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## **University of Southampton**

Faculty of Environmental and Life Sciences

#### School of Psychology

## A Mixed Methods Study Exploring Perfectionism, Well-being and Flourishing in U.K. Secondary School Students

by

#### **Lauren Marie Holmes**

Thesis for the degree of **Doctorate** in Educational Psychology

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## **University of Southampton**

#### **Abstract**

Faculty of Environmental and Life Sciences
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Thesis for the degree of <u>Doctorate in Educational Psychology</u>

A Mixed Methods Study Exploring Perfectionism, Well-being and Flourishing in U.K.

Secondary School Students

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Perfectionism has been conceptualised as a multidimensional personality characteristic with adaptive and maladaptive aspects. Much research on perfectionism amongst children and young people (CYP) has focused on its links with negative mental health outcomes.

The systematic literature review examined the effectiveness of interventions targeting perfectionism in children and adolescents. 16 studies were identified and quality assessed. Findings were grouped according to participant samples: universal samples, gifted students, participants with elevated perfectionism and clinical samples. Results suggested that interventions targeting perfectionism can be effective in adolescents from clinical and non-clinical samples and those with elevated perfectionism. However, interventions were often not effective in lowering all perfectionism dimensions measured. Furthermore, dimensions conceptualised as adaptive were often reduced in addition to those conceptualised as maladaptive. The studies contained several methodological limitations, including lack of blinding and fidelity assessment, and reliance on self-report measures. It was concluded that those considering implementing such interventions should exercise caution. More research is needed to clarify when and how perfectionism can be helpful and harmful to CYP to inform decisions around intervention.

The empirical paper used a mixed methods design to explore differences in well-being and flourishing between students classed as adaptive, maladaptive and non-perfectionists, and to identify factors that support adaptive perfectionists' well-being in school. In the quantitative phase, 260 secondary school students (aged 13–15) completed measures of perfectionism, well-being and flourishing. In the qualitative phase, semi-structured interviews were conducted with 11 participants identified as flourishing adaptive perfectionists. Kruskal-Wallis tests and pairwise comparisons revealed that adaptive

perfectionists had significantly higher total, emotional, social and psychological well-being than maladaptive and non-perfectionists. Maladaptive perfectionists also had significantly higher total and psychological well-being than non-perfectionists. The emotional and social well-being scores of maladaptive and non-perfectionists did not significantly differ. Furthermore, a chi-square test revealed that significantly more adaptive perfectionists were classed as 'flourishing' than would be expected if they were equally distributed across mental health status categories. Significantly more non-perfectionists were classed as 'languishing' than expected. Thematic analysis of the qualitative data revealed four overarching themes: 'social support', 'life outside of school', 'reactions to imperfection' and 'coping with challenges'. Overall, findings highlighted the importance of examining how perfectionism may promote well-being as well as suggesting useful implications for practice, including helping CYP to develop coping strategies, growth mindsets and social support networks.

## **Table of Contents**

Table of C	ontents	l
Table of T	ables	v
Table of Fi	igures	vii
Research T	Thesis: Declaration of Authorship	xi
Acknowled	lgements	xiii
Definitions	s and Abbreviations	XV
Chapter 1	A Systematic Literature Review Examining the Effectiveness of	
	Interventions Targeting Perfectionism in Children and Adolescents.	1
1.1 Intro	oduction	1
1.1.1	Conceptualisations of Perfectionism	1
1.1.2	Perfectionism in Children and Young People	4
1.1.3	The Development of Perfectionism	5
1.1.4	Interventions for Perfectionism	6
1.1.5	Aim of the Systematic Literature Review	7
1.2 Rev	riew Methodology	7
1.2.1	Search Strategy	7
1.2.2	Inclusion and Exclusion Criteria	8
1.2.3	Quality Assessment	10
1.3 Res	ults	11
1.3.1	Quality Assessment Results	11
1.3.2	Study Characteristics	12
1.3.3	Intervention Characteristics.	14
1.3.4	Findings	15
1	.3.4.1 Universal samples.	15
1	.3.4.2 Gifted students	18
1	.3.4.3 Participants with elevated perfectionism	20
1	.3.4.4 Clinical samples.	22
1.4 Disc	cussion.	23
1.4.1	Strengths and Limitations of the Reviewed Studies	26
1.4.2	Strengths and Limitations of the Review	28

#### Table of Contents

1.4.3	Implications for Educational Psychologists	29
1.4.4	Conclusion	30
Chapter 2	A Mixed Methods Study Exploring Perfectionism, Well-being and	
	Flourishing in U.K. Secondary School Students	33
2.1 Intro	oduction	33
2.1.1	Conceptualisations of Perfectionism	33
2.1.2	Adaptive and Maladaptive Perfectionism	
2.1.3	Well-being and Flourishing	
2.1.4	Perfectionism and Flourishing	
2.1.5	Perfectionism and Well-being in Secondary School Students	
2.1.6	The Present Study	
2.1.7	Research Questions and Hypotheses	
2.2 Met	hod	40
2.2.1	Design	40
2.2.2	Philosophical Position	41
2.2.3	Recruitment	42
2.2.4	Questionnaire Participants	42
2.2.5	Interview Participants	44
2.2.6	Measures	45
2.2.7	Ethical Considerations	47
2.2.8	Procedure	48
2.3 Find	lings	49
2.3.1	Quantitative Data	49
2.3.2	Approach to Qualitative Data Analysis	55
2.3.3	Qualitative Data	56
2.4 Disc	cussion	69
2.4.1	Quantitative Results	69
2.4.2	Integration of the Quantitative and Qualitative Findings	70
2.4.3		
-	Research	
2.4.4	Implications for Practice and Conclusions	
Appendix	A Systematic Review: Search Terms	<b>8</b> 1

Appendix B	Systematic Review: Data Extraction Table	83
Appendix C	Systematic Review: Quality Assessment of Included Studies	97
Appendix D	Head Teacher Information Sheet and Consent Forms	105
Appendix E	Parent/Carer Information Sheet and Opt-out Consent Form	for
Que	estionnaire	113
Appendix F	Parent/Carer Information Sheet and Opt-in Consent Form for	r
Inte	erview	119
Appendix G	Perfectionism Measure	125
Appendix H	Well-being and Flourishing Measure	127
Appendix I	Interview Schedule	129
Appendix J	Picture Cards Used in Interviews	131
Appendix K	Ethics Approval	133
Appendix L	Participant Debriefing Information for Questionnaire	135
Appendix M	Participant Debriefing Information for Interview	137
Appendix N	Questionnaire	139
Appendix O	Participant Information Sheet and Assent Form for	
Que	estionnaire	149
Appendix P	Participant Information Sheet and Assent Form for Interview	v153
Appendix Q	Histograms	155
Appendix R	Additional Analysis	161
Appendix S	Researcher Reflexivity	165
Appendix T	Sample Coded Interview Extract	167
Appendix U	Manually Grouping Codes into Potential Themes	171
Appendix V	Thematic Map Development	173
List of Deferen	200	175

## **Table of Tables**

Table 1. Perfectionism Measure Subscales Regarded to Represent Adaptive and
Maladaptive Aspects of Perfectionism3
Table 2. Inclusion and Exclusion Criteria Used During Screening
Table 3. Questionnaire Participants' Demographic Characteristics
Table 4. Interview Participants' Demographic Characteristics
Table 5. Means and Standard Deviations of Dependent Variables by Perfectionism Group 50
Table 6. Bivariate Pearson's Correlations Between Dependent Variables51
Table 7. Results of Kruskal-Wallis Tests and Pairwise Comparisons Assessing Differences in Well-being Across Perfectionism Groups
Table 8. Contingency Table: Perfectionism Group by Mental Health Status54
Table 9. Description of How the Researcher Followed Braun and Clarke's (2006) Phases of Thematic Analysis
Table 10. Joint Display Illustrating How the Qualitative Findings Help to Explain the  Quantitative Results

## **Table of Figures**

Figure 1. PRISMA flow diagram of systematic search results	. 10
Figure 2. Visual representation of the study's explanatory sequential mixed methods	
design.	41
Figure 3. Thematic map	. 57

## **Research Thesis: Declaration of Authorship**

Print name: LAUREN MARIE HOLMES

Title of thesis: A Mixed Methods Study Exploring Perfectionism, Well-being and Flourishing in U.K. Secondary School Students

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

#### I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University;
- 2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- 3. Where I have consulted the published work of others, this is always clearly attributed;
- 4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- 5. I have acknowledged all main sources of help;
- 6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- 7. None of this work has been published before submission.

Signature:	]	Date:	08/06/2020

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#### **Definitions and Abbreviations**

α Cronbach's alpha

ACT Acceptance and commitment therapy

ANOVA Analysis of variance

AP Adaptive perfectionist

APS-R The Almost Perfect Scale-Revised

CAPS The Child-Adolescent Perfectionism Scale

CBT Cognitive behavioural therapy

CBT-P Cognitive behavioural therapy for perfectionism

CENTRAL Cochrane Central Register of Controlled Trials

CR Critical realism

CYP Children and young people

d Cohen's d

DAS Dysfunctional Attitudes Scale

df Degrees of freedom

DV Dependent variable

EDI Eating Disorder Inventory

EP Educational Psychologist

EWB Emotional well-being

 $\eta_p^2$  Partial eta squared

F F-statistic, used in ANOVA

FBT Family-based treatment

FMPS Frost et al.'s (1990) Multidimensional Perfectionism Scale

H Kruskal-Wallis test statistic

HFMPS Hewitt and Flett's (1991) Multidimensional Perfectionism Scale

#### **Definitions and Abbreviations**

ICBT Internet-delivered cognitive behavioural therapy

ICBT-P Internet-delivered cognitive behavioural therapy for perfectionism

ICBT-S Internet-delivered cognitive behavioural therapy for stress

management

IQR Interquartile range

M Mean

Mdn Median

*n* Sample size (subsample)

N Sample size (total sample)

MHC-SF The Mental Health Continuum-Short Form

MP Maladaptive perfectionist

NHS National Health Service

NP Non-perfectionist

OOP Other-oriented perfectionism

*p* Probability value

PWB Psychological well-being

*r* Pearson's correlation coefficient

REBT Rational emotive behaviour therapy

RCT Randomised controlled trial

SCED Single-case experimental design

SD Standard deviation

SEN Special educational needs

SOP Self-oriented perfectionism

SPP Socially prescribed perfectionism

SWB Social well-being

TWB Total well-being

UK United Kingdom

US United States

V Cramér's V

VRA Voluntary research assistant

 $\chi^2$  Chi-square statistic

z z-score or standard score

# Chapter 1 A Systematic Literature Review Examining the Effectiveness of Interventions Targeting Perfectionism in Children and Adolescents

#### 1.1 Introduction

There has been much recent focus on a rise in mental health issues amongst children and young people (CYP). A National Health Service (NHS) survey found that the prevalence of emotional disorders (predominately anxiety and depressive disorders) in children living in England aged 5 to 15 increased from 3.9% in 2004 to 5.8% in 2017, with one in 12 5 to 19-year-olds experiencing them (NHS Digital, 2018). Curran and Hill (2019) suggested that there has also been a rise in perfectionism amongst young people, possibly linked to increases in mental health difficulties. Recent mass media has focused on perfectionism and mental health, with online articles entitled 'the Dangerous Downsides of Perfectionism' (Ruggeri, 2018) and 'the Perils of Perfectionism in Kids and Teens' (Maker, 2018). Perfectionism has been described as a "hidden epidemic" in young people (Curran & Hill, 2018, para. 13). Given this context, it is unsurprising that researchers (e.g., Flett & Hewitt, 2014) have advocated for the development and implementation of school-based interventions to reduce perfectionism and enhance resilience amongst CYP. However, it is important that there is a clear understanding of perfectionism, and its effects on mental health and well-being, before exploring interventions to change it.

#### 1.1.1 Conceptualisations of Perfectionism

Interest in perfectionism, within the field of psychology, extends back many years. Alfred Adler is considered one of the first theorists to focus on it, stating "the striving for perfection is innate in the sense that it is a part of life, a striving, an urge, a something without which life would be unthinkable" (Ansbacher & Ansbacher, 1956, p. 104). He proposed that individuals seek to achieve perfection in adaptive or maladaptive ways (Akay-Sullivan, Sullivan, & Bratton, 2016). In contrast, another early theorist, Horney (1950), conceptualised perfectionism as a neurotic and dysfunctional personality characteristic that can develop in some individuals.

In 1978, Hamachek published an influential article distinguishing between normal and neurotic perfectionists. Normal perfectionists set attainable standards and derive

satisfaction from efforts to achieve these, lowering them in certain circumstances. Conversely, neurotic perfectionists set unrealistic standards and feel that their attempts to reach these are inadequate, unable to lower them. Soon after this article's publication, the first perfectionism measures emerged, such as the Eating Disorder Inventory's (EDI) Perfectionism subscale (Garner, Olmstead, & Polivy, 1983). These conceptualised perfectionism as unidimensional and pathological in nature (Stoeber, 2018).

Multidimensional conceptualisations of perfectionism have only emerged in the last three decades. Using questionnaire measures and factor analysis, researchers have learned more about the positive and negative aspects of perfectionism. Frost, Marten, Lahart, and Rosenblate (1990) created the Multidimensional Perfectionism Scale (hereinafter referred to as the FMPS) to measure six perfectionism dimensions. These are: personal standards (setting extremely high standards), doubts about actions (questioning whether tasks have been completed satisfactorily), concern over mistakes (negative responses to errors), organisation (desire for order), parental expectations and parental criticism (aspects associated with beliefs about parental standards and evaluations). Hewitt and Flett (1991) independently developed another Multidimensional Perfectionism Scale (hereinafter referred to as the HFMPS). It differed in its emphasis on intrapersonal and interpersonal aspects of perfectionism, measuring three aspects: self-oriented perfectionism (SOP; setting challenging personal standards and judging one's behaviour critically), otheroriented perfectionism (OOP; having unreasonable standards for others, expecting them to be perfect and harshly judging their performance) and socially prescribed perfectionism (SPP; believing or perceiving that others have unreasonable standards for them, expect them to be perfect and judge them harshly).

