lot about different emotions (happy, excited, anxious, worried). Sometimes people try to avoid negative emotions, because they can be more difficult to manage than positive ones. In reality all emotions are normal and even 'negative' emotions can sometimes be helpful. They are a normal part of life and a normal response to certain situations. You should know that learning how to deal with emotions is a continuous process, and none is perfect at it.

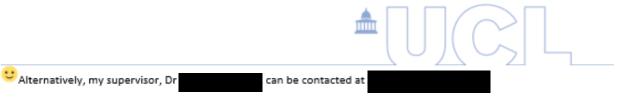
What is important is to ask for help from a trusted friend or adult when you feel that you need help to manage a strong emotion. By thinking together about different ways to go about managing an emotion and by reflecting on how you have managed past situations, you can learn more about how you can deal your emotions effectively and be happier.

What if I have any questions about the study that I would like to ask now?

UPlease feel free to get in touch with me at any point at

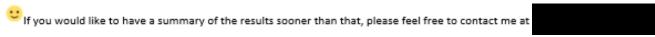
How can I contact the researcher if I have any further questions or if, for any reason, I want my responses to be deleted once I have left?

ee Please feel free to contact me at any point at



### What if I want to find out about the results of the study?

There may be a short presentation or a leaflet with general information about what I found from the study in your school at the end of the school year. Your name will not be mentioned anywhere in these.



# How will you use my answers to the questions? I am worried about this study, or something that I said - who should I contact?

The answers from all the children and young people who took part in the study will be analysed and used for research purposes only. In the research report all the answers (including your name, school etc.) will be completely anonymised and none will be able to recognise you.

if you are worried about anything that has to do with the study, please get in touch with me. If for any reason you would like me to delete your responses, please let me know by sending an e-mail at

For more information, you can also visit the university website: <a href="https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice">https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice</a>.

#### What if I am interested in this area of research and want to read more about it?

https://safespacehealth.uk/



- > Sheri Van Dijk's book: 'Don't Let Your Emotions Run Your Life for Teens'.
- > Margot Sunderland's book: 'Bothered: Helping teenagers talk about their feelings'.
- > Kate Collins-Donnelly's book: 'Banish your self-esteem thief'.
- > Kate Collins-Donnelly's book: 'Starving the anxiety gremlin'.
- > Paul Stallard's book: 'Think Good Feel Good: A Cognitive Behaviour Therapy Workbook for Children and Young People'.

#### What if I need professional help? Who can I talk to?

It is important to ask for help from a trusted adult when you are struggling emotionally.

There are also a number of helplines and support services that you can speak to:

- https://youngminds.org.uk/
- www.childline.org.uk
- https://www.cyphaven.net/
- https://www.kooth.com/
- https://www.themix.org.uk/get-support
- https://nopanic.org.uk/youth-helpline-services/
- > https://www.sabp.nhs.uk/mindsightsurreycamhs/services/early-intervention/youth-counselling-service

Foteini Platsia



# **Appendix C: Ethics Application**

stress provoking as a student (e.g. exams). I will also make it clear to students that they are free to skip questions they do not want to answer, take breaks, have a think and get back to me at a later time, or end the interview at any time. I will also explain that participants can withdraw from the study at any point they choose before the interviews begin. Finally, participants will be debriefed.

#### Safeguarding

Safeguarding/disclosures which breach Equality acts could arise. I will explain to students who participate in interviews that any information shared that suggests safeguarding issues have occurred ('Tryou or someone else has been or is in danger of being harmed') will be dealt with by following the school and Local Authority Safeguarding protocols and procedures.

#### Reporting and Dissemination

The data collected in this study will be anonymised and details which would identify students will be omitted. Participants will be identified by participant numbers, if necessary for the purpose of data analysis, and no means of identifying individual students or their school will be included in the final write up. This will mean that school staff, parents or students will not be able to identify other students based on the data included in the final report. Only the researcher and their supervisors will have access to data once collected and this will not be shared with any other party. These data will be kept in password protected, encrypted files.

Please confirm that the processing of the data is not likely to cause substantial damage or distress to an individual

Yes 🗵

#### Section 9 — Attachments. Please attach the following items to this form, or explain if not attached

a.	Information sheets, consent forms and other materials to be used to inform potential participants about the research (List attachments below) Yes $\boxtimes$ No $\square$
	Appendix A = SENCO Information letter
	Appendix B - Parent Information letter
	Appendix C – Parent Consent form
	Appendix D – Student Information and Consent form
	Appendix E – Researcher One-page profile
	Appendix F – Interview Debriefing form
	Appendix G = Questionnaires
	Appendix H = Draft Interview Schedule
	Appendix I – Risk Assessment
b.	Approval letter from external Research Ethics Committee Yes

Yes 🗆

c. The proposal ('case for support') for the project

d. Full risk assessment

Yes (X)

#### Section 10 - Declaration

I confirm that to the best of my knowledge the information in this form is correct and that this is a full description of the ethical issues that may arise in the course of this project.

I have discussed the ethical issues relating to my research with my supervisor. Yes  $\boxtimes$  No  $\square$ 

I have attended the appropriate ethics training provided by my course.

Yes 🗵 No 🗆

#### I confirm that to the best of my knowledge:

The above information is correct and that this is a full description of the ethics issues that may arise in the course of this project.



Date 11/10/2020

Please submit your completed ethics forms to your supervisor for review.

#### Notes and references

#### Professional code of ethics

You should read and understand relevant ethics guidelines, for example: British Psychological Society (2018) Code of Ethics and Conduct

Or

British Educational Research Association (2018) Ethical Guidelines

British Sociological Association (2017) Statement of Ethical Practice

Please see the respective websites for these or later versions; direct links to the latest versions are available on the <u>Institute of Education Research Ethics website</u>.

#### Disclosure and Barring Service checks

If you are planning to carry out research in regulated Education environments such as Schools, or if your research will bring you into contact with children and young people (under the age of 18), you will need to have a Disclosure and Barring Service (DBS) CHECK, before you start. The DBS was previously known as the Criminal Records Bureau (CRB). If you do not already hold a current DBS check, and have not registered with the DBS update service, you will need to obtain one through at IOE.

Ensure that you apply for the DBS check in plenty of time as will take around 4 weeks, though can take longer depending on the circumstances.

#### Further references

The <u>www.ethicsguidebook.ac.uk</u> website is very useful for assisting you to think through the ethical issues arising from your project.

Robson, Colin (2011). Real world research: a resource for social scientists and practitioner researchers (3rd edition). Oxford: Blackwell.

This text has a helpful section on ethical considerations.

Alderson, P. and Morrow, V. (2011) The Ethics of Research with Children and Young People: A Practical Handbook. London: Sage.

This text has useful suggestions if you are conducting research with children and young people.

Wiles, R. (2013) What are Qualitative Research Ethics? Bloomsbury.

A useful and short text covering areas including informed consent, approaches to research ethics including examples of ethical dilemmas.

Departmental use	
appropriate, the supervisor must refer Administrator via email so that it can be consideration. A departmental researce either to support your review process,	ng ethics issues, or a more detailed review would be the application to the Research Development e submitted to the IOE Research Ethics Committee for h ethics coordinator or representative can advise you, or help decide whether an application should be referred e guidelines explaining when to refer the ethics application posted on the committee's website.
Student name	
Student department	Department of Psychology and Human Development
Course	DEdPsy
Project title	The relationships between beliefs about emotion controllability, emotion regulation and adolescent arxiety in English secondary schools.
Reviewer 1	
Supervisor/first reviewer name	
Do you foresee any ethical difficulties with this research?	No, I don't foresee any ethical difficulties. The data collection, analysis, storage, and dissemination procedures have been well considered.

Date	21 October 2820	
Reviewer 2		
Second reviewer name		
Do you foresee any ethical difficulties with this research?	No, I don't foresee any ethical difficulties. The data collection, analysis, storage, and dissemination procedures have been well considered.	
Supervisor/second reviewer signature		
Date	10.11.2020	
Decision on behalf of reviews		
	Approved	
Decision	Approved subject to the following additional measures	
	Not approved for the reasons given below	
	Referred to REC for review	
Points to be noted by other reviewers and in report to REC		
Comments from reviewers for the		

# **Appendix D: Example Interview Schedule**

### Research questions explored through interviews:

- 1. How do adolescents perceive the generation and regulation of anxiety?
- What reasons do adolescents give for using certain emotion regulation strategies more frequently than others?
- 3. Which interpersonal processes do adolescents perceive as helpful or hindering in the

### Introduction:

- ✓ Give participants time to ask any questions and go through the Consent Form again, if the participant has any questions.
- ✓ Go through the script about the interview process:

The aim of this interview/conversation is to understand how adolescents deal with stress and anxiety and what is helpful/less helpful in dealing with such emotions in different situations. I am interested in exploring your thoughts, feelings, and personal experiences. There are no right or wrong answers and I would like you to be as open and honest as possible. Everything you say/write/send pictures of will be kept confidential and will be anonymised right after the interview, so please do speak freely and take your time to think and speak/write. You can also use to use the drawing function of the chat, use gifs/emojis and pictures from the internet to add to what you've written (only for WhatsApp interviews).