When Frost, Heimberg, Holt, Mattia, and Neubauer (1993) conducted a factor analysis on the FMPS (Frost et al., 1990) and HFMPS (Hewitt & Flett, 1991) subscales, a two-factor solution emerged despite the measures ostensibly appearing quite different. A 'positive strivings' factor included subscales considered as more positive facets of perfectionism (SOP, OOP, Personal Standards and Organisation) while a 'maladaptive evaluative concerns' factor included those thought to reflect negative facets (SPP, Doubts about Actions, Concern over Mistakes, Parental Expectations and Parental Criticism). Further analyses revealed that only the maladaptive evaluative concerns factor was associated with depression and negative affect, while only the positive strivings factor was associated with positive affect. Additional support for this two-factor model was supplied by Bieling, Israeli, and Antony (2004).

Table 1 shows how subscales from three dominant measures of perfectionism can be mapped onto two factors based on results of factor-analytic research (Frost et al., 1993; Suddarth & Slaney, 2001). However, these factors are named differently, for example, 'perfectionistic strivings' and 'perfectionistic concerns' (Stoeber & Otto, 2006) or 'healthy' and 'unhealthy' perfectionism (Stumpf & Parker, 2000). The terms 'adaptive perfectionism' and 'maladaptive perfectionism' (Rice, Ashby, & Slaney, 1998) will be employed in this paper as the most widely used in the literature.

Table 1. Perfectionism Measure Subscales Regarded to Represent Adaptive and Maladaptive Aspects of Perfectionism

Measure	Adaptive perfectionism	Maladaptive perfectionism
FMPS	Personal Standards	Concern over Mistakes
		Doubts about Actions
		Parental Criticism
		Parental Expectations
HFMPS	Self-oriented Perfectionism	Socially Prescribed Perfectionism
	Other-oriented Perfectionism	
APS-R	High Standards	Discrepancy

Note. FMPS = Frost Multidimensional Perfectionism Scale (Frost, Marten, Lahart, & Rosenblate, 1990); HFMPS = Multidimensional Perfectionism Scale (Hewitt & Flett, 1991); APS-R = Almost Perfect Scale-Revised (Slaney, Mobley, Trippi, Ashby, & Johnson, 1996; Slaney, Rice, Mobley, Trippi, & Ashby, 2001). The subscales of 'Order' (from the APS-R) and 'Organisation' (from the FMPS) are excluded due to findings that these subscales load onto a separate factor (e.g., Suddarth & Slaney, 2001).

Another conceptualisation of perfectionism which has recently become prominent is Shafran, Cooper, and Fairburn's (2002) cognitive-behavioural model of clinical perfectionism, defined as "the overdependence of self-evaluation on the determined pursuit of personally demanding, self-imposed, standards in at least one highly salient domain, despite adverse consequences" (p. 778). The model was proposed to understand perfectionism presenting in clinical samples in order to inform intervention; perfectionism was viewed as dysfunctional, with high standards resulting in negative consequences (in contrast to high standards as an adaptive striving for excellence).

#### 1.1.2 Perfectionism in Children and Young People

The results of studies using methods to identify adaptive, maladaptive and non-perfectionists in samples suggest that the prevalence of youth perfectionism is high. For example, in a U.S. study, Gilman, Adams, and Nounopolous (2011) found that 42% of adolescent students (mean age = 14.66) were adaptive perfectionists, 23% were maladaptive perfectionists and 35% were non-perfectionists.

Research indicates that adolescents with high levels of adaptive perfectionism, who set high standards but do not experience the "dysfunctional cognitions" that are hallmarks of maladaptive perfectionism (Stoeber, Edbrooke-Childs, & Damian, 2018, p. 2737), can experience positive outcomes. Adaptive perfectionism has been positively associated with higher academic achievement, motivation, self-esteem and life satisfaction (Accordino, Accordino, & Slaney, 2000; Gilman, Ashby, Sverko, Florell, & Varjas, 2005); this explains how it might be encouraged in the United Kingdom's (UK's) current competitive educational climate, where high standards are celebrated.

While those with high maladaptive perfectionism also set high standards, they may worry about making mistakes, doubt their actions, self-criticise, experience a discrepancy between their expectations and performance, and fret over meeting their own and others' high standards (Stoeber & Otto, 2006). Maladaptive perfectionism has been related to poorer academic achievement (Accordino et al., 2000) and found to predict procrastination and academic burnout (Shih, 2012; 2017). Moreover, while links between adaptive perfectionism and negative mental health outcomes in adolescents have been variable, those for maladaptive perfectionism have been consistent (O'Connor, Rasmussen, & Hawton, 2010; Stornæs, Rosenvinge, Sundgot-Borgen, Pettersen, & Friborg, 2019).

Boone, Soenens, Braet, and Goossens (2010) reported that evaluative concerns uniquely predicted eating disorder symptoms and that adolescents with elevated levels of both these and personal standards were at most risk. Herman, Trotter, Reinke, and Ialongo (2011) found that maladaptive perfectionists had significantly higher anxiety and depression than maladaptive and non-perfectionists in a sample of African American children (mean age = 11.22). SPP has also been found to predict depression in Scottish youths (O'Connor et al., 2010) and has been associated with suicide ideation in an adolescent clinical sample (Hewitt, Newton, Flett, & Callander, 1997). Similar links between perfectionism and mental health outcomes in adults has led to the proposal that perfectionism is a transdiagnostic process involved in the development and maintenance of

a range of psychological problems (Egan, Wade, & Shafran, 2011). Given links between youth perfectionism and psychopathology, the development and implementation of interventions targeting perfectionism may be necessary in school-aged students.

#### 1.1.3 The Development of Perfectionism

Consideration of factors which underpin the development of perfectionism may inform intervention development. Theory and research appears to support an ecosystemic approach, involving interactions between various factors (Starley, 2019). There is some evidence that genetic factors may contribute. For example, a twin study of adolescents (Iranzo-Tatay et al., 2015) found that perfectionism had moderate heritability. However, most research has focused on parenting. Some (e.g., Appleton, Hall, & Hill, 2010) supports a notion that children develop perfectionistic tendencies by modelling parents' perfectionism, in line with Bandura's (1977) social learning theory. Indeed, harsh and authoritarian parenting has been positively associated with maladaptive perfectionism (Kawamura, Frost, & Harmatz, 2002). Other research has focused on attachment, with Chen et al. (2012) linking the need to appear perfect to insecure attachment in an adolescent sample. Although there is little research on how other important figures in children's lives, such as peers, siblings or teachers, may influence perfectionism development (Stoeber et al., 2018), investigation has begun on the impact of environmental factors, such as the school environment. Stornæs et al. (2019) compared perfectionism profiles in adolescents attending elite schools for sports or performing arts and regular schools in Norway. Surprisingly, a higher proportion (38%) of students with maladaptive perfectionism profiles was found in the latter than the former (22%). The authors suggested that attendees of regular schools might experience a greater discrepancy between their abilities and external expectations.

Finally, the role of cultural shifts over time is beginning to receive attention. Curran and Hill (2019) proposed that recent increases in perfectionism amongst young people in the United States (US), Canada and the UK might be related to their cultures embracing competitive individualism and meritocracy and parents adopting more controlling practices. Consequently, CYP today may experience greater pressure to achieve perfection than previously.

#### 1.1.4 Interventions for Perfectionism

Interventions targeting perfectionism have only recently emerged, mostly focusing on adults. Suh, Sohn, Kim, and Lee (2019) proposed that relevant research was delayed as perfectionism is not a clinical disorder and evidence suggests that it has relative stability in adults over time (e.g., Rice & Aldea, 2006). Nevertheless, perfectionism intervention research has increased with two meta-analyses examining the effectiveness of interventions amongst adults. Lloyd, Schmidt, Khondoker, and Tchanturia (2015) included eight studies with adults who had a clinical disorder or high perfectionism levels using interventions based on cognitive behavioural therapy (CBT). Large effect sizes were obtained for reductions in personal standards, concern over mistakes and SOP, while a medium effect size was obtained for reductions in SPP. Findings of medium effect sizes for decreases in anxiety and depression symptoms provided support for Egan et al.'s (2011) assertion that perfectionism is a transdiagnostic process.

A recent review and meta-analysis (Suh et al., 2019) sought to build upon these findings by only including randomised controlled trials (RCTs; n = 10) and exploring whether intervention delivery mode (face-to-face or online) moderated outcomes. It found that interventions targeting perfectionism were effective in reducing perfectionism and symptoms of anxiety and depression in adults, with medium effect sizes. No moderation effect was found for delivery mode. Again, most studies utilised CBT, which provides support for the cognitive-behavioural model of clinical perfectionism.

A striking common finding highlighted by both meta-analyses was that interventions also reduced facets of perfectionism regarded as adaptive. Therefore, it seems that current perfectionism interventions cannot yet simultaneously maintain or nurture adaptive perfectionism whilst reducing maladaptive perfectionism (Suh et al., 2019). This important fact must be considered by those developing interventions as Wade (2018) emphasised that schools are unlikely to support interventions which could reduce standards.

Another consideration is whether perfectionism in CYP may interfere with their abilities to engage with interventions effectively, resulting in reduced benefits. Mitchell, Newall, Broeren, and Hudson (2013) suggested that perfectionists may lack flexibility around changing high standards which could prevent them from engaging with some CBT elements, such as challenging irrational thoughts. Also, some research with adults found that reduced improvements for perfectionists in the treatment of depression was mediated by difficulties in establishing strong relationships with therapists and poorer social

relationships (Shahar, Blatt, Zuroff, Krupnick, & Sotsky, 2004; Zuroff et al., 2000). There is some research evidence to suggest that perfectionism can impede adolescents' intervention response. Mitchell et al. (2013) found that child SOP ratings predicted worse outcomes (higher maternal child anxiety symptom ratings) after receiving CBT for anxiety and at follow-up. Jacobs et al. (2009) reported that adolescents with higher baseline perfectionism scores showed less improvement in suicide ideation and continued to have high depression over the depression treatment phase.

Nevertheless, perfectionism interventions may be more effective in CYP than adults as their perfectionism may be less stable (Nobel et al., 2012) but it is difficult to discern, from the evidence base, the best type of intervention. There is a current paucity of available research focused on evaluating their impact. Morris and Lomax (2014) examined perfectionism treatment within a systematic literature review, exploring perfectionism and psychopathology in CYP. Of seven studies identified, two did not assess the impact of intervention using perfectionism measures and only one used an intervention explicitly targeting perfectionism. In their 2014 article, Flett and Hewitt also discussed studies that have examined the impact of intervention in CYP. They concluded that interventions which explicitly focused on decreasing perfectionism appeared more effective than those which did not.

#### 1.1.5 Aim of the Systematic Literature Review

Due to the growing interest in this area, the aim of the current systematic literature review was to examine the effectiveness of interventions explicitly targeting perfectionism in children and adolescents. Being unaware of any other systematic literature reviews exclusively focusing on this topic, the researcher aimed to provide a broad overview of existing research, which could later be followed up by more specific reviews. To achieve this, the review included studies with CYP both with and without clinical disorders and/or elevated perfectionism, with no restrictions on intervention type used.

#### 1.2 Review Methodology

#### 1.2.1 Search Strategy

Systematic searches were conducted using the electronic databases PsychINFO and MEDLINE via EBSCO, Web of Science and Cochrane Central Register of Controlled Trials (CENTRAL) on 20/03/2020. Search terms (Appendix A) were selected by

#### Chapter 1

identifying synonyms and examining search terms used in previous perfectionism systematic literature reviews and meta-analyses. No restrictions were used. Searches were conducted within all fields in each database (apart from CENTRAL where the domain 'all text' was selected as an 'all fields' option was unavailable).

#### 1.2.2 Inclusion and Exclusion Criteria

Search results were screened using the inclusion and exclusion criteria displayed in Table 2 to determine whether studies were eligible for inclusion in the review.

Table 2. Inclusion and Exclusion Criteria Used During Screening

	Inclusion criteria	Exclusion criteria
Participants	Primary and secondary-aged children and adolescents between the ages of 5 and 19 (or their mean age was below 19)	Participants over the age of 19 (or their mean age was over 19) University students
	Clinical or non-clinical populations	
	Participants with or without elevated perfectionism levels	
	Participants may or may not be identified as gifted	
Intervention	Reducing perfectionism was an aim of the intervention.	Reducing perfectionism was not an aim of the intervention.
	Perfectionism was explicitly identified as a target of the intervention.	Perfectionism was not explicitly identified as a target of the intervention.
	At least part of the intervention explicitly addressed perfectionism and/or a clear rationale was	No part of the intervention explicitly addressed perfectionism and/or no clear rationale was

	provided for why the intervention might reduce perfectionism.	provided for why the intervention might reduce perfectionism.
		Perfectionism was only indirectly targeted by the intervention. This includes studies which targeted another variable but examined indirect effects on perfectionism (i.e., perfectionism was investigated as a correlate, mediator or moderator).  Pre- and post-data for
		perfectionism was not available.
Design	Quantitative studies including single-case experimental designs and quantitative case studies	Qualitative studies including qualitative case studies
Publication requirements	Studies published in peer-reviewed academic journals and unpublished dissertations or doctoral theses	Book reviews, book chapters, abstract-only evidence and review articles
	Published in English	Published in a language other than English, with no translated version available

The PRISMA flow diagram (Moher, Liberati, Tetzlaff, & Altman, 2009) shown in Figure 1 displays the number of records screened, identified, included and excluded (with reasons for exclusion). If it was impossible to determine whether an article met inclusion criteria based on the title and abstract, the full-text was accessed. Where there was still uncertainty, discussions with supervisors were held to reach a group decision. The systematic search process resulted in the selection of 16 studies. Their references were also inspected but this method yielded no additions. Key characteristics of each study are displayed in the data extraction table (Appendix B).