If at any point you feel tired, let me know and we can take a 5-10-minute break. If a question makes you feel uncomfortable, we can skip it or you can have a think and get back to me later. Please know it is okay, if you decide for any reason to stop and leave the interview. Also, if you later decide that you would rather not have your answers used in this research, you can let me know and I will delete them.

### 5-minute ice-breaker activity

I know it can be strange talking to someone you've never met before, so I thought we can start with a fun activity before we go ahead with my questions. Does this sound okay?

'Lost in Space' Activity

#### Instructions:

Ask the participant to imagine that they are living in a space station. All of a sudden, the space station malfunctions and they have to evacuate. They are only allowed to take 5 items with them. Which items would they choose?

Both the researcher and the participant share their answers, explaining why they chose those five items.

# Interview Questions:

Now I am going to give you a scenario of somebody feeling anxious/stressed/worried in different situations. As you read/listen to them, I want you try and imagine being in that person's position. Then we will talk about it. To show **gif** of boy in school assembly situation: https://media.giphy.com/media/IJOhsRkLDIWyIDpAPG/giphy.gif

John recently had to do a project for 'Technology and Design' and he worked very hard on it. He got a really good grade and his teacher keeps praising his performance. The headmaster has now asked John to share a short presentation about his project in front of the whole school. John is already feeling sick.

- 1. Has anything like this ever happened to you? Tell me about it. What would your reaction to this event be? What would it depend on? Is this what you would usually do? How stressful was this for you/how much did that event impact your life? How much control did you have over your reactions to that event? (R.Q. 2 + 3)
- 2. Did the presence of others affect how you dealt with your anxieties in that situation? Think about your peers, teachers and parents. (R.Q. 4)
- 3. What can others do? Was there anything that others did that helped you feel better or made things worse in that particular situation? Why? (R.Q. 4)
- 4. How about the environment (e.g., the house or the classroom)? How was that? Did the people present make any changes to the environment/room/space around you that helped or made your anxiety worse? How can others change the environment to make things better when you are feeling anxious? (R.Q. 4)
- 5. Is there anything that others did that makes things worse for you when you are feeling anxious? Why? (R.Q. 4)
- 6. When you are feeling stressed/anxious, in what ways do you look to other people to help you feel better?

You talked about doing this ..., these are some stuff other people do (use example list if needed):

- a. Do not even attempt to deal with/acknowledge any arising emotions (e.g., think 'it's pointless, I cannot change my emotions') (**Identification Stage**) How likely is it that you would do that too/how often would you deal with your anxiety in this way? (R.Q.1, 2+3)
- b. Do you think that you can control your anxiety if you try to? How? Does it matter if you are feeling very anxious or only a little? Can you think of an example? (R.Q.1)
- c. Choose to be around others/avoid being around others. If you could choose someone to be around (avoid being around) when you start feeling anxious who would that be? Why? How is that person like? (R.Q. 4)
- d. Try and think about the event in a way that would makes them feel better. How likely is it that/how often would you deal with your anxiety in this way? How would you go about doing that? Why? (**Selection Stage**) (R.Q. 1, 2 + 3)
- e. Try and think about potential positive outcomes of the event. How likely is it that/how often would you deal with your anxiety in this way? Why? How would you go about doing that? (**Selection Stage**) (R.Q. 1, 2 + 3)
- f. Try and not show on the outside how they felt. How likely is it that/how often would you deal with your anxiety in this way? Why? How would you go about doing that? (**Selection Stage**) (R.Q. 1, 2 + 3)
- g. Fuss about what's making them worried to a friend, cry and feel sad and stressed for days; How likely is it that/how often would you deal with your anxiety in this

- way? Why? How would you go about doing that? (**Selection Stage**) (R.Q. 1, 2 + 3)
- h. Try and avoid the situation or try to not think about it. How likely is it that/how often would you deal with your anxiety in this way? How would you go about doing that? (**Selection Stage**) (R.Q. 1, 2 + 3)
- i. Ask someone for advice on what to do / ask for help. How likely is it that/how often would you deal with your anxiety in this way? How would you go about doing that? (Explore in which stage of the emotion regulation process this would be more likely to happen e.g., at the selection stage 'would you ask a friend/someone you trust in order to help you make the best choice?', or in the implementation stage 'would you ask for help if you were already feeling very stressed and had tried a few things that didn't go well?' (R.Q. 4)
- j. Try a few different things or just one 'technique' for dealing with their anxiety. (**Selection Stage**) How likely is it that you would try a range of things/ stick with one 'technique' until you feel better? ( $R.Q.\ 1,\ 2+3$ )
- k. Notice how others deal with their anxieties. How often / how likely are you to do this too? Why? How is it seeing others deal with their anxieties? (R.Q. 4)
- 7. How easy or difficult do you feel it is to do any of the above things to deal with anxious feelings? Have you tried dealing with an anxious feeling by doing any of the above before? How did it go? Have you found it helpful using any of the above techniques in stressful situations? (Implementation Stage) (R.Q. 1, 2 + 3);
- 8. When deciding what's best to do in a stressful situation, do you try and stick with your initial plan (e.g., thinking about the positive side of things and what you can learn from the situation) or do you try many different things (e.g. initially think positively about what happened but it's not helpful, then talk to your friend/parent/teacher, etc.)? Do you ever feel that nothing works in helping you calm when you are anxious? What do you do then? Do you try and find other ways of dealing with this or quit trying altogether? (Stage of Monitoring Progress) (R.Q. 1, 2 + 3).
- 9. How do you feel being around others/knowing others/talking to others who experience anxiety? (R.Q. 4)
- 10. What does feeling nervous/anxious/stressed mean to you? How do you know when you are feeling this way? (R.Q. 2)
- 11. How easy/possible is it for you to change strong emotions like anxiety and worry if you want to? (R.Q. 1, 2 + 3)

Alternative scenario for students who do not relate with the first one:

Zoe finds Science particularly tricky and always makes sure that she has revised before the lesson. This weekend Zoe had to deal with a family emergency and hasn't had time to study as she usually does. As she enters the class on Monday morning the teacher announces that they are having a surprise Science test.

# Opportunity for the pupil's voice

- 1. Are there any thoughts/comments you would like to share about emotions in general and how you manage them?
- 2. Is there a question you would have liked me to ask in order to better understand your thoughts and experiences about managing emotions?
- 3. Emotion check-in using the Emotion Colour Wheel.

If there is anything that you want to add to your answers / have any more thoughts about what we talked about during the next few weeks, feel free to get in touch with me ('send these through in this chat' if it was a WhatsApp interview).

- ✓ Thank participant and go through the debriefing form together. Normalise all emotions ('negative emotions can sometimes be helpful and they are a normal part of life', 'we do not always need to try and change our emotions even negative emotions can sometimes be helpful' and 'learning how to deal with emotions is an ongoing/continuous process') and emphasise the importance of asking for help from trusted others when needed and reflecting on how one has managed past situations, and learning from these.
- ✓ Give the opportunity to ask any other questions and reflect on the interview, and the interview mode.

## General prompts:

Why? How? Can you tell me more about that? What do you mean by...? Can you give me an example of...? Tell me what you were thinking? How did you feel?

> App (Symbol It) with visuals to be used if student has literacy difficulties / additional needs that affect written expression

# **Appendix E: Informational and Consent Forms**

### **Parent Information Form**

Dear Parent,

My name is Foteini Platsia and I am a Trainee Educational Psychologist at the UCL Institute of Education. As part of my training, I am completing a study on the relationships between adolescent beliefs about their emotions, emotion regulation, and anxiety in English secondary schools. Given the current societal climate (COVID-19 outbreak) and the developmental, academic and socio-emotional challenges faced during adolescence it seems particularly relevant to consider ways in which adolescents' mental health can be enhanced.

#### What does the study involve?

If both yourself and your son/daughter agree to take part in this study, the child/young person will be asked to complete a short online questionnaire (around 10 minutes); questions will be about whether they believe they can control their emotions, what strategies they use to deal with strong emotions, and how much anxiety, if any, they experience on a day-to-day basis. A few weeks after that, some children/young people will also be asked to participate in a short telephone or WhatsApp interview (depending on what they feel most comfortable with) for approximately 30 minutes, at a time that is convenient for them. During the interview, discussions will be around their unique experiences of managing their emotions in different situations. The child/young person will have complete control over what information they choose to tell me about, and will have the right to withdraw at any time and all unprocessed data will be destroyed.

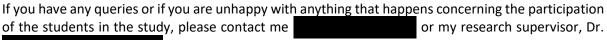
### What will happen to the information the children/young people provide?

All data will be analysed and used for academic purposes only and no identifying information will be used in any reports following the project. Only my supervisor and I will have access to the data. Once these are analysed, the students' data will be deleted.

### Does my son/daughter have to take part?

We hope that you would like for your son/daughter to contribute to this study, but the decision is yours (and your son's/daughter's). If they do participate, there will be the option of a short presentation or a leaflet for staff/students/parents at the end of the school year with information on how to support students' mental health in the school environment.

# What if I have a question or concern?



In acknowledgement of the risks associated with coronavirus and in order to limit the spread of the virus, this study is conducted solely remotely, no direct contact with the researcher will be required at any stage of this project. Thank you for your support with this study.

Foteini Platsia, UCL Institute of Education

#### **Local Data Protection Privacy Notice:**

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data, and can be contacted at <a href="mailto:data-protection@ucl.ac.uk">data-protection@ucl.ac.uk</a>. This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in our 'general' privacy notice: For participants in research studies, click <a href="mailto:here.">here.</a>

The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the 'local' and 'general' privacy notices. The lawful basis that will be used to process your personal data are: 'Public task' for personal data and' Research purposes' for special category data. Your personal data will be processed so long as it is required for the research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this, and will endeavour to minimise the processing of personal data wherever possible.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at <a href="mailto:data-protection@ucl.ac.uk">data-protection@ucl.ac.uk</a>.

**Parent Consent form:** The relationships between beliefs about emotion controllability, emotion regulation and adolescent anxiety in English secondary schools.

Please fill out, sign and return this consent form to the researcher, if you wish for your son/daughter to take part in this study.

	Please	circle
I have read the information sheet and understand what the study is about.	Yes	No
I understand that my son's/daughter's participation is voluntary and they may ask for their questionnaire responses to be deleted and/or withdraw from the interview at any time, without having to give a reason.	Yes	No
I understand that I can email Foteini Platsia to ask questions about the research at: <a href="mailto:a.platsia@ucl.ac.uk">a.platsia@ucl.ac.uk</a> .	Yes	No
I understand that my and my son's/daughter's personal details such as our names will be kept strictly confidential and will not be mentioned in any resulting reports or publications.	Yes	No
I understand that if my son/daughter says something that suggests that they or someone else might be at risk of harm, the researcher may need to disclose this to a relevant third party, such as a supervisor and the school designated safeguarding lead.	Yes	No
I would like for the Trainee Educational Psychologist to contact me with a summary of findings, once the report has been written.	Yes	No
Name:		<u> </u>
Signature:		
Date:		

**Data Protection Notice:** There is some important information we have to tell you about the way we will use the information you provide during this project. This information is explained fully in the UCL Research Participant Privacy Notice, which you can access at: <a href="https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice">https://www.ucl.ac.uk/legal-services/privacy/ucl-general-research-participant-privacy-notice</a>. This explains how our UCL Data Protection Office oversee UCL activities in which personal data are processed. If you want to contact them, or if you have any concerns about the way your personal

# Consent sheet for children and young people

#### Who am I?

My name is Foteini and I am a researcher at UCL Institute of Education. I study Educational Psychology. Educational Psychologists work with children and young people, parents and teachers to help pupils get the most out of school.

# What is this study about?

I want to know if children and young people who believe that they can control their emotions, deal with their emotions differently from children and young people who believe that it is not possible to control strong emotions.

I want to find out if this affects how children and young people manage their emotions in different situations in school and at home, and if it affects how children and young people feel in general. Knowing this can help us support more children and young people who struggle emotionally.

# What does this study involve?

If you decide to join this study, you will fill a 10-minute-online questionnaire with questions about how you manage different emotions, and whether you experience any worries and anxieties in school.

A few weeks after you have completed the questionnaire, I may contact you to participate in short telephone or WhatsApp (messenger) conversation to ask you some more questions about how you deal with different emotions. We can talk on WhatsApp if this is more comfortable than talking on the phone, it is your choice. This will take about 30 minutes.

This study is done remotely, this means that at no point will you be asked to meet with me face-to-face. If you don't have a computer or internet at home, do not worry. We can arrange with your school, to use one of the computers there.

# What will I do with your answers to the guestions?

All the questions and answers will be kept safe and secure with me. The only time I would tell someone about it is if I was worried about your safety.

At the end of the study, I can tell you what I found and learned if you are interested. There may be a short presentation or a leaflet with general information about what I found from the study in your school. Your name will not be mentioned anywhere in these.

# Will all my information be stored securely?

We will store all your information as securely as possible but – in any research study – there is always an element of risk. For example, if you choose to use WhatsApp to take part in the interviews, there will always be a risk of intrusion (e.g., by hackers). It's important to note that, whilst we will store any information you give us as securely as possible, you'll have to check how the owners of the software (WhatsApp) will store your information. You can do this by checking their data privacy notice, which should be available on their website. Please contact me if you want to discuss this any further.

# Do I have to take part?

No, it is up to you. Speak with your parent or carer about taking part in this study, and maybe other grown-ups you trust. You can also call me or e-mail me if you have any questions.

If you decide that you would like to take part, please let your parents know and they will tell me about it. Also, below there is a form to sign if you would like to take part. Even if you decide to take part, you can stop at any time, or ask me to delete your responses after you have completed the questionnaire and/or interview.

Put a tick by the answer you want:	
Yes, I want to take part in the study.	
No, I do not want to take part in the study.	
Your name:	
Your e-mail address:	
Date:	
If you would like to get in touch with me, please e-mail me here: me at	or call
Thank you!	
Foteini Platsia	

### **Local Data Protection Privacy Notice:**

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data, and can be contacted at <a href="mailto:data-protection@ucl.ac.uk">data-protection@ucl.ac.uk</a>. This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in our 'general' privacy notice: For participants in research studies, click here.

The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the 'local' and 'general' privacy notices. The lawful basis that will be used to process your personal data are: 'Public task' for personal data and' Research purposes' for special category data. Your personal data will be processed so long as it is required for the research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this, and will endeavour to minimise the processing of personal data wherever possible.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at <a href="mailto:data-protection@ucl.ac.uk">data-protection@ucl.ac.uk</a>

## **Appendix F: Online Questionnaire**

(set up on UCL Qualtrics)
Please fill in your name and e-mail address in the space provided (this information will only be used to identify students for a short telephone / WhatsApp conversation later on):
Select your gender below:
O Male (1)
O Female (2)
Transgender (someone whose gender identity is different from the one they were assigned at birth) (3)
Other (4)
O Prefer not to say (5)
How old are you?

Please rate how much you agree or disagree with the sentences below:

	Strongly disagree (1)	Somewhat disagree (2)	Half and half / Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Everyone can learn to control their emotions.	0	$\circ$	$\bigcirc$	$\circ$	$\bigcirc$
No matter how hard they try, people can't really change the emotions that they have.	0	$\bigcirc$	$\circ$	$\circ$	$\circ$
If they want to, people can change the emotions that they have.	0	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$
The truth is, people have very little control over their emotions.	0	$\circ$	$\circ$	0	$\bigcirc$

Please rate how much you agree or disagree with the sentences below:

	Strongly disagree (1)	Somewhat disagree (2)	Half and half / Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I can learn to control my emotions.	0	$\circ$	$\circ$	$\circ$	$\bigcirc$
No matter how hard I try, I can't really change the emotions that I have.	0	$\circ$	$\circ$	$\bigcirc$	$\bigcirc$
If I want to, I can change the emotions that I have.	0	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$
The truth is, I have very little control over my emotions.	0	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$

We would like to ask you some questions about your emotional life, in particular, how you control your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another; they differ in important ways. For each item, please answer using the following scale (text included at the start of the above questionnaire).

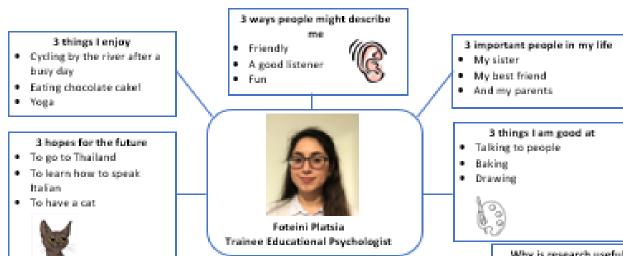
		Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
When I want to feel more positive emotions (such as joy or amusement), I change what I'm thinking about.	0	0	0	0	0	0	$\circ$	0
I keep my emotions to myself.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I want to feel less negative emotions (such as sadness or anger), I change what I'm thinking about.	0	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I am feeling positive emotions, I am careful not to express them.	0	$\bigcirc$	$\bigcirc$	$\circ$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.	0	$\circ$	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I control my emotions by not expressing them.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I want to feel more positive emotions, I change the way I'm thinking about the situation.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I control my emotions by changing the way I think about the situation I'm in.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I am feeling negative emotions, I make sure not to express them.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
When I want to feel less negative emotions, I change the way I'm thinking about the situation.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Here is a list of things that happen to people and that people think or feel. Read each sentence carefully and tick the one word that tells about you best, especially in the last two weeks. There are no right or wrong answers.