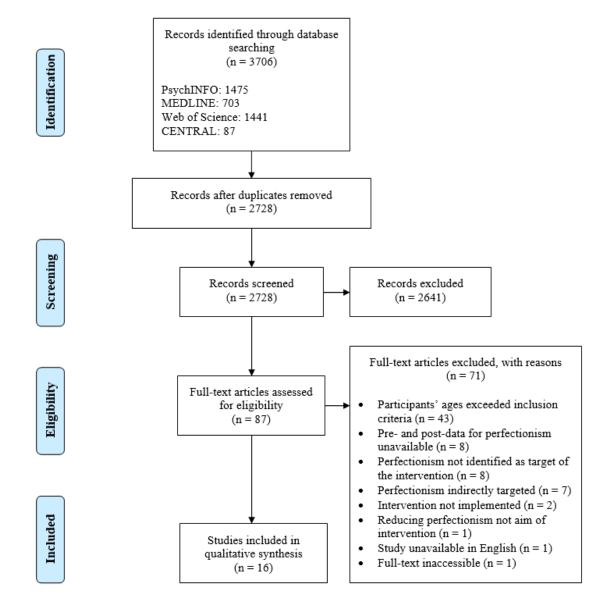


Figure 1. PRISMA flow diagram of systematic search results.

#### 1.2.3 Quality Assessment

The Downs and Black checklist (Downs & Black, 1998) was selected to assess the quality of eligible studies as it is suitable for randomised and non-randomised studies, is recommended for use in systematic reviews (see review by Deeks et al., 2003) and has relatively high reliability and validity (Downs & Black, 1998). The checklist assesses study quality under the following headings: reporting, external validity, internal validity (bias), internal validity (confounding) and power. As the checklist was designed for health-care interventions, some original wording was altered to suit the perfectionism interventions studied and to encompass the broad range of study designs included in this review. An adaptation used by previous studies (e.g., O'Connor et al., 2015) was applied to question 27 regarding power. The following rating system used by O'Connor et al.

(2015) was adopted: 24–28 (excellent), 19–23 (good), 14–18 (fair) and below 14 (poor). However, summary scores from quality assessment tools using numerical scales should be interpreted cautiously as Jüni, Witschi, Bloch, and Egger (1999) highlighted that use of different scales can result in different interpretations of study quality. Therefore, ratings were used as a guide rather than to reach definite decisions about each study's value. To assess inter-rater reliability, a voluntary research assistant (VRA) was asked to quality assess two papers using the checklist. There was 81.5% agreement between raters across the items, with discrepancies due to small differences in subjective perspective. Therefore, the researcher chose to retain her original ratings.

The Evaluative Method (Reichow, Volkmar, & Cicchetti, 2008) was chosen to assess the quality of the one study with a single-case experimental design (SCED), as it incorporates many of Horner et al.'s (2005) quality indicators for single-subject research and differentiates between criteria based on relevance for the study's validity (Wendt & Miller, 2012). It has also been found to have high validity and reliability (Reichow et al., 2008). Although designed for use in autism research, it is suitable for use in other areas (Wendt & Miller, 2012). Nevertheless, some wording changes were necessary. Based on the number of primary and secondary indicators of study quality met, studies were rated as strong, adequate or weak (see Reichow et al., 2008, and Reichow, 2011, for further scoring information). After a VRA quality assessed the SCED study, the researcher amended her response regarding social validity, resulting in 75% agreement overall.

#### 1.3 Results

#### 1.3.1 Quality Assessment Results

Of 15 studies assessed using the adapted Downs and Black (1998) checklist, four were deemed of 'good' methodological quality (Fairweather-Schmidt & Wade, 2015; Shu et al., 2019; Vekas & Wade, 2017; Wilksch, Durbridge, & Wade, 2008). Seven were deemed 'fair' (Bento, Pereira, Roque, Tavares Saraiva, & Ferreira Macedo e Santos, 2017; Hurst & Zimmer-Gembeck, 2019; Mofield & Chakraborti-Ghosh, 2010; Nehmy & Wade, 2015; Kelly, 2015; Klein, 2004; Wilksch, Starkey, Gannoni, Kelly, & Wade, 2013). The remaining four were deemed 'poor' (Craciun, 2013; Hayati & Parto, 2018; Hurst & Zimmer-Gembeck, 2015; Rafat, Sanatkaran, & Mohammadkhani, 2018). No studies achieved an 'excellent' rating. The one SCED (Akay & Bratton, 2017) study had 'weak'

research report strength according to Reichow et al.'s (2008) criteria. See Appendix C for quality assessment checklists and a detailed breakdown of study ratings.

#### 1.3.2 Study Characteristics

#### Samples.

Sample sizes ranged from one to 978. Participant age ranged from 9 to 19 across studies providing such data. Most studies were conducted with secondary school-aged participants.

The majority of studies used samples from Australia (n = 8), the others from the US (n = 4), Iran (n = 2), Romania (n = 1) and Portugal, (n = 1). Only four provided detailed information regarding participant ethnicity.

Six studies used female-only samples (Hurst & Zimmer-Gembeck, 2015, 2019; Kelly, 2015; Shu et al., 2019; Wilksch et al., 2008; Wilksch et al., 2013). One study (Rafat et al., 2018) seemed to use an all-male sample; inconsistencies in reporting made this difficult to ascertain. Furthermore, the single participant in Akay and Bratton's (2017) study was male. Another study (Hayati & Parto, 2018) did not provide information on participants' sex. All other studies included both males and females.

Seven studies employed universal samples (targeting students who had no identified issues or risks), two employed samples of gifted students, three used participants with elevated perfectionism levels, or who self-identified as experiencing problems with perfectionism, and four used clinical samples.

#### Measures.

All studies used self-report measures of perfectionism to evaluate the effectiveness of interventions on perfectionism. Only Akay and Bratton (2017) utilised teacher and parent ratings using the Perfectionism subscale of the Conners Rating Scales-Revised (Conners, Sitarenios, Parker, & Epstein, 1998). Many different perfectionism measures were used. The most commonly used was the Child-Adolescent Perfectionism Scale (CAPS; Flett, Hewitt, Boucher, Davidson, & Munro, 2000), with six studies using the 22-item version (Akay & Bratton, 2017; Bento et al., 2017; Hurst & Zimmer-Gembeck, 2015, 2019; Kelly, 2015; Klein, 2004) and two studies (Fairweather-Schmidt & Wade, 2015; Vekas & Wade, 2017) using a 14-item version developed by O'Connor, Dixon, and Rasmussen (2009). The second most popular measure was the FMPS (Frost et al., 1990),

used by Wilksch et al. (2008), Klein (2004) and Wilksch et al. (2013), with Mofield and Chakraborti-Ghosh (2010) using a slightly adapted version (the Goals and Work Habits Survey; Schuler, 1994). Two studies (Craciun, 2013; Nehmy & Wade, 2015) used the Perfectionism subscale of Weissman and Beck's (1978) Dysfunctional Attitudes Scale (DAS). Other measures used by single studies were the Clinical Perfectionism Questionnaire (Fairburn, Cooper, & Shafran 2003), the Positive and Negative Perfectionism Scale (Terry-Short, Glynn Owens, Slade, & Dewey, 1995), the Almost Perfect Scale-Revised (Slaney, Mobley, Trippi, Ashby, & Johnson, 1996; Slaney, Rice, Mobley, Trippi, & Ashby, 2001), the Perfectionism Inventory (Hill et al., 2004) and the Perfectionism and Overcontrol subscales of the EDI-3 (Garner, 2004).

Most studies used follow-up measures, apart from Craciun (2013), Hayati and Parto (2018), Mofield and Chakraborti-Ghosh (2010) and Rafat et al. (2018). These varied from 3 weeks after (Akay & Bratton, 2017) to 12 months (Nehmy & Wade, 2015).

#### Design.

One study (Shu et al. 2019) used an RCT design where participants were randomly selected for different interventions. RCTs are typically regarded as the 'gold standard' for assessing the effectiveness of interventions as randomisation lessens bias by dispersing participant characteristics between groups so that different outcomes can be attributed to the intervention (Hariton & Locascio, 2018). However, randomisation of individuals into different groups is impractical in educational settings (Dreyhaupt, Mayer, Keis, Öchsner, & Muche, 2017). Thus, three studies (Fairweather-Schmidt & Wade, 2015; Klein, 2004; Wilksch et al., 2008) employed cluster RCT designs where classes were randomly allocated to different conditions. Although Rafat et al. (2018) mentioned that they randomly divided participants into experimental and control groups, they did not report on the randomisation process. As they also described the study as 'semi-experimental', the decision was made to class it as quasi-experimental.

The remaining studies were non-randomised. Most employed quasi-experimental controlled before and after designs, where pre- and post-tests were conducted on intervention and control groups. However, Kelly (2015) used a quasi-experimental uncontrolled before and after design as there was no control group. Three studies used case series designs (Hurst & Zimmer-Gembeck, 2015, 2019; Wilksch et al., 2013). Another (Akay & Bratton, 2017) used a SCED.

#### Control condition.

Of 10 studies with controls, eight used passive control groups and two used passive wait-list control groups. Three (Bento et al., 2017; Craciun, 2013; Shu et al., 2019) also used active control groups.

#### 1.3.3 Intervention Characteristics

Many studies used cognitive-behavioural approaches to intervention. Four used CBT to target perfectionism (Craciun, 2013; Hurst & Zimmer-Gembeck, 2015, 2019; Shu et al., 2019) with Shu et al. (2019) using internet-delivered CBT (ICBT). Other interventions were described as using CBT principles (Bento et al., 2017; Nehmy & Wade, 2015) and/or being based on Shafran et al.'s (2002) cognitive-behavioural model of clinical perfectionism (Fairweather-Schmidt & Wade, 2015; Nehmy & Wade, 2015; Vekas & Wade, 2017). Additionally, Rafat et al. (2018) used rational emotive behaviour therapy (REBT), a form of CBT, to target maladaptive perfectionism. Although Wilksch et al. (2008), Klein (2004) and Mofield & Chakraborti-Ghosh (2010) did not refer to using cognitive-behavioural techniques, their programmes appeared to use at least one (e.g., all included content on challenging unhelpful thoughts).

The other interventions used were quite heterogenous in nature, including Adlerian play therapy (Akay & Bratton, 2017), acceptance and commitment therapy (ACT; Kelly, 2015), meta-cognitive therapy (Hayati & Parto, 2018) and an affective curriculum (Mofield & Chakraborti-Ghosh, 2010).

The length and frequency of interventions varied widely, ranging from a single session of an unspecified length (Bento et al., 2017) to 15 weekly 2-hour sessions (Craciun, 2013). Hayati and Parto (2018) did not provide such information.

The interventions also varied in their focus on perfectionism, with some targeting perfectionism alone (Bento et al., 2017; Fairweather-Schmidt & Wade, 2015; Mofield & Chakraborti-Ghosh, 2010; Shu et al., 2019; Vekas & Wade, 2017; Wilksch et al., 2008) and others targeting additional variables. Generally, where interventions targeted multiple factors, less content focused on perfectionism. For example, in Wilksch et al. (2013), perfectionism was just one of several eating disorder risk factors targeted so only part of the two sessions delivered addressed it. Klein's (2004) intervention targeted stress management and perfectionism, with approximately half of the sessions addressing each target. Although Kelly (2015) identified perfectionism and anxiety as targets of the ACT intervention, session descriptions suggested that perfectionism was not explicitly

discussed. In some cases (Hayati & Parto, 2018; Akay & Bratton, 2017), it was unclear to what extent perfectionism was explicitly addressed as insufficient information was provided.

Most interventions were delivered in group format, with the exception of Akay and Bratton (2017) and Hurst and Zimmer-Gembeck (2015, 2019) where 1:1 sessions were used. The ICBT intervention used in Shu et al. (2019) was unguided. In Hayati and Parto's (2018) study, it was unclear how the meta-cognitive therapy was delivered.

# 1.3.4 Findings

The findings of the systematic literature review have been grouped by type of sample used: universal samples, gifted students, participants with elevated perfectionism and clinical samples. Effect sizes have been reported to provide indications of the magnitude of effects. The conventions suggested by Cohen (1988) were used to interpret effect sizes, where d = 0.2 is a small effect, d = 0.5 is a medium effect and d = 0.8 is a large effect. However, it should be noted that many researchers (e.g., Simpson, 2017) caution against comparing and amalgamating effect sizes from studies employing different measures, comparison interventions and samples with varying homogeneity.

## 1.3.4.1 Universal samples.

Six studies involved universal samples within a school setting. Most took place within secondary schools; Fairweather-Schmidt and Wade (2015) and Vekas and Wade (2017) chose primary schools. The majority used cognitive-behavioural approaches to intervention.

Due to the many studies in this section, those with a 'good' methodological quality rating will be discussed first (Fairweather-Schmidt & Wade, 2015; Vekas & Wade, 2017; Wilksch et al., 2008), followed by those with a 'fair' rating (Bento et al., 2017; Nehmy & Wade, 2014), then those with a 'poor' rating (Craciun, 2013; Hayati & Parto, 2018).

Wilksch et al. (2008) received the highest quality rating in this review. Their perfectionism intervention consisted of eight sessions covering the nature and causes of perfectionism, the difference between perfectionism and striving for high standards, challenging perfectionistic thinking, re-evaluating failure, modifying behaviour and managing perfectionism. Participants were found to have significantly lower concern over mistakes scores at 3-months follow-up than a media literacy intervention group and a

control group (d = 0.45). There was also a main effect for group for concern over mistakes (d = 0.42) and personal standards (d = 0.44). When controlling for baseline scores, the perfectionism group had significantly lower concern over mistakes scores than the control group and significantly lower personal standards scores than the media literacy group. Data indicated that a subgroup of participants identified at high risk for eating disorders particularly benefitted from the programme. At 3-months follow-up, high-risk participants in the perfectionism group had significantly lower concern over mistakes scores than high-risk participants in the media literacy and control groups and significantly lower personal standards scores than high-risk participants in the media literacy group. Of the high-risk students in the perfectionism group, 64% and 50% experienced clinically significant decreases in concern over mistakes and personal standards respectively, while 7% (equivalent to one student) experienced increases in both dimensions and remaining participants remained unchanged. This highlights that not all young people may derive the same benefit from interventions.

Fairweather-Schmidt and Wade (2015) examined the effectiveness of an intervention based on Shafran et al.'s (2002) clinical perfectionism model. The first session focused on distinguishing between maladaptive perfectionism and striving for excellence, the value of errors and discouraging basing self-worth on achievements, while the second session centred on coping with self-criticism and acknowledging achievements. Results indicated that the intervention was effective in reducing SOP-striving, a dimension of perfectionism which McCreary, Joiner, Schmidt, and Ialongo (2004) considered adaptive, at post-intervention (d = 0.47) and 4-weeks follow-up (d = 0.40). However, it was ineffective in reducing SOP-critical and SPP, dimensions regarded to be maladaptive by McCreary et al. (2004). Therefore, this intervention appeared to produce counterproductive results.