	Never (1)	Sometimes (2)	Often (3)	Always (4)
I worry someone might hurt me at school.	0	0	$\circ$	$\circ$
My dreams scare me.	0	$\circ$	$\circ$	$\bigcirc$
I worry when I am at school.	0	$\circ$	$\circ$	$\circ$
I think about scary things.	0	$\circ$	$\circ$	$\circ$
I worry people might tease me.	0	$\circ$	$\circ$	$\bigcirc$
I am afraid that I will make mistakes.	0	$\circ$	$\bigcirc$	$\bigcirc$
I get nervous.	0	$\circ$	$\circ$	$\circ$
I am afraid I might get hurt.	0	$\circ$	$\circ$	$\circ$
I worry I might get bad grades.	0	$\circ$	$\bigcirc$	$\circ$
I worry about the future.	0	$\circ$	$\circ$	$\circ$
My hands shake.	0	$\circ$	$\circ$	$\circ$
I worry I might go crazy.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$

	Never (1)	Sometimes (2)	Often (3)	Always (4)
I worry people might get mad at me.	0	$\circ$	$\circ$	$\bigcirc$
I worry I might lose control.	0	$\bigcirc$	$\circ$	$\circ$
l worry.	0	$\bigcirc$	$\circ$	$\bigcirc$
I have problems sleeping.	0	$\bigcirc$	$\circ$	$\bigcirc$
My heart pounds.	0	$\bigcirc$	$\circ$	$\circ$
I get shaky.	0	$\bigcirc$	$\circ$	$\circ$
I am afraid that something bad might happen to me.	0	$\bigcirc$	$\circ$	$\circ$
I am afraid that I might get sick.	0	$\bigcirc$	$\circ$	$\circ$

### Appendix G: Researcher One-page Profile for Children and Young People



#### What do I do?

Trainee Educational Psychologist. As part of my training, I carry out research for matters. important for children and young in schools. Educational Psychologists generally work with children and young people, parents and teachers to help pupils get the most out of school.

#### It is Important for you to know

I know sometimes it is difficult to talk/write about your thoughts and feelings, but it is your right to have a say. It is hoped that with this study we will learn more about how to help children and young people manage anxiety and other emptions in school.

Whatever you say in the questionnaires/interviews will be completely anonymised and only used for research purposes.

#### Why is research useful?

it can help us understand complex situations (e.g. how we manage emotions), and can directly and indirectly improve the lives of those researched as well as the lives of others in similar situations.

For example, previously II carried out research that helped secondary schools looked Support students with their learning.

### **Appendix H: Review of Qualitative Data Analyses Approaches**

A number of qualitative data analyses approaches were reviewed in relation to the study aims and research questions prior to concluding that TA is the most suitable. The Grounded Theory framework, was considered due to its data driven approach towards data analysis; however, it was deemed inappropriate as the use of themes derived from the data to develop a theory (Strauss & Corbin, 1990) contradicts the current study's purpose to instead enrich our understanding of an already existing theory (process model of emotion regulation, 2015). Conversation Analysis, which constitutes another inductive approach was also considered; its focus on understanding interactions occurring in a natural manner through interpreting all features of the data (Hutchby & Wooffitt, 2008) seemed incompatible with the research questions explored here; apart from the instant-messenger interviewing which may limit the interaction features available for analysis, the qualitative arm of the present study aimed to rather identify patterns occurring within and across the dataset which related to the students' experiences of intra- and inter-personal emotion regulation processes. TA, as a more flexible approach, not only in relation to data collection methods and research questions, but also with regards to theoretical and epistemological positions (Braun & Clarke, 2006; Clarke & Braun, 2017), seemed more fitting to the present study's aims.

Appendix I: Sample Coded Transcript, Code Grouping, Theme Search and

Review

Sample Coded Transcript (Phase 1 and 2 of Thematic Analysis)

Codes represented in red

[13:06, 17/02/2021] Researcher: If a question makes you feel uncomfortable, we can skip it or

you can have a think and get back to me later. Also, if you later decide that you would rather

not have your answers used in this research, you can let me know and I will delete them.

[13:06, 17/02/2021] Researcher: Any questions?

[13:07, 17/02/2021] XXXXX: No, I understand everything

[13:07, 17/02/2021] Researcher: great

[13:08, 17/02/2021] Researcher: I am going to give you a scenario of a person feeling anxious

in a school situation. As you read this, I want you try and imagine being in that person's

position. Then we will talk about it. Also have a look at this gif to help you visualise it

https://media.giphy.com/media/IJOhsRkLDIWyIDpAPG/giphy.gif

[13:08, 17/02/2021] Researcher: John recently had to do a project for 'Technology and Design'

and he worked very hard on it. He got a really good grade and his teacher keeps praising his

performance. The headmaster has now asked John to share a short presentation about his

project in front of the whole school. John is already feeling sick.

[13:09, 17/02/2021] Researcher: Has anything like this or similar to this ever happened to you?

And if yes, could you tell me a little bit about it?

[13:11, 17/02/2021] XXXXX: Yes, I've had to give presentations to classes and year groups

before. In the classroom I usually volunteer to do it. Confidence in familiar environments

[13:11, 17/02/2021] XXXXX: I usually get nervous doing it to the year group or school though

as I'm not familiar with them. nervous in unfamiliar contexts

[13:12, 17/02/2021] Researcher: Yes I get that

[13:13, 17/02/2021] Researcher: So when you have to give a presentation to a whole year

group or the school how stressful would you say you find it?

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[13:15, 17/02/2021] XXXXX: When we had to give the presentations to the year groups/school, it had to be on subjects I didn't really understand or wasn't passionate about, so I found it quite stressful as I was confident with what I was talking about. Lack of control, unfamiliar contexts And with being in front of lots of people made me really uncomfortable. I was able to calm myself down as I got through it and got more comfortable, but at the start I couldn't help myself from being nervous. Anxiety better with exposure, as time goes by

[13:17, 17/02/2021] Researcher: This makes a lot of sense, thanks for sharing this. Now thinking a bit about a specific presentation you had to give to other year groups on a subject you weren't very passionate about, was there anyone present that made you feel better or worse in that situation? Did they do anything?

[13:18, 17/02/2021] XXXXX: I think doing the presentation with my friends made me feel better, because it wasn't that serious if they were there and if I made a mistake I could just laugh about it, but I think that was it. emotional support from friends, others being supportive

[13:21, 17/02/2021] Researcher: I see how having your friends around you could make it a bit more comfortable. Was there anything else going around you that made things better or worse?

[13:22, 17/02/2021] XXXXX: Yes it was in an assembly hall, we were stood on a stage with everyone else sat down. I think that made me more uncomfortable as I couldn't do anything about it and everyone was looking at me lack of control over assembly hall set up

[13:23, 17/02/2021] Researcher: I see, I get how this would be uncomfortable. In general, how can others change the environment to make things better when you are feeling anxious?

[13:26, 17/02/2021] XXXXX: In the assembly situation, I'm not really sure how I could feel less anxious as it's just a personal fear of talking to lots of people, but I think if I had less lines or something in the presentation I would feel better. In general, when I'm really anxious I like to listen to music, and to be comfortable and not surrounded by lots of people. Distraction and calming activities when little control over situation/high anxiety

[13:27, 17/02/2021] Researcher: I get that. Is there anything that people do in general that makes you feel better or worse you when you are stressed/anxious?

[13:30, 17/02/2021] XXXXX: When I'm stressed I get more frustrated when people are loud, and there are lots of people around. Things that make me feel better are probably people leaving me alone for a while, or just being with my friends. quiet calm environment, in the presence of trusted others

[13:31, 17/02/2021] Researcher: Ah okay, so noisy crowded places can make it a bit worse. And you said being with friends helps... when you are anxious, do you look for help from others/ friends?

[13:34, 17/02/2021] XXXXX: When I'm anxiou I think I usually just go off on my own somewhere to calm down, but it's usually visible when my mood changes so people who know me notice which can be nice. Others being in tune with his needs, noticing facial expressions. I'm not used to asking people for help, but I've started doing it recently though by emailing my teachers about how I feel. Asking for help in non-threatening ways. I don't usually look for help because sometimes I feel like I'm overreacting or my reason for being upset isn't valid. Anxiety not valid. But when it gets really bad I have told my teachers. Help as last resort.

[13:35, 17/02/2021] Researcher: Okay, I see so it's a recent thing you are trying when you've kind of tried to deal with your feelings by yourself and it didn't work so then you get in touch with a teacher.

[13:36, 17/02/2021] XXXXX: Yes, I have tried speaking to teachers to see if they can help me change my feelings in the long term rather than how I fixed them temporarily. motivated to find long term solutions to managing anxiety to find things that I can use in the future when I feel the same and prevent me feeling as bad I have. Preventative support, looking for ways to improve mental health

[13:38, 17/02/2021] Researcher: I see

[13:39, 17/02/2021] Researcher: So you've already talked about a few different things that you do when you get stressed (e.g. listening to music, thinking together with a teacher about things to prevent you from feeling stressed, being in a quiet space, being with friends). I will now tell you about some other things people do to deal with stress and anxiety and ask you to think if you've ever done these too.

[13:39, 17/02/2021] Researcher: So some people do not attempt to deal with/acknowledge any arising emotions (e.g. they think 'it's pointless, I cannot change my emotions') when they are starting to feel anxious. Is this something you do?

[13:41, 17/02/2021] XXXXX: I kind of do that, I don't think I can't change my emotions but I sometimes feel like it's easier to just be sad and stressed than put effort into changing it. Effortful to change his emotional experience

[13:42, 17/02/2021] Researcher: I understand, and how often do you do that? Could you give me an example of a situation where you've done this?

[13:43, 17/02/2021] XXXXX: I feel like I do it quite often. Instead of getting up and doing simple things like cleaning my room or getting dressed to make myself feel better, I will just lie there and sleep or something. Avoidance, disengagement easier. EE effort over effectiveness

[13:45, 17/02/2021] Researcher: Yes I see. I know before you said you don't think you can't change your emotions, do you think that you can control your anxiety/stress in particular if you try to?