Vekas and Wade (2017) used essentially the same intervention as Fairweather-Schmidt and Wade (2015), with an additional lesson focusing on self-compassion. Again, scores of the intervention group were significantly lower than the control group at post-intervention (d = 0.35). While the researchers notably did not investigate any other perfectionism dimension, they included a measure of self-criticism, seemingly closely related to maladaptive perfectionism. Shafran et al. (2002) proposed that clinical perfectionism is maintained by self-criticism in reaction to perceived failures. Self-criticism has also been found to be positively associated with maladaptive perfectionism

(e.g., James, Verplanken, & Rimes, 2015). However, Vekas and Wade (2017) reported that differences between groups for this variable were non-significant.

While Bento et al. (2017) stated that their one-session perfectionism intervention was underpinned by CBT principles, their session outline suggested that these were not a great focus. Topics covered included the traits of adaptive and maladaptive perfectionism, examples of perfectionist behaviours and cognitions, contexts where perfectionism is relevant and strategies to lower perfectionism. The researchers reported that the intervention resulted in significant reductions in SOP, but not SPP or total perfectionism, at 2- and 6-months follow-up. Small effect sizes were found (d = 0.17 and d = 0.14 respectively). However, significant reductions in SOP at 6-months follow-up were also found for the passive control group. The effect size (d = 0.31) was larger than the intervention group's across this period, suggesting that the intervention did not provide additional benefits over a longer time frame.

Two studies (Nehmy & Wade, 2014; Craciun, 2013) examined the impact of perfectionism interventions on the DAS's (Weissman & Beck, 1978) Perfectionism subscale, regarded by Nehmy and Wade (2014) as a measure of unhelpful perfectionism. Nehmy and Wade's (2014) eight-session intervention was based on Shafran et al.'s (2002) model of clinical perfectionism and incorporated CBT principles including thinking errors, balanced thinking, challenging thoughts and exposure and response prevention. Sessions also included content on the toll of maladaptive perfectionism, the value of mistakes, the media's influence, stress and self-compassion. The researchers reported that, despite no post-intervention differences, participants receiving intervention had significantly lower unhelpful perfectionism at 6-months (d = 0.17) and 12-months (d = 0.24) follow-up than the control group.

Craciun's (2013) 15-session CBT programme focused on helping participants to develop self-acceptance, identify and challenge irrational cognitions using balanced thinking, explore links between thoughts, feelings and behaviour and learn assertiveness and relaxation strategies. The intervention resulted in significant reductions in the experimental group's perfectionism scores. Their post-intervention scores were also significantly lower than those of the active and passive control groups. However, it was unclear whether there were also differences between the pre- and post-scores of the control groups and whether pre-tests scores differed between groups. The researchers noted that an analysis of variance (ANOVA) did not find significant between group pre-test differences but reported a *p*-value of .01. An ANOVA result for a different variable with

the same *p*-value was interpreted as being significant. Thus, reporting inconsistencies limit one's ability to draw clear conclusions regarding the effectiveness of the perfectionism intervention compared to controls.

Hayati and Parto (2018) examined the effectiveness of meta-cognitive therapy on perfectionism. Without exact detail of their intervention, it is unclear whether they used metacognitive therapy as described by its developer (Wells, 2009) or a fundamentally different technique. Wells (2009) explained that the therapist attempts to modify the metacognitions that bring about maladaptive thinking patterns rather than challenging the truth of beliefs and thoughts like in CBT. In this study, perfectionism was measured using Hill et al.'s (2004) Perfectionism Inventory. Although this measure is composed of eight subscales, which may possibly be mapped onto two factors representing maladaptive and adaptive perfectionism (Hill et al., 2004), the researchers only reported an overall perfectionism score. Results suggested that when controlling for pre-test differences, the experimental group had significantly lower perfectionism post-test scores than the control group. However, reporting was poor (e.g., one table presented results which did not match those of the main body; the numbers appeared reversed). Therefore, result reliability is questionable. Neither Craciun (2013) or Hayati and Parto (2018) reported effect sizes.

Combining findings, most studies found that perfectionism interventions were effective in reducing adaptive and/or maladaptive perfectionism in universal samples. However, effect sizes were generally small or approaching medium. Some studies had weaknesses in reporting results, limiting the conclusions that could be made regarding intervention effectiveness.

#### 1.3.4.2 Gifted students.

Although some studies have reported that students meeting criteria for giftedness have higher levels of perfectionism, particularly adaptive (e.g., LoCicero & Ashby, 2000), other studies have found no distinction (e.g., Parker & Mills, 1996). Despite this, studies continue to focus on interventions to reduce their perfectionism.

The two studies focusing on gifted students received 'fair' methodological quality ratings. Mofield and Chakraborti-Ghosh (2010) used an affective curriculum intervention. The authors explained that such interventions aim to meet students' emotional needs (Johnsen, 2000). The nine-session intervention included content on: the difference between maladaptive perfectionism and striving for excellence, sources and consequences of perfectionism, sharing experiences, problem-solving, relaxation strategies, challenging

negative thinking and setting attainable goals. The researchers reported no differences between the post-intervention scores of the control and experimental groups on any of the perfectionism dimensions studied. While no pre-test differences were noted between groups, the researchers did not provide analyses to determine any significant changes between the pre- and post-intervention scores for both groups.

Separate analyses were conducted on a subgroup of students with medium to high levels of maladaptive perfectionism. For the experimental group, the post-test scores were significantly lower than pre-test scores for personal standards and concern over mistakes, with effect sizes ranging from small to medium (d = 0.40 and d = 0.58 respectively). Although statistical results were omitted, the researchers also reported significant decreases from pre- to post-test for doubts about actions, with a small effect size. However, these results should be interpreted alongside the finding that the control group's concern over mistakes and parental expectations scores also significantly decreased from pre- to post-test, with effect sizes ranging from small to medium (d = 0.36 and d = 0.50 respectively). A smaller effect size was found for the control group's decrease in concern over mistakes scores but decreases across both groups indicated that the intervention may not have been as effective on this outcome as initially suggested.

Klein's (2004) 13-session intervention included modules on stress and time management, perfectionism and relaxation. The perfectionism modules addressed the nature of perfectionism (including thoughts, feelings and behaviour), the importance of basing self-worth on personal qualities rather than achievements, the benefits of mistakes, using positive thinking to challenge negative thoughts maintaining perfectionism, and challenging participants' perceptions that others expect perfection from them. No 'group  $\times$  time' interactions were found for any perfectionism outcomes (personal standards, concern over mistakes, doubts about actions and SPP), indicating that the intervention had no impact on perfectionism. The author suggested that the low sample size (N = 62) and power may have contributed to the non-significant results.

Both studies stated that interventions were designed to promote adaptive perfectionism whilst reducing maladaptive perfectionism (but Klein, 2004, did not follow this up). Neither was successful in achieving the former aspiration. In fact, in Mofield and Chakraborti-Ghosh's (2010) study, the personal standards of the experimental group with elevated perfectionism significantly decreased from pre- to post-test. The authors argued that the intervention might have resulted in participants setting more attainable goals and learning to avoid basing their self-worth on goal achievement.

Overall, the limited studies on gifted students yielded mixed results, with Mofield and Chakraborti-Ghosh (2010) reporting some positive effects for students with elevated maladaptive perfectionism and Klein (2004) reporting null effects. The better results of the former intervention might have been due to its more exclusive focus on perfectionism.

## 1.3.4.3 Participants with elevated perfectionism.

Three studies focused on participants with elevated maladaptive perfectionism levels (Akay & Bratton, 2017; Rafat et al., 2018) or who self-identified as experiencing problems with perfectionism (Shu et al., 2019). Mofield and Chakraborti-Ghosh's (2010) previously described subgroup analysis on gifted participants with elevated maladaptive perfectionism should also be considered here. While Akay and Bratton (2017) and Rafat et al.'s (2018) studies were deemed of low methodological quality, Shu et al. (2019) received a 'good' rating.

Rafat et al. (2018) used eight sessions of REBT, a form of CBT, to target negative perfectionism and burnout in a sample of athletes with high levels of negative perfectionism. Sessions focused on discussing the nature and consequences of perfectionism and burnout in athletes, challenging irrational cognitions and replacing 'unhealthy' negative emotions with healthier ones. Results suggested a reduction in negative perfectionism for the experimental group and a slight increase for the control group. While there was a significant difference in mean changes in negative perfectionism scores between groups, changes in mean positive perfectionism scores were insignificant. Effect sizes were unreported. The study's results satisfied the intervention's aims of reducing negative while maintaining positive perfectionism.

Akay and Bratton's (2017) SCED study alone included a combination of self- and other-report measures. Percentage of data exceeding the median analysis indicated that the Adlerian play therapy intervention was ineffective in reducing the single participant's perfectionism (SOP and SPP). However, individual phase analysis suggested an improvement (with a medium effect size,  $R^2 = 0.14$ ) in SPP that was not maintained post-intervention. These results (based on the self-report data) were inconsistent with those from teacher and parent reports, indicating that the participant's perfectionism levels reduced from the clinical to normal range over the intervention and were preserved in the maintenance phase. The authors seemed to attribute the source of the disparity to the participant's self-report scores, which they suggested may have been inaccurate due to the influence of a social desirability bias or misinterpretation of reverse phrased items. They

also questioned the psychometric properties of the CAPS (Flett et al., 2016) measure used, potentially because the test-retest reliability correlation statistics cited for the SOP and SPP subscales were below the .90 value considered acceptable for making decisions about individuals (Nunnally & Bernstein, 1994). An alternative explanation ignored by the researchers is that the parent and teacher ratings were possibly influenced by observer bias.

Shu et al. (2019) investigated the impact of ICBT for perfectionism (ICBT-P) on clinical perfectionism, conceptualised as composed of two factors (perfectionistic strivings and perfectionistic concerns). Topics covered in the eight sessions included describing the nature of perfectionism, creating an individual formulation, increasing motivation to modify perfectionism, challenging unhealthy perfectionistic thoughts and actions, selfcompassion and widening criteria for self-worth assessment. Researchers reported that the ICBT-P group had significantly lower perfectionistic concerns at post-intervention than the active control group (which received ICBT for stress management; ICBT-S) and the waitlist control group. Medium effect sizes were obtained (d = 0.56 and d = 0.69 respectively). Furthermore, both the ICBT-P and ICBT-S groups had significantly lower perfectionistic strivings than the control group, with medium effect sizes (d = 0.75 and d = 0.59respectively). At 3- and 6-months follow-up, the ICBT-P group had significantly lower perfectionistic concerns and strivings than the control group and significantly lower scores than the ICBT-S group on most outcomes. Effect sizes ranged from medium to large (d =0.52–0.84). ICBT-P was also found more effective than ICBT-S in preventing increases in perfectionistic concerns over 6-months follow-up. Despite positive results, there was high attrition and low adherence amongst participants, suggesting that participant acceptability was low. Also, participants may have differently interpreted the recruitment criterion of experiencing problems with perfectionism, meaning considerable variation in their perfectionism levels.

Programmes based on cognitive-behavioural principles appeared most effective in reducing perfectionism amongst CYP with elevated maladaptive perfectionism or experiencing difficulties with perfectionism. Due to its higher methodological rating, Shu et al. (2019) provided the most convincing findings. The mixed results of Akay and Bratton's (2017) study make it difficult to evaluate the effectiveness of play therapy on perfectionism.

# 1.3.4.4 Clinical samples.

Of the four studies on clinical samples, two involved female participants with anorexia diagnoses (Hurst & Zimmer-Gembeck, 2015, 2019). Wilksch et al. (2013) recruited female participants with type 1 diabetes diagnoses, as there appears a high prevalence of eating disorders in this population (Jones, Lawson, Daneman, Olmsted, & Rodin, 2000). Kelly (2015) recruited female participants who met diagnostic criteria for a primary anxiety disorder. When considering these studies, it should be noted that all received a 'poor' or 'fair' rating, and none used control groups, so it cannot be confidently determined whether any outcome changes were due to intervention.

Hurst and Zimmer-Gembeck (2015) used a CBT for perfectionism (CBT-P) intervention based on Shafran et al.'s (2002) model of clinical perfectionism. It included nine modules, delivered 1:1, covering: the causal and maintaining factors for perfectionism, advantages and disadvantages of changing perfectionism, strategies for lowering perfectionistic actions, challenging perfectionistic thoughts and widening criteria of self-worth assessment. The researchers reported reductions in SOP and SPP for the three participants. After completion of all interventions, including also family-based treatment (FBT) targeting anorexia, scores decreased further or were maintained. However, the findings were presented on a bar chart with no statistical analysis, so their usefulness is limited.

Hurst and Zimmer-Gembeck (2019) later completed a similar study using the same interventions with a larger sample. Compared to pre-intervention, EDI-3 perfectionism, EDI-3 overcontrol and SOP scores, but not SPP scores, were significantly lower both following CBT-P and completion of all interventions, with small to medium effect sizes (*d* = 0.43–0.76). Reliable change indices indicated that many participants reported decreases in SOP (53%), SPP (32%), EDI-3 perfectionism (58%) and EDI-3 overcontrol (53%) but 11% reported increases for each measure, highlighting that the intervention combination might not be appropriate for all young females with anorexia. A shared limitation of both studies by Hurst and Zimmer-Gembeck (2015, 2019) is that CBT-P and FBT were implemented simultaneously so it was impossible to determine the additional benefits of CBT-P without an FBT-only control group. Nevertheless, as FBT was implemented before CBT-P, analysis conducted by Hurst and Zimmer-Gembeck (2019) revealed no significant changes in perfectionism before CBT-P introduction.

Wilksch et al. (2013) used a two-session programme targeting risk factors for eating disorders. It included content on exploring perfectionism and its features and resulted in significant reductions in personal standards and concern over mistakes from baseline to post-intervention, with effect sizes ranging from small to medium (d = 0.48 and 0.65 respectively). Improvements were maintained one month later. While some decreases in personal standards (d = 0.35) and concern over mistakes (d = 0.28) occurred prior to implementation of the intervention, effect sizes were larger for changes over the intervention period.