[13:48, 17/02/2021] XXXXX: I personally feel like I can change how I feel, maybe not doing a full turn around and feeling good again, but I feel like just being organised, tidy and taking care of myself makes me feel better. Such as getting up early, going for a walk, tidying my room etc are ways I can prevent myself from getting stressed, and are ways I can make myself feel better. emotion controllability, aware of healthy strategies and lifestyle changes to promote wellbeing

[13:49, 17/02/2021] XXXXX: But sometimes how I feel is just how I feel. Personally, I can change how I feel when I'm stressed if something has happened which has upset me (an argument, bad grade etc), but there are some days where I just wake up and for some unknown reason I feel bad, and I cant change it. Can control emotions but not always

[13:50, 17/02/2021] Researcher: Yes I get that, it differs from day to day. Is there anything that makes it better or worse/more or less possible to control?

[13:51, 17/02/2021] XXXXX: Usually the less anxious or stressed I am, the easier it is for me to change how I feel. Controllability of emotions dependent on intensity of emotion If I'm really upset or stressed, I just feel tired and I don't want to put the effort into doing things to make me feel better. High stress, less able to employ emotion regulation strategies changing the experience of emotion

# Example of gathering and reading initial codes without grouping / immersion into the data (Phase 2 of Thematic Analysis)

Overthinking/anxiety affecting thoughts, Easier to manage physiological symptoms of anxiety than thoughts, not being the only one performing, emotion contagiousness, Catastrophising/being paranoid about how others view you, misinterpreting social cues when anxious, toy/anti-stress ball for physiological signs of anxiety, stress is in the body, Management of physiological symptoms decreases stress, Dealing alone or joining others in the same situation, less alone/togetherness, Normalisation when with others with same emotions, expression of anxiety equals embarrassment, asking for

support is embarrassing, high emotional intensity means not processing emotions avoidance, distraction, disengagement, anxiety is a lonely experience, shame around the experience and expression of anxiety, others not recognising needs - unnecessary advice, need for emotional offload, anxiety means vulnerability in front of peers, trying to reappraise/reflect/think back can lead to feeling worse and focus on negatives when high intensity, emotion regulation effort over effectiveness, easier to feel 'miserable' than try to change experience of emotion, not asking for help because it's anxiety is shameful, Easier to resort to tried strategies, 'letting it out' when nothing else works high intensity requires diffusion of anxiety, Distraction and avoidance when nothing works, conscious of scanning for threats, Breathing difficulties and body tension, Breathing exercises, teachers not conscious of needs – not asking for help, feeling alone in class. Lack of control in presentation, more effort to use re-appraisal, Physiological signs of anxiety overtake, thinking affected, need for visuals when anxious, trusted others calming anxiety symptoms by being present, reassurance and encouragement from trusted other, Memory affected when anxious, more stressed when 'all eyes you', Less attention on the individual, being part of a group makes it better when anxious, noise and others talking and laughing disrespectful vs reassurance and support - teacher classroom management, teachers recognising needs and making class changes, empathy promotes help seeking behaviours, Lockdown and adapting emotion regulation to the new context, lack of availability of strategies in certain contexts, distraction through music so anxiety doesn't escalate when high intensity, more anxious about change, and things outside of control – lack of control, regulation harder, support from friends includes empathy, and good advice, good listening skills, talking to empathic others when upset, friends proactively checking in, Overthinking / thinking the worse before stressful events, not as scary during the stressful event, does not want to engage in avoidance but uncontrollable when highly anxious, Less control when highly anxious, high emotional intensity affecting effort, easier to not process information when highly anxiety, sticking to known strategies, Advice from 'friendly friends' to manage anxiety, others being approachable encourages asking for help, when highly anxious only well practiced strategies, motivated to feel good, Trusting relationships prerequisite for asking for help, help depending on own strategy efficiency, help last resort, anxiety brings feelings of shame, previous experience guiding emotion regulation decisions, Strategy selection more difficult when high intensity of emotion or little control on the stressful situation, more open to new strategies when less anxious, need to adapt to the context - Using friend to alleviate anxiety in social situations that trigger stress, sleep as avoidance/not processing emotion when highly anxious, fast breathing- Physiological, thinking everyone is judging- cognitive signs of anxiety, motivated by long-term wellbeing.

# Code Sorting Example, and Illustrative Excerpts Sorting - Searching for Themes and Reviewing Themes (Phase 3, 4 and 5 of Thematic Analysis)

	Being proactive in offering help
	Reading my anxiety cues
Access to attuned other	Responding empathically
	Practical advice
Positive impact on different stages of emotion regulation  Connection	Regulation of physiological needs through
	interpersonal contact
	Problem-solving
	Reflecting together following emotion
Connection	regulation
	Recognising benefits of interpersonal
	support

	Creating a calm classroom atmosphere
	Recognising need for quiet and calm when
Classroom management	highly anxious
	Interactive teaching methods
Changes to the environment in	A relaxed and friendly atmosphere
response to student need	Trusting students
	Academic and emotional needs viewed
Accommodating togehore	alongside each other
Accommodating teachers	Giving students control
	Structure and predictability provide a sense
	of safety

Theme (No of codes)	Subtheme (No of codes)	Illustrative Excerpts
Manifestations of	Physiological signs of	- Interviewee: Um both I feel it in my body and my mind.
anxiety (32)	anxiety (25 codes)	- Interviewer: Okay, could you give me an example of howhow does it feel in your body?
		- Interviewee: Um is just like my adrenaline goes upI am sweaty sometime shakyheartbeat is fast.
		- Interviewee: When I'm stressed, I get a headache and feel dizzy or tired. I feel
		so drained. When I'm nervous, my heart beats fast and I feel sick.
		- Interviewee: if I realise what I'm doing I can usually make myself relax a bit
		physically. [] You just sort of realise you're hunching your shoulders and
		have to relax them. Helps realise where stress is in the body [] Yeah and
		when you sort of relax your body it stops some of the stress.
		- Interviewee: I don't know for sure if it's that I might just get stressed but doing
		the same stuff I do if I have an asthma attack usually helps.
		- Interviewee: Um just feeling like, extremely worried, to the point where it kind
		of makes you like, feel like physically ill or like, have physical problems.
		- Interviewee: Yeah, like, like, your heart beating faster, or like, like hand twitching, stuff like that.
		- Interviewee: my heart beats fast, i shake (specifically hands and legs), i find it
		harder to breathe, my head feels dizzy and my hands get sweaty sometimes
		as well.

	- Interviewee: I play the trumpet and have had to do performances in front of
	the school. When ive done it ive felt extremely nervous just before and during
	and shook all over but i get a buzz afterwards.
	- Interviewee: Personally, i don't remember feelings of anxiousness but I also
	remember doing such things as "word vomit" or fiddling a loot with my hands.
	[] i can't recall this every time but occasionally in times where my stress
	levels or anxiety levels are relatively high i do tend to feel dizzy or develop a
	headache.
	- Interviewee: When I feel nervous sometimes I find it hard to breath and my
	breathing gets very quick.
	- Interviewee: when i feel nervous and stuff i feel like confused, like my
	shoulders start feeling heavy, feel like someone is watching over me, and my
	stomach goes really weird, the only way i can describe the stomach feeling is
	like when you miss a step when coming down the stairs that realisation that
	you're going to fall is the only way like when your stomach drops. if that makes
	any sense at all.
Cognitive signs of anxiety	- Interviewee: And then mind, I just overthink.
(7)	- Interviewee: I feel like I think if the worst situation.
	- Interviewee: it's just sort of paranoia where if you see people laughing you
	assume they're laughing at you even though you know they're probably just
	talking to each other.
	- Interviewee: I also worry people will notice all the mistakes i made in it.

		-	Interviewee: i feel like they were only focused on me, we were allowed to
			make a powerpoint to go with it which helped a lot as it reminded me what i
			need to focus on and [] focus on pictures.
		-	Interviewee: Like I tense up automatically and start rewriting everything I'm
			going to say inside my head and then get annoyed when I say something
			wrong or that I think sounds stupid because I don't want to be embarrassed.
		-	Interviewee: like the night before i get really nervous then i dream about it and
			overthink massively, but then when i'm there i'm glad i went.
		_	Interviewee: Mentally I am overthinking it a lot.
Danas dia sa assas d	A Decide of the one	(0)	
Perceptions around	A Burden to Others	(8) -	Interviewee: I just (pause) don't like to bother people with the way I'm feeling.
Anxiety and Mental		-	Interviewer: In order to deal with anxiety, other people may fuss about what's
Health (19)			making them worried to a friend cry and feel sad and stressed for days. Is this
			something that you do? Interviewee: Nah. 'Cause, I don't knowI think you're
			kind of putting your problem on them. And then it's kind of their decision what
			to do next. So it's almost in you kind of telling them and kind of fussing about it
			to them, it's kind of making them feel worse. So, I just wouldn't really want to
			make anyone else feel worse and kind of put my problems on them.
		_	I've got my friends you know but I don't really talk about these things [] i
			dont want to burden others with how I'm feeling.
		_	Interviewer: Um another thing people do when they're feeling worried is they
			try and not show it on the outside, so they hide their emotions from others Is
			this something that you do? Interviewee: Um, I think so. Just because I don't
			want I don't want to burden other people with my feelings.

		- Interviewee: I just keep stuff to myself mostly. [] Um I have to really force myself. [] Um just to not bother other people so I push myself to do it alone.
Feelings of Shar	me (6)	<ul> <li>Interviewee: I thinklikepeople glorify mental health a lot and then they might just think that I'm attention seeking.</li> <li>Interviewer: and why is it that you try to physically hide it from others? Interviewee: I don't want others to see weaknesses in me (if I were to express my anxiety).</li> <li>When I first contacted my teachers, it was when I was at a really low point and nothing was making me feel better. I don't ask for help when I'm feeling okay, but I feel like when I get stressed out I'm overreacting, or that it's not a valid reason,</li> <li>Interviewee: Usually if I'm alone I'll do whatever but if I'm with other people I don't want to be bursting out into tears or something. I don't want to be embarrassed if I start having a reaction or something</li> <li>Sometimes I try and hide it, but I don't really hide it by acting happy etc, I usually hide myself. Like in my room or go on a walk or something so people can't see me. When I'm at school and I'm stressed in a lesson I start crying or going red, which is embarrassing but I can't really help it. Hiding it makes me feel worse.</li> <li>yes i definitely try to hide my feelings and keep to myself as i do not like talking about how i feel, it can be quite embarrassing.</li> </ul>

A Lonely Experience (5)	- Interviewee: I guess I feel more comfortable. Knowing that people have felt
	the same way as I have, but even then I still feel kind of alienated. I'm not sure
	why, I think I feel like nobody has really listened or understood how I actually
	feel. Like venting to people, or knowing people who have been through what I
	have doesn't really inspire me or make me feel comfortable. I still feel kind of
	distant and different.
	- Interviewee: Not really, I don't really know how others deal with it Interviewer:
	and why is that? Interviewee: I don't really feel like my friends are anxious or
	at least they don't really show it, it's probably just me.
	- Interviewee: I feel like people would not really care And there's not much
	they can do (if I told them) especially if it is like an exam.

Qualitative data for	r RQ4: What reasons do a	dolescents give for using certain strategies more frequently than others?			
Theme (No of	Subtheme (No of				
codes)	codes)	Illustrative Excerpts			
Individual factors	Personal motives (9)				
(affecting emotion		- Interviewee: When I get stressed with school (more so now because of online			
regulation choice)		school) I just don't do it. Which is really bad because I have like lots of late			
(30)		assignments but I feel better mentally when I don't do it.			
		- Interviewee: Um, I wouldn't not go to the event. But I'd probably try and pretend			
		it's not gonna happen, just like to keep my mind off it [] talking to friends,			
		watching Netflix [] it kind of just kind of separates the emotions like out. So, it			
		just kind of calms down like my anxieties, replacing them with more like positive			
		feelings.			
		- Interviewee: i am a street dancer who has done many shows and taken part in			
		competitions and when im nervous i do tend to have coping mechanisms []			
		that's also in any circumstance for example, waiting for results for college			
		applications etc. not just things such as being in front of a crowd [] my many			
		'mechanisms' -for like of a better term- enable me to be able to continue and			
		not be totally anxious and took over by these feelings of nervousness.			
		- Interviewee: I had mentally prepared beforehand by telling myself that i had			
		worked hard to this point and had practised a lot and focused on the music			
		instead kf (of) the audience.			

	- Interviewee: yes, to some extent. using the exam hall example again, imaging
	the feeling of getting a good result if i could manage to focus and complete the
	exam. if i do this [] I do better in the end as a result.
	- Interviewee: Yes, I do try and think about the positives and also how relieved I
	will feel when it all over. Interviewer: How often do you do that? Could you give
	me an example of a situation that you tried to think about differently?
	Interviewee: Sorry I keep thinking linking back to exam times but it what I get
	most stressed about but I do definitely think like stick with it, study now, and it
	will be nice once my exams are over and I can celebrate with my friends and
	have a good time.
	- Interviewee: [] trying not to think about it calms me to get through it better.
	- Interviewee: i like to think i can change how i feel through the medium of finding
	positives or finding a "happy place" with music or my comfort tv show. to me,
	doing this is not enabling the arising emotions to take over me which is
	something that I would not willingly let happen.
Anticipated effort (11)	- Interviewer: You mentioned a few things already, like getting reassurance from
	your teachers and friends, talking to others and kind of seeing how others deal
	with their anxieties. um generally, how easy or difficult do you find it doing these
	things when you are anxious? Interviewee: I think it's quite easy, because I've
	done it a lot.
	- Interviewee: I find it fairly easy to do it becajse (because) i ve done it again
	(referring to breathing exercises).

	- Interviewee: I don't know if I control it (my anxiety) I sort of procrastinate on it.
	So I sort of bottle it up and then get upset about it later if that makes sense []
	I think it's quite difficult for me to do things to make myself feel better []So I
	usually try and stay sad I guess. I find it easier to just be sad than put effort into
	feeling better.
	- Interviewee: I think I just find it kind of difficult to do that, because you're almost
	in a like trying to put something on that you're not, like all the time. So I think
	that would be kind of difficult to do.
	- Interviewee: sometimes i do feel like i cant or it's really hard (to) change how (I
	am) feeling so i do just let myself feel bad. Interviewer: Yeah I get that, do you
	have an example of a situation where you did this? Interviewee: when i was
	nervous to go to school i used to not do anything to try and help me feel better
	and so would end up at school still feeling really (nervous) or i wouldn't go at all.
	- Interviewer: Others may sometimes think about the possible positive outcomes
	before an event that makes them upset. Is this something that you do?
	Interviewee: Yeah I usually try and find a plus in it but sometimes I just like to
	wallow in my misery! Interviewer: I see, and do you have any idea why you
	sometimes prefer to as you say wallow in your misery rather than try and
	change how you feel perhaps? Interviewee: Easier and makes me feel better!
Perceived effectiveness	Interviewed, if i attempt to think about it positively or poutrelly i and thinking
	- Interviewee: if i attempt to think about it positively or neutrally i end thinking
(10)	about the worst possible outcome it is something I've tried multiple times in
	situations and it has never helped so i haven't tried again in a while.

- Interviewer: Some people do not attempt to deal with/acknowledge any arising emotions (e.g., they think 'it's pointless, I cannot change my emotions'). Is this something that you do? Interviewee: yes, i do this a lot with school work at this point in time as i think that teachers most likely aren't going to collect it in as they didn't last time. Interviewer: I see, and how often would you do this? Interviewee: i done it a lot more at the end of the 1st lockdown but i'm doing it less as now but i still do do it sometimes but i'm trying to (put) more effort this time round as i may have to do GCSEs soon.
- Interviewee: i do sometimes avoid situations that I'm anxious about but i do try not to because it makes things worse the next time have to do that thing.
- Interviewer: Yes, I see. In order to deal with anxiety other people try to not think about the situation that's making them anxious or even avoid the situation (e.g. not sit an exam). Is this something that you do? Interviewee: Um no not really because I always feel like I have to do it later on, as once I said I was unwell for my Spanish tutor, but I had to do it a couple days later.
- Interviewee: So yes, I tend to ignore or not think about the situation... I fix them (my emotions) temporarily[...] But obviously ignoring things means I'm inevitably going to have to re-encounter it in the future, which is why I've been contacting my teachers to find a long-term solution[...] I have tried speaking to teachers to see if they can help me change my feelings in the long term rather than how I fixed them temporarily[...] to find things that I can use in the future when I feel the same and prevent me feeling as bad/low (as) I have.

		<ul> <li>Interviewee: [] sometimes you have to do the things you don't want to do the most to overcome that and be in a better mindset to complete something of the sort in the future. again using exams as an example, at my school it tends to be exam week, by the end of the week the last exam feels easier to complete than the first. also using dance competitions as an example. my first example was difficult, caused a lot of worry or stress, however if i was to start working towards and preparing for a competition now I would feel more prepared and relaxed.</li> <li>Interviewer: So some people don't even attempt to deal with or acknowledge</li> </ul>
		any arising emotion. So for example, they think it's pointless, I cannot change my emotions. Is this something that you do when you're anxious? Interviewee:  No, 'cause I think you're kind of just avoiding the problem. Because you're kind of just putting it aside. And it's just not gonna get any better.
Contextual factors (affecting emotion regulation choice) (17)	Emotion intensity (11)	<ul> <li>Interviewer: Okay. And does it matter if you're feeling very anxious or only a little? Or can you generally, as you said, control your anxiety before the stressful event takes place? Interviewee: Um it's harder if I'm feeling more anxious.</li> <li>Interviewee: When I'm only feeling a bit anxious, they (the aforementioned strategies) come quite naturally however if I'm feeling very anxious or it's hit me out of nowhere i do need to push to try and help myself.</li> <li>Interviewee: Usually the less anxious or stressed I am, the easier it is for me to change how I feel.</li> </ul>

- Interviewee: If I'm really upset or stressed, I just feel tired and I don't want to put the effort into doing things to make me feel better.
- Interviewee: Its easier to control when there is (is) little but when there is a lot of stress it could take a while to disperse.
- Interviewer: and when you are anxious are you more likely to try a range of things to make yourself feel better (e.g., before you said you listen to music, talk to a friend, and make a pros and cons list) or just one thing that you've tried before and you know works well? Interviewee: It depends how anxious i'm feeling if it's like we're (where) i'm at like weekly then most definitely try new things but if i'm really anxious then i just like to put my speaker on and just calm myself down as i know that always works.
- Interviewee: Um I think sometimes things don't work out. But usually, like, my techniques will like make a difference. Interviewer: Yes. Okay, I see. And what does it depend on if your techniques will make a difference or not? Interviewee: Um if I'm feeling really anxious, then it probably won't make like much of an impact.
- Interviewer: In order to deal with anxiety other people may also fuss about what's making them worried to a friend, cry and feel sad and stressed for days; Is this something that you do? Interviewee: No i find that a bit pointless and a waste of time. Interviewer: Ah okay, and in what way do you feel it is a waste of time? Could you explain this a bit more to make sure I understand? Interviewee: I find that distracting yourself from the actual thing by doing other thinfs (things) helps a lot better if its serious.