Finally, Kelly (2015) used ACT to target perfectionism and anxiety in participants with anxiety. The eight sessions included content on the nature of stress and anxiety, the management of past challenging experiences (e.g., failing), accepting comfortable and uncomfortable emotions and cognitions, mindfulness exercises and identifying values and value-consistent behaviours. The researcher concluded that the intervention was ineffective, with no significant changes in participants' SOP and SPP scores nor adaptive or maladaptive perfectionist classifications. However, maladaptive perfectionism scores significantly increased (d = 0.34) from pre- to mid-intervention before significantly declining (d = 0.31), again from mid-intervention to 4-months follow-up. A similar trend was observed for SOP and SPP. Kelly (2015) thought this due to participants becoming more aware of maladaptive cognitions and actions during ACT. No such pattern emerged for adaptive perfectionism scores, which remained relatively stable, potentially providing evidence that the intervention affected various aspects of perfectionism differentially.

Overall, these results suggest that interventions may reduce perfectionism in females with eating disorders or those at risk of developing them. Reported effect sizes were mostly medium or approaching medium. Conversely, the ACT intervention was ineffective in reducing perfectionism in females with anxiety.

#### 1.4 Discussion

This systematic literature review aimed to evaluate the evidence for the effectiveness of interventions targeting perfectionism in children and adolescents, contributing a novel and needed synthesis of available research. Studies meeting the inclusion criteria varied greatly in many respects, including the outcome measures used, type and intensity of interventions and participant characteristics. Therefore, it is difficult to draw definitive conclusions from the overall pool of results. Nevertheless, certain key findings emerged which warrant discussion regarding: potential of interventions to reduce perfectionism, the

dimensions reduced, those for whom interventions were effective and characteristics of effective interventions. These are examined in light of psychological theory and research. There then follows a discussion of the strengths and weaknesses of the included studies, and finally of the implications for future research and wider professional practice.

Importantly, one can confidently infer that is possible to reduce perfectionism in CYP through intervention, as many included studies were successful in this aim. However, most studies measured more than one perfectionism dimension, in line with a multidimensional approach, and effective interventions were not always successful in reducing each dimension studied. Furthermore, in all but one study participants were aged 10 and above and could be considered adolescents, according to World Health Organization (2014) criteria. Accordingly, the effectiveness of perfectionism interventions with younger children remains unknown.

This review grouped findings according to the participant type targeted. Results suggested that perfectionism interventions were effective for individuals across a range of target populations. More specifically, in universal samples and samples with elevated perfectionism, interventions were often found effective in reducing some or all aspects of perfectionism. Most studies with clinical samples were conducted with female participants who had eating disorders or were at risk of developing them. Although interventions here appeared effective in reducing some or all perfectionism dimensions studied, conclusions were limited by the absence of control groups. Further research is needed to evaluate the impact of perfectionism interventions on males with eating disorders and samples with other psychological conditions. The findings of studies with gifted students were not as encouraging as those with other sample types, with no overall differences between experimental and control groups. Potentially, this was due to study limitations: One study did not examine effects over time (Mofield & Chakraborti-Ghosh, 2010) while another did not focus exclusively on reducing perfectionism (Klein, 2004).

Although many interventions were found effective in reducing perfectionism in most sample populations, it should not be assumed that they benefitted all their recipients. This was highlighted by two studies (Hurst & Zimmer-Gembeck, 2019; Wilksch et al., 2008) reporting reliable change indices, which indicate whether a change in a participant's score is statistically significant. They indicated that, while most experienced reductions in perfectionism, some participants were unchanged and a few experienced increases. This is a reminder of CYP diversity, opposing a 'one size fits all' approach. Therefore, the impact

of interventions on individuals should be carefully monitored to take appropriate action if adverse effects are observed.

Most studies included in this review used cognitive-behavioural intervention approaches, consistent with those reviewed by Lloyd et al. (2015) and Suh et al. (2019) in their meta-analyses with adults. These were generally effective in reducing some or all perfectionism dimensions targeted, suggesting that perfectionists can engage with CBT. Thus, Mitchell et al.'s (2013) reservations that perfectionists might not engage with this approach, due to rigid adherence to high standards, seemed unsupported. Positive results were found for cognitive-behavioural interventions delivered 1:1, in classes or via the internet. Other interventions which showed promise were Adlerian play therapy and metacognitive therapy. However, as they were only used in single low-quality studies, further research is necessary to make firmer conclusions regarding efficacy.

As previously highlighted by Flett and Hewitt (2014), interventions with less central focus on reducing perfectionism appeared less effective. The two studies not reporting any effects (Kelly, 2015; Klein, 2004) targeted perfectionism alongside another target (anxiety and stress respectively). Although some other interventions targeting multiple outcomes did reduce perfectionism (e.g., Wilksch et al., 2013), the most effective tended to exclusively target perfectionism. Another difficulty with interventions targeting multiple outcomes is that changes in perfectionism cannot necessarily be attributed to intervention aspects specifically aimed at addressing perfectionism, as elements addressing other target outcomes may, instead or additionally, be responsible.

There was some evidence to suggest that relatively brief interventions can be effective in reducing perfectionism, as those consisting of two sessions resulted in reductions maintained at follow-up (Fairweather-Schmidt & Wade, 2015; Wilksch et al., 2013). While a single session intervention (Bento et al., 2017) initially appeared successful in reducing one perfectionism dimension, the advantage was not maintained at 6-months follow-up, suggesting that brief intervention may be insufficient to produce lasting benefits. Further research is required to reach firmer conclusions regarding optimum intervention length and frequency.

Where studies used follow-up measures, reductions in perfectionism were generally maintained. However, only one study (Nehmy & Wade, 2014) followed up beyond 6-months. Therefore, longitudinal studies are needed to assess the longer-term effects. Interestingly, four studies (Hurst & Zimmer Gembeck, 2015; Nehmy & Wade, 2014; Shu

et al., 2019; Wilksch et al., 2008) showed evidence of a 'sleeper effect' where more positive outcomes for some variables were found at follow-up than post-intervention. Wade (2018) noted this effect in a review of three school-based perfectionism interventions, suggesting that participants may not fully benefit until they have had opportunities to apply newly acquired skills to challenging situations.

A major review finding was that interventions with adolescents reduced aspects of perfectionism viewed as adaptive, as well as maladaptive, in line with Lloyd et al.'s (2015) and Suh et al.'s (2019) meta-analyses. While some studies explicitly targeted maladaptive perfectionism, many did not distinguish between adaptive and maladaptive, and appeared to target general perfectionism. One study (Vekas & Wade, 2017) seemed even to target adaptive perfectionism, including only one perfectionism dimension (SOP-striving) conceptualised as adaptive (McCreary et al., 2004). The study by Mofield and Chakraborti-Ghosh (2010) was unique in the aim of reducing maladaptive perfectionism whilst promoting a healthy striving for high standards, associated with adaptive perfectionism. However, it was unsuccessful in the latter aim, reducing both adaptive and maladaptive perfectionism dimensions in a subgroup of participants.

Adaptive perfectionism has been associated with many positive outcomes in adolescents, including academic achievement and confidence, motivation, self-esteem and life satisfaction (Accordino et al., 2000; Gilman et al., 2005; Nounopolous, Ashby, & Gilman, 2006). Given such links and the results of factor analyses providing evidence for adaptive and maladaptive perfectionism dimensions (e.g., Frost et al., 1993), the researcher suggests that interventions should ideally target maladaptive perfectionism while attempting to preserve or enhance adaptive perfectionism. Therefore, it will be important for future intervention studies to specify perfectionism dimensions targeted and reason(s) for selection. To this end, considerable work must first be done to agree which dimensions are adaptive and maladaptive in children and adolescents, and which measures best capture these. For example, there is much debate concerning whether SOP is adaptive. Most discussed studies seemed to conceptualise it as maladaptive, inconsistent with the results of factor analyses which suggest otherwise.

## 1.4.1 Strengths and Limitations of the Reviewed Studies

When interpreting findings, it is important to consider the strengths and limitations noted across many of the included studies. The Downs and Black (1998) checklist revealed several shared strengths: all clearly described study aims and outcomes measured,

and almost all clearly described interventions and participants' characteristics.

Perfectionism measures seemed to have acceptable validity and reliability based on information provided. Another positive feature was that most studies used follow-up measures to assess the maintenance of effects. However, no study received an 'excellent' methodological quality rating and only four received 'good'. The rest were deemed of fair or low quality. Therefore, studies with greater methodological rigour are required to increase the trustworthiness of findings.

Several methodological weaknesses across studies were identified using the Downs and Black (1998) checklist. In studies using experimental and control groups, little effort appeared to be made to blind participants and researchers to group allocation (except for Shu et al. (2019), where researchers, but not participants, were blinded). Blinding may have been difficult as researchers were frequently involved in intervention delivery and many studies only used passive control groups, so participants could probably determine whether they were in the experimental or control group. Another source of potential bias was that few studies attempted to assess the fidelity of programme delivery and participant adherence. Furthermore, most provided insufficient information to check whether samples were representative of target populations, resulting in low scores for external validity. Finally, of only three studies conducting and reporting power analyses, Vekas and Wade (2017) alone achieved a sample size sufficient to detect a significant effect.

Other general limitations were noted. All studies used self-report measures, which are subjective and can be affected by social desirability bias. Future studies should use additional methods to triangulate self-report data. For example, Akay and Bratton (2017) incorporated teacher and parent reports. It should also be mentioned that while the perfectionism measures appeared to have acceptable validity and reliability, evidence of their validation with children and/or adolescents could not be found for certain measures, namely Terry-Short et al.'s (1995) Positive and Negative Perfectionism Scale and Hill et al.'s (2004) Perfectionism Inventory.

Almost all studies adopted a within-person approach to intervention with adolescents as recipients. This neglects the role of interpersonal and cultural factors in the development of perfectionism and encourages a within-person view. As most research on perfectionism's development has focused on parental factors to date, Morris and Lomax (2014) argued that future studies should examine the effectiveness of interventions directed at parents in reducing perfectionism. More research should focus on the role of other key individuals in CYP's lives, as well as environmental and cultural factors, in influencing the

development of perfectionism, as this may provide further promising avenues for intervention.

Some included studies attempted to involve parents. Shu et al. (2019) and Klein (2004) sent them newsletters to help their children implement programme skills. Wilksch et al. (2013) invited parents to meetings to provide information on risk factors for eating disorders (including perfectionism). However, only Akay and Bratton (2017) attempted to change teachers' and parents' behaviour, including them in several consultations with the play therapist delivering the intervention. Akay's (2013) thesis proposed that adults were encouraged to consider how they might be maintaining the child's behaviour and to explore ways of changing their practices to support them.

Notably, half of the studies were conducted in Australia but none in the UK. Caution should be used when generalising findings to populations from different countries. Also, while many school-based interventions were included in this review, only one was delivered by school staff (Mofield & Chakraborti-Ghosh, 2010). Further U.K. research is clearly necessary, specifically in schools, to determine whether staff trained in delivering perfectionism interventions can produce beneficial effects and whether the relationship with the facilitator makes a difference. This is pertinent as research with U.K. secondary school students found that they prefer mental health education to be delivered by familiar individuals, such as teachers or school nurses (Woolfson, Woolfsen, Mooney, & Bryce, 2009).

## 1.4.2 Strengths and Limitations of the Review

This review itself had several strengths and limitations. By synthesising intervention studies explicitly targeting perfectionism in CYP, it will fill an identified gap in the literature. It included studies with different participant sample types and a broad range of research designs, not limited to RCTs, which are less feasible in school settings, an aspect of interest to this review. Its wide focus is also important for providing an initial overview of interventions in this area with relevance to various stakeholders. Finally, the researcher included dissertations and doctoral theses to decrease risk of publication bias. While dissertations are not subjected to peer-review, the viva process can act as a rigorous review process.

The review also had limitations. One researcher, with some support from the research team, predominately undertook the various steps of the systematic review (e.g.,

screening studies, data extraction and quality assessment). Involvement of another independent reviewer at each step may have reduced the risk of bias. The review only focused on the effectiveness of interventions on perfectionism. Many included studies explored the impact of interventions on additional outcomes such as eating disorder symptoms and negative affect, in line with the view that perfectionism is a transdiagnostic process (Egan et al., 2011). Future reviews would benefit from examining whether perfectionism interventions can improve other outcomes. The current review also excluded several studies where perfectionism was indirectly targeted. For example, Mitchell et al. (2013) examined whether an intervention targeting anxiety impacted upon perfectionism. Future reviews and meta-analyses could systematically compare outcomes of such studies with those directly targeting perfectionism.

## 1.4.3 Implications for Educational Psychologists

In recent years, Educational Psychologists (EPs) have become more concerned with supporting CYP's mental health and well-being (Greig, MacKay, & Ginter, 2019). The Green Paper for Transforming CYP's Mental Health Provision (Department of Health and Social Care and Department for Education, 2017) stated that EPs have a key role to play here. Amongst CYP, maladaptive perfectionism has been linked with various mental health difficulties and there is evidence that perfectionism is increasing (Curran & Hill, 2019). Therefore, it is important for EPs to develop a good understanding of this topic from the literature, including developmental factors, signs of perfectionism, the difference between adaptive and maladaptive perfectionism, and effectiveness of support strategies. This understanding could assist any consultations, formulations or advice for CYP who may demonstrate maladaptive perfectionist thinking and behaviour.

EPs are also well placed to deliver training to disseminate evidence-based information on perfectionism to school staff and parents or carers. They should highlight that, while successful in reducing perfectionism in adolescents, intervention with CYP is still in its infancy and there are many issues for future research to address. Crucially, EPs should make stakeholders aware that interventions come with the risk of reducing adaptive perfectionism in addition to maladaptive perfectionism. Consequently, decisions on implementation of perfectionism interventions must be made cautiously.

Importantly, EPs have a role to play in highlighting that interventions should be conducted with CYP and not on them. Therefore, stakeholders must consider intervention acceptability and whether CYP are willing or motivated to change their perfectionism

before any implementation. When seeking consent, CYP should be made aware that some interventions may reduce positive aspects of perfectionism, including high standards. EPs can also support others to consider factors associated with intervention delivery, which can impact upon effectiveness. For example, research suggests that a more positive therapeutic alliance can produce more favourable intervention outcomes with CYP (e.g., Shirk, Gudmundsen, Kaplinski, & McMakin, 2008).

This systematic review has highlighted many areas that would benefit from further exploration. EPs can assist by applying their skills to activities such as action research projects. As mentioned, further U.K. research is necessary with CYP.

Finally, EPs may have an important role to play in challenging a within-person perspective that is dominant in the perfectionism research. Through systemic approaches, EPs can explore how key individuals in CYP's lives and their environment may contribute to difficulties with perfectionism to identify appropriate support strategies and affect positive change in systems and wider culture negatively impacting upon mental health.

#### 1.4.4 Conclusion

The research evidence reviewed suggests that interventions targeting perfectionism can reduce perfectionism in adolescents from clinical and non-clinical samples and those with elevated perfectionism. Most studies used approaches informed by CBT, which were generally effective. Notably, however, interventions studied were often ineffective in lowering all perfectionism dimensions measured. Furthermore, dimensions conceptualised as adaptive, in addition to maladaptive, were frequently reduced. Few high-quality studies were identified, with many methodological limitations across papers, so caution should be used when interpreting findings and making decisions on intervention implementation.

Many areas for further research have been suggested, including the long-term impact of interventions, factors promoting efficacy and the effectiveness of perfectionism interventions targeted at younger children, parents and systemic factors. However, for this research to be most helpful, further clarity and agreement is needed about the nature of perfectionism in CYP, which aspects are adaptive and maladaptive and how these should be measured. Within the UK's current competitive educational context, where high aspirations and high achievement are encouraged and celebrated, it seems vital for CYP, parents, teachers and EPs to understand clearly when perfectionism can be healthy and

beneficial for CYP, and when it is not. Such knowledge is fundamental to future decisions on merits or drawbacks of any intervention.

Chapter 1

# Chapter 2 A Mixed Methods Study Exploring Perfectionism, Well-being and Flourishing in U.K. Secondary School Students

# 2.1 Introduction

The rise in mental health issues amongst children and young people (CYP) has received considerable media attention, with many describing it as a growing crisis (e.g., Cowburn & Blow, 2017, p. 4). A 2017 survey on the mental health of CYP in England found that one in 12 5 to 19-year-olds had a diagnosable emotional disorder, including anxiety and depression. Furthermore, the rate in 15-year-olds increased from 3.9% in 2004 to 5.8% in 2017 (NHS Digital, 2018). Research suggests that mental health issues start early, with 50% of disorders beginning by age 14 and 75% by 24 (Kessler et al., 2005).

While it is likely that many complex and interacting factors contribute to the high prevalence of mental health issues amongst CYP, researchers have suggested that increases in perfectionism may be partly responsible (e.g., Curran & Hill, 2019; Flett & Hewitt, 2014).

# 2.1.1 Conceptualisations of Perfectionism

There is disagreement regarding the definition and conceptualisation of perfectionism in the literature. Many researchers have used Frost, Marten, Lahart, and Rosenblate's (1990, p. 450) definition that perfectionism involves "high standards of performance which are accompanied by tendencies for overly critical evaluations of one's own behaviour". This construal of perfectionism as unhelpful is in line with other early theorists (e.g., Burns, 1980; Pacht, 1984) who viewed perfectionism as a unidimensional concept usually resulting in negative outcomes.

As more researchers turned their focus towards understanding perfectionism, new multidimensional conceptualisations emerged. Frost et al. (1990) proposed six dimensions: personal standards, concern over mistakes, organisation, doubts about actions, parental expectations and parental criticism. Hewitt and Flett's (1991) conceptualisation made a clearer distinction between intrapersonal and interpersonal aspects by describing three

components: self-oriented perfectionism (SOP), other-oriented perfectionism (OOP) and socially prescribed perfectionism (SPP).

# 2.1.2 Adaptive and Maladaptive Perfectionism

Hamachek (1978) was pivotal in conceiving perfectionism as adaptive or maladaptive. He distinguished between normal and neurotic perfectionists. Normal perfectionists set achievable standards, gain satisfaction from efforts to achieve them and can lower them in some scenarios. Conversely, neurotic perfectionists set themselves impossibly high standards, are unable to lower them and consider their efforts insufficient. Similar dichotomies have since distinguished between positive and negative forms of perfectionism, including adaptive and maladaptive (Rice, Ashby, & Slaney, 1998), healthy and unhealthy (Stumpf & Parker, 2000) and perfectionistic strivings and concerns (Stoeber & Otto, 2006).

Slade and Owens (1998) proposed a dual process model, rooted in Skinner's (1969) reinforcement theory, to account for differences between positive and negative perfectionism, where efforts to achieve goals are motivated by positive reinforcement and an urge to succeed (i.e., approach behaviour) or by negative reinforcement and a need to avoid failure (i.e., avoidance behaviour). Therefore, while positive perfectionists can feel satisfied by achievement and are relatively unaffected by failure, negative perfectionists can never feel satisfied due to the threat of future failure.

Support for the distinction between adaptive and maladaptive perfectionism has been provided by factor analysis on the most popular perfectionism measures. For example, Frost, Heimberg, Holt, Mattia, and Neubauer's (1993) factor analysis of the subscales of Frost et al.'s (1990) and Hewitt and Flett's (1991) perfectionism measures produced a two-factor solution. A 'positive strivings' factor included subscales deemed to represent more positive facets of perfectionism (SOP, OOP, Personal Standards and Organisation) while a 'maladaptive evaluative concerns' factor included those deemed to represent negative facets (SPP, Doubts about Actions, Concern over Mistakes, Parental Expectations and Parental Criticism). The former factor was associated with positive affect whereas the latter was associated with depression and negative affect.

Consequently, studies now commonly include measures of adaptive and maladaptive perfectionism. However, researchers have adopted different approaches. Some have taken a dimensional approach, assuming that individuals vary on a continuum on two separate

dimensions representing adaptive and maladaptive perfectionism. Others have used a group-based approach, grouping individuals by characteristics associated with different forms of perfectionism (Stoeber & Otto, 2006). An influential group-based model is the tripartite model. While initially suggested by Parker (1997), Rice and Ashby's (2007) tripartite model is currently more widely cited, describing three perfectionism groups: adaptive, maladaptive and non-perfectionists (Stoeber, 2012).

Despite increased acceptance of adaptive perfectionism, some researchers remain unconvinced (e.g., Hewitt, Flett, & Mikail, 2017), chiefly due to a belief that perfectionism is fundamentally harmful. A negative bias persists in the literature, resulting in a plethora of studies exploring links between perfectionism and detrimental outcomes (Suh, Gnilka, & Rice, 2017). Studies have often failed to include measures of positive well-being despite recognition that "mental health is more than the absence of mental illness" (World Health Organization, 2004, p. 14).

# 2.1.3 Well-being and Flourishing

The positive psychology movement (Seligman & Csikzentmihalyi, 2000) has transferred focus from a deficit model of human functioning to the study and promotion of factors that help people to flourish. Seligman and Csikzentmihalyi (2000), highlighted that researchers might identify these and share insights on how to protect against mental disorders and promote flourishing.

One positive psychology topic receiving considerable attention is well-being. Two different study approaches have emerged. The hedonic view involves the experience of positive emotions and pleasure while avoiding pain and is generally studied using the construct of subjective well-being (Diener, 1984), which is composed of positive affect, the absence of negative affect and life satisfaction. Conversely, the eudaimonic view is concerned with human functioning, encapsulating topics including meaning and self-actualisation (Ryan & Deci, 2001). Ryff's (1989) influential model of psychological well-being embraced this perspective, incorporating autonomy, self-acceptance, purpose in life, relations with others, environmental mastery and personal growth. After appraising both approaches, Ryan and Deci (2001) concluded that well-being is a multidimensional concept, comprising hedonic and eudaimonic elements.

The term 'flourishing' has been used to describe individuals with elevated levels of hedonic and eudaimonic well-being (Schotanus-Dijkstra et al., 2016). Huppert and So (2013) also defined it as "the experience of life going well" and "a combination of feeling good and functioning effectively" (p. 838). Others have called it "the ultimate end-state in psychology" (Schotanus-Dijkstra et al., 2016, p. 1351) and "the pinnacle of good mental health" (Keyes, 2016, p. 100).

Several conceptualisations of flourishing have been proposed. Seligman's (2011) PERMA theory postulates that flourishing is composed of five elements: positive emotion, engagement, relationships, meaning and accomplishment. Huppert and So's (2013) conceptual framework asserts that an individual is flourishing if they display a certain combination of 10 dimensions: positive emotion, self-esteem, optimism, resilience, emotional stability, vitality, competence, positive relationships, meaning and engagement.

In this research, Keyes's (2002) conceptualisation of flourishing will be used. He proposed that mental well-being encompasses emotional, psychological and social wellbeing. Emotional well-being (EWB) includes Diener's (1984) aspects of subjective wellbeing. Psychological well-being (PWB) includes Ryff's (1989) previously described dimensions. Social well-being (SWB) reflects how individuals function well socially, including social actualisation, integration, contribution, coherence and acceptance (Keyes, 1998). While EWB reflects hedonic well-being, PWB and SWB reflect eudaimonic well-being. According to Keyes's conceptualisation, an individual can only be classed as flourishing by demonstrating high levels of both hedonic and eudaimonic well-being; possessing one is insufficient.

## 2.1.4 Perfectionism and Flourishing

In 2015, Flett and Hewitt argued that perfectionism "is far from synonymous with mental health and wellbeing" (p. 46) and undermines flourishing. Unfortunately, little research existed to substantiate or refute this claim, and very few relevant studies have been published since. Stoeber and Corr (2016) found that while SOP (generally accepted to represent an adaptive aspect) was positively associated with flourishing, SPP (generally accepted to represent a maladaptive aspect) was negatively associated. A study limitation is that Diener et al.'s (2010) Flourishing Scale was used to measure flourishing but this only assesses eudaimonic well-being (Schotanus-Dijkstra et al., 2016). Birch, Riby, and McGann

(2019) examined relationships between perfectionism and Seligman's (2011) PERMA model. PERMA elements were positively predicted by SOP and OOP and negatively predicted by SPP. However, SOP was notably significantly correlated with OOP and SPP. Failure to control for overlap between these variables may have resulted in suppression and/or inflation of relationships between different types of perfectionism and well-being outcomes. Suh, Gnilka, and Rice (2017) reported that adaptive perfectionists (APs) had greater happiness, presence of meaning and life satisfaction levels than maladaptive perfectionists (MPs) and non-perfectionists. Non-perfectionists' scores mostly fell between those of APs and MPs. Unfortunately, only one aspect of eudaimonic well-being was investigated.

A shared limitation of these studies is that participants were mainly university students. The researcher is unaware of any studies investigating perfectionism and flourishing in school students.

# 2.1.5 Perfectionism and Well-being in Secondary School Students

Further research into perfectionism and well-being in secondary school students is warranted as researchers (e.g., Spear, 2000) have highlighted adolescence as a period of increased stress. Adolescents experience extensive cognitive and biological development, school transition, increased independence and peer relationship pressure (Roeser, Eccles, & Sameroff, 2000). While such changes can encourage positive development in some adolescents, they may negatively impact upon others' mental health (Gutman & Eccles, 2007).

As adolescents spend significant time in school, this context is likely to substantially influence their well-being. Fredrick, Demaray, and Jenkins (2017) highlighted that they face greater academic and social pressures. Secondary schools evaluate performance more stringently and examine more frequently, just as adolescents are increasing in self-awareness and social comparison (Eccles & Midgley, 1989). Potentially, this could heighten some students' perfectionistic inclinations. Indeed, Speirs Neumeister, Williams, and Cross (2007) found that some adolescent MPs reported increased perfectionistic behaviours caused by a demanding school environment.

Students may face many knock-backs and school difficulties, such as challenging work, disappointing exam results and stress. Martin and Marsh (2008) termed 'academic buoyancy' to describe students' ability to manage these effectively. Since a defining feature

of maladaptive perfectionism is the experience of distress caused by discrepancy between standards and performance (Slaney, Rice, Mobley, Trippi, & Ashby, 2001), one might expect those affected to struggle in situations where ability to reach elevated standards is tested. Kottman and Ashby (2000) proposed that youth with maladaptive perfectionistic tendencies worry greatly over failure to achieve high standards, becoming highly self-critical and disheartened by it. In contrast, APs do not worry excessively about achievement. Rather than discourage, setbacks and failures increase their motivation to try harder. Such differences may explain negative mental health outcomes reported for youth displaying maladaptive perfectionism, including academic burnout (Shih, 2012), depression and anxiety (Einstein, Lovibond, & Gaston, 2000), as well as positive outcomes for APs, such as greater life satisfaction, academic motivation and achievement (Accordino, Accordino, & Slaney, 2000; Gilman, Ashby, Sverko, Florell, & Varjas, 2005). Clearly, further research to illuminate how APs navigate school challenges might inform future understanding of such differences and suggest supportive intervention for those struggling.

To date, few studies have investigated why APs may have higher well-being (Suh et al., 2017). Nevertheless, several promising lines of research have recently emerged through quantitative studies. Some researchers have questioned whether APs have higher levels of perceived social support. Feeling that others are there for them at stressful times may increase confidence in their ability to cope with challenges (Nounopolous, Ashby, & Gilman, 2006). Fredrick et al. (2017) examined associations between perfectionism, social support, anxiety and depression in students aged 11–15. Adaptive perfectionism was negatively associated with anxiety and depression; maladaptive perfectionism was positively associated. Additionally, APs reported greater teacher support than maladaptive and non-perfectionists and greater classmate support than non-perfectionists. Social support was also found to reduce the relationship between maladaptive perfectionism and anxiety or depression. Although Fredrick et al. (2017) did not examine social support as a moderator for APs, Dunkley, Blankstein, Halsall, Williams, and Winkworth (2000) reported that increased social support also reduced distress in APs.

Another research avenue has explored the role of coping strategies. Slade and Owens's (1998) dual process model might predict that when confronted with challenges, APs may be more likely to use problem-focused coping strategies to directly tackle problems, whereas MPs may use avoidant coping strategies such as denial and disengagement. Problem-focused strategies are usually linked to positive health outcomes while avoidant

coping strategies are linked to more negative outcomes (Boals, vanDellen, & Banks, 2011). Furthermore, coping strategies have been found to mediate relationships between perfectionism and mental health outcomes (e.g., Hill, Hall, & Appleton, 2010; Dunkley et al., 2000).