		Interviewee: like the morning of we were meant to go to a concert but i chose that morning that i wasn't going to go as i get too nervousif i get too stressed then i will definitely avoid it like meeting with friends i have cancelled because i can't not stress about it, like i used to get very stressed at sleepovers i'd have to get my nan to pick me up and 3ish in the morning as i get really nervous.
	Strategy-situation fit (6)	<ul> <li>Interviewee: this is gunna sound really weird but like paying at a shop like i don't know why i get anxious about it but like i feel so under pressure to put all my stuff in my bag i get nervous people behind me will get mad if i'm not quick so also like I have them (my friends) behind me in the queue as then i know they won't be mad that I'm not the quickest as putting my stuff in my bag.</li> <li>Interviewee: in situations like an exam hall, there is little to no way to resolve these feelings, usually talking it out helps me but I can't in that circumstance. i focus on the positive - ie that parts of the exam which I can complete and complete well.</li> <li>Interviewee: [] especially during unprecedented I've found that some days I'm allowed to not put on a brave face and just not show my 100% for a day.</li> </ul>
Interpersonal factors (affecting emotion regulation choice) (3)	Emotion Contagion (3)	- Interviewer: Is there anything in general that people do that makes you feel better or worse when you are worried or anxious? Interviewee: Yeah, It's probably just everyone's mood. Because I think if someone's in a bad mood, it's going to kind of put you in a worse mood. And if someone's in a good mood, it's going to put you in a better mood. So I think it's just kind of everyone else will kind of affect me in particular [] like after an exam if someone's like, kind of in

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**Qualitative data for RQ5**: Which interpersonal processes do adolescents perceive as helpful/hindering in the generation and regulation of anxiety?

Themes (No of	Subthemes (No of	Illustrative Excerpts	
codes)	codes)		
Emotionally containing	Access to attuned	- Interviewee: i definitely try and be around others. if possible, my mum as I'm	
environments (34)	others (17)	closest with her. Interviewer: And what is your mum like that makes you want	
		to be around her when you are worried? Interviewee: she's very	
		understanding and knows when i need to talk or just hug. she is also very	
		patient with me and doesn't force me to talk when I'm not ready.	

- Interviewer: Um and what are these people like that makes you want to be around them when you feel a bit anxious? Interviewee: I think they, them just being really friendly and like, knowing me, so like they'd be able to tell like I am anxious or they'll be, they'll probably know the right thing to say.
- Interviewee: i like having a couple of hours (at most one day) of letting out my worries then im most often back to my normal self. Interviewer: And could you explain a bit more how you go about letting out your worries? Interviewee: talking. not always openly. sometimes my parents prompt with questions. my family and closest friends know when im not quite myself. i am quite a hyper active talkative person so on the 'down days' where perhaps i do feel more anxious and stressed, the people who know me are quick to notice.
- Interviewee: [...] i talk to my friends when i'm upset Interviewer: I see, how often do you have a chat with your friends about what's upset you?

  Interviewee: i talk to my friends around 3ish in the morning as then my family are asleep the last time was last night, they know that when i'm upset they will message me as they know i'm more likely to get more upset acc saying out loud.
- Interviewer: And thinking about this specific trumpet performance again, was there anyone present that made you feel better or worse in that situation? Did they do anything? Thinking about your peers, teachers and parents.

  Interviewee: My grandparents were at the performance and i saw them at the end so I told them how i felt about the performance and the mistakes i made

- as i felt I could have done a lot better but they helped me see that it didn't matter and they still thought it sounded good.
- Interviewer: Thinking about that specific situation again, was there anyone present that made you feel better or worse? Interviewee: Um, it was nice, having like, support from my friends. So that helped. Interviewer: Okay, so your friends were there as well? Did they do anything specific that helped? Interviewee: It's kind of reassuring words and stuff. Interviewer: Ah I see. Okay. And how did that help? Interviewee: Just kind of toned down the situation a bit, made it feel more manageable.
- Interviewee: (when anxious) i always get more hugs from family members (and friends before covid) ... physical contact i.e holding hands, a hug or even just like a pat on the shoulder. this reminds me I'm not alone.
- Interviewee: ...my boyfriend it's someone I trust a lot and makes me feel safe and I don't think about the thing that make me anxious.
- Interviewee: If I say something to someone I trust in my year, they'll probably say, Oh, yeah, I'm kind of feeling the same thing, soooo, helps you know.
- Interviewee: They don't generally do anything I just don't like getting upset in front of people. Or I'll tell someone (like my mum) what's happened and she'll start offering advice when all I really wanted was to get it off my chest.
- Interviewee: I often avoid being around others when i am stressed now ... I avoid being around others all together but especially my sister as she reacts a lot and knows how tl (to) annoy me. My mum also as somethmes (sometimes) when shd (she) tries to help it feels like she is interviewing me.

- Interviewee: nothing or no one made me feel worse - sometimes i think in
these situations you could do without some people in that circumstance but
wouldn't go as far to say they made me feel worse. [] all I could say is that
there actions at this time included being overly negative or being overly bub
and kind and constantly repeating "it's going to be okay" or "you've got noth
to worry about" it'd be ideal if they were removed from that situation.
- Interviewee: my teachers in classrooms, do tend to have a social and friend
environment almost describable as a family atmosphere which is something
my teacher had said himself. in this case in classrooms i do feel fine and
content and able to work well. side note: hence why teacher assessed grad
in the current climate will benefit me and not performing well in exams which
some of my teachers are aware of and commented on that at a recent pare
evening.
- Interviewer: In general, is there anything that others can do to change the
environment to make things better when you are feeling anxious? Interview
I think like allowing talking with friends does help because if I was in a really
quite (quiet) class I would really over think everything and get more stresse
but just not in big groups and lots of noise.
- [] when it's extremely quiet - using an example of a school hall with exam
tables all set out and I'm on my own desk that sometimes causes extra
tension within me. i do tend to work/perform/be better when the teacher has
like a talking or social environment. maybe because i have less motion arou
into a taining of occide criviciment. Maybe because I have less motion and

- Interviewer: And how about the environment around you (I am guessing this took place in your classroom)? How was that? Did the people present make any changes to the room that helped or made things worse? Interviewee:

  Once I had to do a speech about a chosen topic in front of my class at school[...] I found it very stressful, I found it very hard [...] it was in the classroom and and I think it would have been peaceful if the teacher put music before but instead there was like a wheel with all our names on and whoever it landed on it was there (their) go so everyone was really noisy.
- Interviewee: Um, I think my teacher gave us like a few minutes to prepare, just to like, calm down and that sort of thing, which helped.
- Interviewee: the majority of my stress and problems stem from school and the stress of completing exams which unlucky for me has taken place in these times of a pandemic.

### **Appendix J: Supplementary Analyses**

Supplementary analyses: Predicting anxiety from emotion controllability beliefs and emotion regulation strategy use. A set of five simple regression analyses were performed in order to predict adolescent anxiety symptoms based on their emotion controllability beliefs and emotion regulation strategy use. The regression equation examining the relation between adolescents believing that people could control their emotions (scoring high on general emotion controllability beliefs) and anxiety symptoms experienced was significant, F(1, 79) = 16.40, p < .001, explaining 17% of the variance in anxiety symptoms. Further, adolescents believing that they could control their emotions to a large extent (scoring high on the personal emotion controllability beliefs scale) was a significant predictor of lower levels of anxiety, with personal emotion controllability beliefs accounting for 34% variation in anxiety symptoms reported by adolescents.

The regression equation examining the use of reappraisal and adolescent reported anxiety symptoms was also found to be significant, F(1, 79) = 17.36, p < .001. The use of reappraisal by adolescents was inversely related to anxiety symptoms, and explained 18% variance in adolescent anxiety symptoms reported. Conversely, the use of suppression to regulate emotion predicted higher levels of anxiety symptoms. The regression model examining this relationship was significant, F(1, 79) = 4.08, p = .047, and accounted for 22% variation in adolescent reported anxiety symptoms. Beta and significance values are presented in Table 12.

Table 12
Summary of linear regression analyses for variables predicting anxiety

Variable	В	SE B	β	
Age	.08	.08	0.11	

General	emotion	37	.09	42***
controllability beliefs				
Personal	emotion	40	.06	59***
controllability beliefs				
Suppression Use		.11	.06	.22**
Reappraisal Use		24	.06	42***

Notes. N = 81; \*p < .05, \*\*p < .01, \*\*\*p< .001.