While quantitative studies have identified factors to explain links between adaptive perfectionism and positive well-being outcomes, this area is still not well understood. Qualitative research methods could help, as they may add to psychological knowledge about phenomena by providing 'thick' description, challenging preconceptions and informing theory generation (Willig, 2019). Unfortunately, quantitative studies on perfectionism greatly outnumber qualitative ones (Farmer, Mackinnon, & Cowie, 2017). Studies conducted in educational settings have explored differences in adaptive and MPs' interpretations of successes and failures (Speirs Neumeister, 2004a), motivation (Speirs Neumeister, 2004b), and responses to challenges associated with studying in a demanding school (Speirs Neumeister et al., 2007). All were conducted in America with 'gifted' students, and all at university except for Speirs Neumeister et al. (2007), which focused on secondary school. Thus, research into the experiences of secondary students in the United Kingdom (UK) is required.

# 2.1.6 The Present Study

The literature reviewed has highlighted that perfectionism and well-being is an understudied area with many research gaps. One omission is that very few studies have used measures incorporating hedonic and eudaimonic elements to explore high well-being (flourishing). Also, no known studies have used Keyes's (2002) conceptualisation of flourishing nor explored perfectionism and flourishing in secondary school students. This study's overarching aim was to examine perfectionism, well-being and flourishing in U.K. secondary students.

Currently, the processes underlying relationships between perfectionism and well-being seem inadequately understood. This study aimed to remedy this by using qualitative methodology to explore the quantitative results in more detail. The decision was made to focus on the experiences of flourishing APs for several reasons. Firstly, no known studies have focused on adaptive perfectionism, which requires deep understanding to remove current ambiguity (Hewitt et al., 2017). Secondly, a focus on APs would be in line with a

## Chapter 2

positive psychology perspective that seeks to develop traits to enable individuals to flourish. Thirdly, research suggests that MPs may be reluctant to renounce their perfectionism due to perceived benefits (Egan, Piek, Dyck, Rees, & Hagger, 2013). Aiming to become an AP may be more attractive than becoming a non-perfectionist (Morris & Lomax, 2014). Finally, insights gained from studying flourishing APs may support perfectionists who have lower well-being.

# 2.1.7 Research Questions and Hypotheses

This study sought to address the following research questions:

- 1. Does mental well-being and its components (PWB, EWB and SWB) differ across adaptive, maladaptive and non-perfectionists? It was hypothesised that APs would have highest levels of total well-being (TWB), PWB, EWB and SWB, followed by non-perfectionists and then MPs.
- 2. Are there differences in the distribution of APs, MPs and non-perfectionists across different mental health categories? It was hypothesised that the proportion of APs falling into the 'flourishing' category would be the highest of all perfectionism groups, followed by non-perfectionists and then MPs. As a result, more MPs and non-perfectionists were expected to fall into the 'moderately mentally healthy' and 'languishing' categories than APs.
- 3. What helps secondary school students classed as flourishing APs to experience high well-being in the face of school challenges?

# 2.2 Method

#### **2.2.1 Design**

A mixed methods design was used, defined as "an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks" (Creswell, 2014, p. 4). This approach was chosen as it was felt that it would lead to a more comprehensive understanding of the research questions. An explanatory sequential mixed methods design was employed, where the researcher conducted a quantitative phase before a qualitative phase to help explain specific quantitative results (Creswell & Plano Clark, 2018).

Analysis of the quantitative data enabled the researcher to purposefully select participants for the qualitative phase. A visual representation of the study's design is shown in Figure 2.

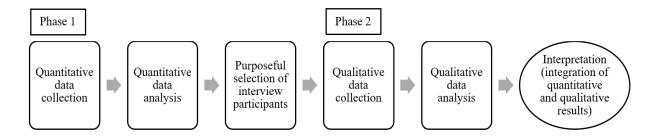


Figure 2. Visual representation of the study's explanatory sequential mixed methods design.

The quantitative phase used a cross-sectional design. Kruskal-Wallis tests were used to address the first research question. The independent variable was perfectionism subtype and the dependent variables (DVs) were TWB, EWB, SWB and PWB. A chi-square test was employed to investigate the second research question, with categorical variables of perfectionism group and mental health status.

The qualitative phase used semi-structured interviews to gain a deeper understanding of the quantitative results and the experiences of participants classed as flourishing APs in the quantitative analysis. This phase addressed the third research question.

## 2.2.2 Philosophical Position

The philosophical paradigm of critical realism (CR) provided the foundation for this research. Maxwell (2012, p. 5) wrote that critical realists "retain an ontological realism (there is a real world that exists independently of our perceptions, theories, and constructions) while accepting a form of epistemological constructivism and relativism (our understanding of this world is inevitably a construction from our own perspectives and standpoint)". CR has been proposed as a promising stance for mixed methods research due to its compatibility with quantitative and qualitative approaches and its potential to promote dialogue and collaboration between them to gain a deeper understanding of research phenomena (Maxwell & Mittapalli, 2010). McEvoy and Richards (2006) also highlighted that in CR, the aim is to establish greater understanding and explanations of causal mechanisms that create phenomena. This philosophical position is in line with this research, which ultimately sought to develop better understanding of the processes underlying relationships between perfectionism and well-being.

#### 2.2.3 Recruitment

Participants were recruited from two secondary schools from two local authorities in the South of England. The researcher recruited one school to which she was linked in a Trainee Educational Psychologist role. She also asked Educational Psychologist (EP) colleagues to provide study information to other secondary schools that might be interested in participating. This led to the recruitment of another school. Head teachers were provided with study information and opportunity to ask questions before their consent was sought (see Appendix D).

The schools differed considerably in their characteristics. School 1 was a smaller than average free school with around 600 students. All students participated in a dedicated hour of enrichment activities as part of the school day. The percentage of students eligible for free school meals was below the average for English mainstream secondary schools. The percentage of students receiving special educational needs (SEN) support was roughly average. Student attainment was above average and absenteeism was below average.

School 2 was an average sized community school with approximately 900 students. Percentages of students eligible to receive free school meals and receiving SEN support were above average. Student attainment was below average and absenteeism was above average.

In both schools, most pupils were White British and the percentages of pupils with English as an additional language were lower than average.

# 2.2.4 Questionnaire Participants

Information letters and opt-out consent forms (Appendix E) were sent to parents or carers of Year 9 and 10 students in school 1 and those of Year 9 in the other (as the timing for data collection was impractical for their Year 10 cohort). Students were not invited to the data collection session if absent when forms were distributed or collected. Some others chose not to participate. For school 1, the overall participation rate was 74% with 180 students participating. For school 2, the participation rate was 48% with 80 students participating.

One student was excluded after indicating on the questionnaire that responses had been untruthful. Three participants were removed from the final analyses as more than 20% of item responses were missing on a scale. This left 260 in the final sample. Participants' demographic characteristics are displayed in Table 3.

Table 3. Questionnaire Participants' Demographic Characteristics

Demographic characteristics	n (%)	M (SD)
Age <sup>a</sup>		14.19 (0.58)
13	23 (8.9)	
14	164 (63.3)	
15	72 (27.8)	
Year group		
Year 9	180 (69.2)	
Year 10	80 (30.8)	
Sex		
Male	111 (42.7)	
Female	144 (55.4)	
Other	5 (1.9)	
Ethnicity		
White		
Welsh, English, Scottish, Northern Irish or British	235 (90.38)	
Irish	2 (.77)	
Any other White background	8 (3.08)	
Mixed/Multiple ethnic groups		
White and Black Caribbean	3 (1.15)	
White and Black African	3 (1.15)	
White and Asian	1 (.38)	
Any other Mixed or Multiple ethnic background	1 (.38)	
Asian/Asian British		
Indian	1 (.38)	
Bangladeshi	1 (.38)	
Chinese	2 (.77)	
Do not state	3 (1.15)	

<sup>&</sup>lt;sup>a</sup> One participant did not provide their age.

# 2.2.5 Interview Participants

Participants were invited to interview if they met the criteria for adaptive perfectionism and flourishing on the measures described in the section below and they indicated their interest in participation in the quantitative phase. Of 37 participants meeting criteria for adaptive perfectionism and flourishing, 22 expressed interest. Information letters and opt-in consent forms (Appendix F) were sent to their parents or carers. Of the 12 students who returned forms, 11 assented to participate and completed an interview. Their characteristics are displayed in Table 4.

Table 4. Interview Participants' Demographic Characteristics

Pseudonym	School number	Age at interview	Year group at interview	Sex	Ethnicity
Max	1	16	11	Male	White (Welsh, English, Scottish, Northern Irish or British)
Lilly	1	15	11	Female	White (Welsh, English, Scottish, Northern Irish or British)
Sophia	1	15	11	Female	White (Welsh, English, Scottish, Northern Irish or British)
Theo	1	16	11	Male	White (Welsh, English, Scottish, Northern Irish or British)
Henry	1	15	11	Male	White (Welsh, English, Scottish, Northern Irish or British)
Edward	1	15	11	Male	White (Welsh, English, Scottish, Northern Irish or British)
Aaron	1	15	11	Male	White (Irish)
Mia	1	15	11	Female	White and Asian
Bobby	2	14	10	Male	White (Welsh, English, Scottish, Northern Irish or British)
Caleb	2	14	10	Male	White (Welsh, English, Scottish, Northern Irish or British)
Jamie	2	14	10	Male	White (Welsh, English, Scottish, Northern Irish or British)

#### 2.2.6 Measures

#### Perfectionism.

The Almost Perfect Scale-Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1996; Slaney, Rice, Mobley, Trippi, & Ashby, 2001; Appendix G) was used to measure adaptive and maladaptive elements of perfectionism in participants. This scale was developed to measure variables deemed to define perfectionism, rather those reflecting the causes, correlates and consequences of perfectionism (Slaney et al., 2001). It was selected for use in this study for several reasons. Firstly, a systematic literature review of perfectionism measures for children aged 15 and below (Leone & Wade, 2018) recommended this scale for studies interested in both adaptive and maladaptive perfectionism, as was the case in this study. Secondly, assessment of the scale's readability found it suitable for students aged 9 and over (Gilman & Ashby, 2003). However, it was primarily selected as, in order to further investigate adaptive perfectionism in the study's qualitative phase, it was deemed necessary to have a way of identifying participants displaying traits of a more adaptive form of perfectionism. The measure provided a straightforward way of classifying participants.

The APS-R has three subscales. The High Standards subscale, consisting of seven items, assesses high personal standards and expectations for performance (adaptive perfectionism). The Discrepancy subscale (12 items) measures the perception of continually failing to achieve personal standards (maladaptive perfectionism). Consistent with previous studies (e.g., Gilman & Ashby, 2003), the Order subscale was not used, as Stoeber and Otto's (2006) review concluded that it was not a central dimension of perfectionism. Participants rated their agreement with items on a Likert scale, where 1 = strongly disagree and 7 = strongly agree.

The included subscales have been found to have good internal consistency in previous studies with adolescents, with Cronbach's alpha values ranging from .82 to .87 for the High Standards subscale and from .87 to .92 for the Discrepancy subscale (Accordino et al., 2000; Gilman & Ashby, 2003). In the current study, the High Standards subscale had good internal consistency ( $\alpha = .84$ ) and the Discrepancy subscale had excellent internal consistency ( $\alpha = .92$ ).

The cut-off scores determined by Rice, Ashby, and Gilman (2011), using an American adolescent sample (mean age = 14.60 years), were used to classify students as APs, MPs or non-perfectionists (as cut-off scores have not yet been developed using a U.K. sample). Participants scoring 35 or higher on the High Standards subscale were classified as perfectionists while those scoring below 35 were classified as non-perfectionists. Perfectionists scoring below 44 on the Discrepancy subscale were further classified as APs; those scoring 44 or higher were classified as maladaptive.

# Well-being and flourishing.

The Mental Health Continuum-Short Form (MHC-SF; Keyes, 2005; Appendix H) was selected to measure well-being and flourishing as it was the only flourishing measure found which had been examined for its psychometric properties with U.K. adolescents. This self-report questionnaire contains 14 positively worded items, measuring the three aspects of well-being suggested by Keyes (2002). Three items measure EWB, five measure SWB and six measure PWB. Participants rate how frequently they have experienced different well-being indicators in the last month on a 6-point Likert scale from 'never' to 'every day'. Respondents are categorised as 'flourishing' if they have experienced at least one of the emotional (hedonic) well-being indicators and at least six of the social and psychological (eudaimonic) well-being indicators most or all days. Conversely, they are categorised as 'languishing' if they have experienced at least one of the hedonic well-being indicators and at least six of the eudaimonic well-being indicators never, once or twice. All others are categorised as 'moderately mentally healthy'. Overall scores range from 0–70, with higher scores implying greater flourishing.

In the current study, the overall measure was found to have excellent internal consistency ( $\alpha$  = .93) and the Emotional ( $\alpha$  = .84), Social ( $\alpha$  = .83) and Psychological ( $\alpha$  = .85) subscales all had good internal consistency. These Cronbach's alpha values were very similar to those of Bower's (2015) study examining the psychometric properties of the MHC-SF (Keyes, 2005) in U.K. adolescents aged 13–16.

#### Academic achievement.

Data on students' academic achievement was gathered from schools. However, no analysis was conducted on this due to time limitations and its indirect relationship to the research questions.

## Qualitative interview.

A semi-structured interview format was chosen for the qualitative phase, giving freedom to respond to participant needs by rephrasing or reordering questions and posing supplementary ones. A final interview schedule (Appendix I) was developed with feedback on previous drafts from supervisors. Questions were created to address the final research question. Care was taken to ensure that these were non-leading, clear and open-ended. To minimise power imbalances, participants were given picture cards (see Appendix J) to touch if they wished to skip a question, pause or conclude. A further card served as a reminder that there were no right or wrong answers.

A pilot interview was conducted with one participant meeting the interview criteria to assess question clarity. As no questions were subsequently changed, this interview was included in the analysis.