In order to further understand the predictive validity of each variable, a series of hierarchical regression analyses examining the unique variance explained by emotion controllability beliefs and emotion regulation use in anxiety symptoms were conducted. In hierarchical regression, previous research findings and relevant theoretical models guide decisions about the order in which predictors are added into the model under examination. Independent variables expected to strongly predict the outcome variable are entered first followed by less important predictors (Field, 2017). Previous research has found that personal emotion controllability beliefs are a stronger predictor of mental health outcomes when compared to general emotion controllability beliefs (De Castella et al., 2013, 2014, 2018; Tamir et al., 2007), therefore in Model 3 which included both these variables these were entered in relevant order. Studies which have examined the links between emotion controllability beliefs, emotion regulation strategy use (frequency of reappraisal and suppression use), and psychological health outcomes, have shown that emotion controllability beliefs are more often significantly associated with psychological health outcomes via cognitive reappraisal than via expressive suppression (e.g., see Tamir et al., 2007), and therefore suppression use was entered last in all three regression models. Also, in line with Gross' process model of emotion regulation (Gross, 1998a), as cognitive reappraisal is considered an antecedent-focused strategy it is expected to take place before emotion responses have fully unfolded; suppression, a response-focused strategy, takes force when the emotion has already evolved and behavioural actions have been initiated, only having an impact on the expression (rather

than the experience of emotion), and therefore being considered a less effective emotion regulation strategy. Finally, in all three hierarchical regression models emotion controllability beliefs were entered before emotion regulation strategies in accordance with Gross' extended process model which posits that emotion regulation is a second order valuation system and emotion controllability beliefs can exert control on each stage of the emotion regulation process (Ford & Gross, 2018). As age was not a significant predictor of anxiety symptoms, it was not considered in these analyses.

In the first model, the general emotion controllability beliefs scale was entered first, followed by reappraisal use in the second step, and use of suppression in the third and final step. Interestingly, adding reappraisal use to the model significantly increased the model's predictive capacity, above and beyond the variance general emotion controllability beliefs accounted for alone. Conversely, when controlling for general emotion controllability beliefs and reappraisal use, suppression did not account for significant variance in anxiety symptoms reported by adolescents. The overall regression model predicted approximately 25% variance in adolescent anxiety symptoms, and was found to be statistically significant, F(3, 77) = 8.41, p < .001. However, neither general emotion controllability beliefs nor suppression were significant predictors of anxiety symptoms, and the only unique contributor to the overall model was frequency of reappraisal use.

In the second model, the first step of the regression consisted of the personal emotion controllability beliefs variable, the variable of reappraisal use was added in the second step, and suppression use was entered in the third step. While personal emotion controllability beliefs significantly accounted for variance in adolescent anxiety symptoms, this was not the case for reappraisal and suppression use. The overall regression model accounted for 35% variance in anxiety symptoms experienced, and it was statistically significant, F(3, 77) = 13.92, p < .001, however it should be noted that personal emotion controllability beliefs explained unique variance on the anxiety measure over and above emotion regulation strategy use.

In the final model, the personal emotion controllability beliefs variable was entered first, followed by general emotion controllability beliefs in the second step, reappraisal use in the third step, and the suppression use variable in the fourth and final step. Similarly to the second model, personal emotion controllability beliefs accounted for significant variance in anxiety symptoms experienced by adolescents. When controlling for personal emotion controllability beliefs, the change in variance explained in anxiety based on general emotion controllability beliefs (Step 2) was minimal and non-significant. Further, when controlling for personal and general emotion controllability beliefs, reappraisal use (Step 3) did not account for any variance in anxiety symptoms reported by adolescents. Finally, when controlling for (personal and general) emotion controllability beliefs and reappraisal use (Step 4), suppression use failed to account for any variance in adolescent anxiety. The overall regression model predicted approximately 35% variance in adolescent anxiety symptoms, and it was statistically significant, F(4, 76) = 10.31,  $\rho < .001$ ; the only variable that explained unique variance on the anxiety symptoms measure was personal emotion controllability beliefs. Table 12 shows the  $R^2$  and F change, and the standardised coefficients (B) for all three models discussed.

Overall, while both general and personal emotion controllability beliefs as well as reappraisal use accounted for a significant proportion of variance in adolescent anxiety, personal emotion controllability beliefs consistently explained unique variance over and above all other study measures.

# Discussion of Supplementary Findings: Relationships between emotion controllability beliefs, emotion regulation, and anxiety

**Emotion Controllability Beliefs and Anxiety.** As predicted, believing that emotions are somewhat controllable was associated with lower levels of anxiety, with the relationship being stronger when it came to adolescents' personal (r = -.62) rather than general emotion controllability beliefs (r = -.47). A similar pattern has been found in a number of studies; for example, De Castella and colleagues (2013) found that undergraduate students who believed that they have limited control over their *own* emotions were more likely to experience

psychological distress. In a study by Russell et al. (2021), a strong association was found between personal emotion controllability beliefs and anxiety symptoms reported by young people aged 10 – 18 who suffered from cystic fibrosis. Furthermore, Daniel et al. (2020) carried out a study with young people with high levels of social anxiety, and found that those who believed that they have some control over their *own* emotions were less likely to experience severe symptoms of anxiety. While these are important findings, they should be examined with caution due to the cross-sectional nature of the aforementioned studies. In a recent insight analysis, which examined how personal emotion controllability beliefs might help young people manage anxiety, only two longitudinal studies noting links between emotion controllability beliefs and anxiety were identified within the systematic review of studies in this area (Somerville et al., 2021).

Emotion Regulation and Anxiety. Consistently with our hypothesis, adolescents who reported frequently using reappraisal to regulate their emotions were less likely to experience anxiety (r = -.49). While marginally significant and with a smaller effect size, an association between suppression use and anxiety was also found (r = .21). These findings are not only in line with the extensive research documenting the links between various regulatory strategies and mental health (Aldao et al., 2010; Aldao & Nolen-Hoeksema, 2012; Compas et al., 2017; Nolen-Hoeksema & Aldao, 2011; Webb et al., 2012), but they also provide support for Gross' process model of emotion regulation (1998b). More specifically, Gross' theoretical framework posits that different emotion regulation strategies pose different demands and cognitive loads on the individual employing them; depending on the stage of the emotion unfolding process the emotion regulation strategies are targeted at, they lead to specific physiological responses and experiences, which can over time have a cumulative, positive or negative, effect for the individual. Generally, antecedent-focused strategies like reappraisal are thought to impact both the expression and experience of emotion, and so when frequently used they are expected to result in experiencing more positive emotion, and lead to favourable emotional outcomes overall; response-focused strategies like suppression, which are employed much

later on in the emotion regulation process, are instead solely targeted at the expression of emotion, and so they are thought to be followed by higher levels of negative emotion, and more adverse emotional outcomes (Gross & John, 2003). As discussed in the literature review of the present study, one needs to however also acknowledge recent research in this area which has begun to demonstrate that the conceptualisation of different types of emotion regulation strategies as 'healthy' and 'less healthy' based on when they are employed during the regulatory process may be reductionist, and other factors need to be examined; more specifically, for a more informed evaluation of the adaptiveness of a given strategy the context in which the emotion occurs and the competence of the individual implementing the strategy should be also taken into consideration (Aldao, 2013; Bonanno & Burton, 2013; Sheppes et al., 2011).

Alternative directional model. While not the primary focus of this research, it is worth noting the findings from a mediational model of the reverse directionality: in an analysis where anxiety symptoms were entered as the predictor of (personal) emotion controllability beliefs, reappraisal (and not suppression) was found to be a significant mediator of this relationship. This means that adolescents who experienced high levels of anxiety were more likely to feel emotionally overwhelmed and therefore, less able to employ reappraisal and more likely to hold beliefs that they have control over their emotions. This is a particularly important finding which indicates that believing emotions are somewhat controllable may be a precursor of good mental health, but such beliefs may also be a result of good mental health. Consistent with this finding is a study with undergraduate psychology students, where positive self-concept, satisfaction with life, and symptoms of stress (but not depression) were all associated with personal emotion controllability beliefs through the use of reappraisal (De Castella et al., 2013). Interestingly, however in a series of studies by Ford et al. (2018) which employed a cross-sectional and longitudinal design, the relationship between youth's depressive symptoms and personal emotion controllability beliefs was not found to be consistently mediated by reappraisal use. More specifically, once the researchers accounted for other

factors which may influence the relationship between depression and emotion controllability beliefs, emotion regulation was no longer a significant mediator in their model. Beliefs about emotion controllability are likely a multi-faceted construct shaped by various factors, as according to Ford and Gross (2019) emotion controllability beliefs are a first-order valuation system. Another possible explanation why reappraisal has been found to only mediate the relationship of stress and anxiety with emotion controllability beliefs, and not the relationship between depression and emotion controllability beliefs may relate to differences in one's ability to employ re-appraisal when experiencing severe symptoms of depressions; depression has been associated with difficulties with cognitive control and other executive functions (Joormann & Gotlib, 2010), skills closely linked with the use of re-appraisal (Kudinova et al., 2018; Troy et al., 2010). It is therefore important that future studies not only broaden our understanding of the direction of the relationship between mental health and beliefs about emotion controllability but also enrich our understanding of the impact of other factors on the multi-determined construct of emotion controllability beliefs.