## 2.2.7 Ethical Considerations

Ethical approval for the study was granted by the University of Southampton's Psychology Ethics Committee and the Research Integrity and Governance Team (Appendix K).

The researcher was mindful of a small risk that certain questionnaire items and interview questions might raise uncomfortable emotions in some participants. To minimise risk, prior to seeking their assent to participate, students were informed that they could withdraw at any point during questionnaire completion or interviews and up to 5 working days afterwards by emailing the researcher. Debriefing information (Appendices L and M) signposted students to sources of support that they could access if they experienced any distress. The researcher was also aware of her responsibility to exercise a duty of care. Therefore, she informed participants that if their questionnaire and/or interview responses indicated any well-being or safeguarding concerns, this information would be shared with an appropriate school staff member.

After careful consideration, a decision was made to use opt-out consent for the quantitative phase, as the risk of participants experiencing distress was considered low, with many supportive measures provided. School participation consent provided by head teachers included permission to use opt-out forms. The researcher liaised with school staff to ensure

that participants absent at distribution of opt-out forms and those who returned them were excluded from data collection sessions.

School staff members allocated unique personal codes to participants to minimise risk of identification. The lists of names and codes were securely stored in schools. The researcher used codes in communication with schools when reporting well-being concerns, identifying interview attendees and distributing Amazon vouchers provided in exchange for participation. The achievement data provided by schools also used codes.

#### 2.2.8 Procedure

# Questionnaires.

Qualifying students were invited to a 45-minute group data collection session during normal school hours. Schools could request questionnaire completion on paper (see Appendix N) or online via i-Survey, the university's program for disseminating online questionnaires. One school chose online questionnaires, with students using laptops in classrooms in groups of around 20. In the other school, students completed the paper version in their year group in the school auditorium.

The researcher initially read through the participant information sheet and assent form (Appendix O). After the opportunity to ask questions, students were requested to provide written assent if they agreed to participate. Students completing the questionnaires online were given instructions on how to do this and were asked to provide demographic information (age, year group, sex and ethnicity). They then completed the MHC-SF followed by the APS-R, and finally indicated if they would like to enter a draw to win one of five £20 Amazon vouchers and/or participate in an interview. Time taken for completion of the online questions ranged between 4.5 and 27.3 minutes. The researcher and at least one school staff member were present during data collection sessions to answer questions and provide support with reading and/or understanding questions. Following questionnaire completion, participants were given debriefing information.

#### Interviews.

Participants who met interview criteria and whose parents had provided consent were invited to attend an individual face-to-face interview session with the researcher. After introductions and brief informal conversation to develop rapport, the researcher read through

the participant information sheet and assent form (Appendix P), explaining selection and confidentiality issues, and indicating how to skip questions or withdraw from the study. Participants had the opportunity to ask questions before signing the assent form if happy to proceed.

Interviews were held in a quiet room in the participant's school and lasted 9 to 30 minutes. A digital recorder was used to record interviews. Afterwards, the researcher read through the debriefing form with the participant and provided opportunity to ask questions. All participants received £20 Amazon vouchers in exchange for participation.

### 2.3 Findings

#### 2.3.1 Quantitative Data

#### Data preparation.

Screening of data from the final 260 participants revealed that 0.19% of the total values across the two questionnaires were missing, deemed at random. Person-mean imputation was used to replace these with participants' mean scores computed from non-missing items on the relevant subscale.

#### Preliminary analyses.

Checks were conducted to investigate whether TWB, EWB, SWB and PWB scores were normally distributed within the different perfectionism groups. Histograms and Kolmogorov-Smirnov tests indicated that, while TWB scores for all perfectionism groups and SWB scores for MPs were normally distributed, all other scores were non-normally distributed and mostly negatively skewed (see Appendix Q for histograms).

The extent to which the data met the assumption of homogeneity of variance was also examined. Significant Levene's test results (p < .05) and boxplots indicated that for TWB, EWB and PWB scores, the variances for different perfectionism groups were significantly different, suggesting that the assumption was violated. This assumption appeared to be met for the SWB scores.

#### Chapter 2

Overall, there was sufficient evidence to suggest that the data did not meet parametric assumptions. Therefore, the decision was made to conduct non-parametric tests for the main analyses.

A  $2 \times 2 \times 3$  factorial analysis of variance (ANOVA) was conducted to examine main and interaction effects of sex, school membership and perfectionism group on TWB scores to determine whether separate analyses for school and sex were required. Based on the results, it was decided that these were unnecessary (see Appendix R for more detail).

#### **Descriptive statistics.**

Across the sample, 45 participants (17.3%) were identified as APs, 112 (43.1%) as MPs and 103 (39.6%) as non-perfectionists. The means and standard deviations of study DVs (discrepancy, high standards, TWB, EWB, SWB and PWB) across the different perfectionism groups are shown in Table 5. It can be seen that for each of the well-being variables, APs had highest well-being, followed by MPs and then non-perfectionists. Further statistical analyses were conducted to determine whether differences between groups were statistically significant enough to be unlikely to be due to chance. Bivariate Pearson's correlations between variables are presented in Table 6.

Table 5. Means and Standard Deviations of Dependent Variables by Perfectionism Group

	A	P	MP		N	NP		Total	
	(n =	45)	(n =	112)	(n =	(n = 103)		= 260)	
Variable	M	SD	M	SD	M	SD	M	SD	
High Standards	40.73	4.29	41.14	4.01	27.68	4.96	35.74	7.90	
Discrepancy	34.44	6.90	59.96	10.77	48.50	12.69	51.00	14.35	
TWB	55.11	9.06	42.96	13.21	37.46	14.94	42.89	14.64	
EWB	12.49	2.16	10.40	2.88	9.49	3.38	10.40	3.15	
SWB	17.80	4.85	13.27	5.51	11.63	5.96	13.40	5.97	
PWB	24.82	3.59	19.29	6.02	16.34	6.95	19.08	6.74	

*Note.* AP = adaptive perfectionists; MP = maladaptive perfectionists; NP = non-perfectionists; TWB = total well-being; EWB = emotional well-being; SWB = social well-being; PWB = psychological well-being.

Table 6. Bivariate Pearson's Correlations Between Dependent Variables

	Variable	1	2	3	4	5	6
1.	High Standards						
2.	Discrepancy	.20*					
		[.07, .33]	_				
3.	TWB	.37**	46**				
4	EW/D	[.26, .47]	[55,34]				
4.	EWB	.33**	36**	.87**			
5	CWD	[.20, .44]	[48,23]	[.83, .89]	_		
5.	SWB	.30**	41**	.93**	.75**		
6	DW/D	[.18, .40]	[52,29]	[.91, .94]	[.69, .79]		
6. PWB	PWB	.40**	46**	.94**	.75**	.79**	
		[.29, .49]	[55,36]	[.93, .96]	[.70, .80]	[.74, .83]	

*Note.* TWB = total well-being; EWB = emotional well-being; SWB = social well-being; PWB = psychological well-being. Bias-corrected and accelerated 95% bootstrap confidence intervals are reported in brackets as high standards, TWB, EWB and PWB were not normally distributed.

\*p < .01. \*\*p < .001.

# Research question 1: Does mental well-being and its components differ across adaptive, maladaptive and non-perfectionists?

Kruskal-Wallis tests were used to determine whether TWB, EWB, SWB and PWB scores were significantly different across the perfectionism groups. These revealed significant differences for all well-being DVs. The results, along with mean ranks and median and interquartile values for each group on each variable, are presented in Table 7.

Post-hoc tests using Mann-Whitney U tests with Bonferroni corrections revealed that APs had significantly higher TWB, EWB, SWB and PWB scores than MPs and non-perfectionists. MPs also had significantly higher TWB and PWB scores than non-perfectionists. There were no differences between the EWB and SWB scores of MPs and non-perfectionists (see Table 7 for results of pairwise comparisons with adjusted *p*-values).

Table 7. Results of Kruskal-Wallis Tests and Pairwise Comparisons Assessing Differences in Well-being Across Perfectionism Groups

Variable	Mean	Mdn	IQR	Pairwise	df	Н	p	z	r
	rank			comparison					
TWB					2	47.58	<.001		
AP	195.56	55.00	51-63	MP			<.001	4.961	0.396
MP	129.73	45.00	32-54	NP			.027	2.612	0.178
NP	102.92	39.00	25–48	AP			<.001	6.896	0.567
EWB					2	33.35	<.001		
AP	186.14	13.00	12–14	MP			<.001	4.437	0.354
MP	127.60	11.00	9–13	NP			.221	1.789	0.122
NP	109.34	10.00	7–12	AP			<.001	5.749	0.473
SWB					2	33.04	<.001		
AP	185.91	18.00	15–22	MP			<.001	4.370	0.349
MP	127.99	13.00	9–18	NP			.193	1.849	0.126
NP	109.02	13.00	6–16	AP			<.001	5.729	0.471
PWB					2	55.51	<.001		
AP	199.63	26.00	23–27	MP			<.001	5.173	0.413
MP	131.07	21.00	15–24	NP			.007	3.063	0.209
NP	99.67	17.00	11–22	AP			<.001	7.449	0.612

*Note.* IQR = interquartile range; TWB = total well-being; EWB = emotional well-being; SWB = social well-being; PWB = psychological well-being; AP = adaptive perfectionists; MP = maladaptive perfectionists; NP = non-perfectionists.

# Research question 2: Are there differences in the distribution of adaptive, maladaptive and non-perfectionists across different mental health categories?

A chi-square test of independence was conducted to examine whether there were differences in the proportions of adaptive, maladaptive and non-perfectionists falling into the mental health categories of languishing, moderately mentally healthy and flourishing. This revealed that adaptive, maladaptive and non-perfectionists were not equally distributed across

Chapter 2

mental health status categories,  $\chi^2(4, N=260)=45.00$ , p<.001, V=.29. See Table 8 for the contingency table showing the numbers falling into different combinations of categories.

Standardized residuals indicated that significantly more APs fell into the flourishing category than would be expected if they were equally distributed across groups (the null hypothesis). Significantly fewer APs fell into the moderately mentally healthy and languishing categories than expected. While 82% of APs were flourishing, 18% were moderately mentally healthy and 0% were languishing.

Significantly fewer non-perfectionists fell into the flourishing category and significantly more fell into the languishing category than expected. The number falling into the moderately mentally healthy category did not significantly differ from expectations. While 25% of non-perfectionists were flourishing, 60% were moderately mentally healthy and 15% were languishing.

The numbers of MPs falling into the different mental health categories were approximately equal to expectations with 41%, 53% and 6% falling into the flourishing, moderately mentally healthy and languishing categories respectively.

Chapter 2

Table 8. Contingency Table: Perfectionism Group by Mental Health Status

			Mental health status	3	
			Moderately		
		Languishing	mentally healthy	Flourishing	Total
Perfectionism group				_	
AP	Count	$0_{\rm a}$	$8_{\rm a}$	$37_{b}$	45
	Expected count	3.8	22.3	18.9	45.0
	% within perfectionism group	0.0%	17.8%	82.2%	100.0%
	% within mental health status	0.0%	6.2%	33.9%	17.3%
	% of total	0.0%	3.1%	14.2%	17.3%
	Standardized residual	-2.0	-3.0	4.2	
MP	Count	$7_{\rm a}$	$59_a$	$46_a$	112
	Expected count	9.5	55.6	47.0	112.0
	% within perfectionism group	6.3%	52.7%	41.1%	100.0%
	% within mental health status	31.8%	45.7%	42.2%	43.1%
	% of total	2.7%	22.7%	17.7%	43.1%
	Standardized residual	8	.5	1	
NP	Count	15 <sub>a</sub>	62 <sub>a</sub>	$26_{b}$	103
	Expected count	8.7	51.1	43.2	103.0
	% within perfectionism group	14.6%	60.2%	25.2%	100.0%
	% within mental health status	68.2%	48.1%	23.9%	39.6%
	% of total	5.8%	23.8%	10.0%	39.6%
	Standardized residual	2.1	1.5	-2.6	
Total	Count	22	129	109	260
	Expected count	22.0	129.0	109.0	260.0
	% within perfectionism group	8.5%	49.6%	41.9%	100.0%
	% within mental health status	100.0%	100.0%	100.0%	100.0%
	% of total	8.5%	49.6%	41.9%	100.0%

*Note.* For each perfectionism group, columns with different subscripts indicate that proportions within the column variable 'mental health status' are significantly different at the .05 level. AP = adaptive perfectionists; MP = maladaptive perfectionists; NP = non-perfectionists.

#### 2.3.2 Approach to Qualitative Data Analysis

The qualitative data was analysed using reflexive thematic analysis (TA; Braun, Clarke, Hayfield, & Terry, 2018) following the six phases outlined by Braun and Clarke (2006). Table 9 presents a summary of the researcher's actions for all phases which were followed recursively, rather than in a strictly linear manner, as recommended by Braun and Clarke (2006). The data was initially coded inductively, at a semantic level, meaning that codes closely reflected what participants said rather than any deeper meaning behind comments. This enabled the researcher to honour participants' voices, with 'in vivo' codes sometimes used to capture exactly what was said. However, when codes were grouped into themes, a more deductive and latent approach was used in an attempt to interpret the meaning behind codes, a process influenced by knowledge of existing theory and research. A discussion of researcher reflexivity can be found in Appendix S.

Table 9. Description of How the Researcher Followed Braun and Clarke's (2006) Phases of Thematic Analysis

Phase	Action taken by researcher
1. Familiarising yourself	Interview data was transcribed by a transcription service.
with the data	The researcher listened to the audio recordings several
	times to check transcripts for accuracy and make note of
	any interesting features of verbal communication (e.g.,
	emphasis and tone). The transcripts were re-read and
	notes were made of initial ideas about the data.
2. Generating initial	The researcher first noted initial codes by hand on the
codes	transcripts before later using NVivo 12 to code the data.
	This enabled reflection and revision of initial codes. The
	researcher decided whether each data extract could be
	coded using an existing code or whether a new one needed
	to be created. Data extracts were sometimes coded under
	multiple codes. Codes were occasionally rephrased,
	merged or divided into more codes. See Appendix T for
	sample coded interview extract.

### Chapter 2

3. Searching for themes	Each code was printed onto a separate slip of paper and the researcher manually sorted them into theme-piles representing potential themes (see Appendix U).
4. Reviewing themes	The researcher checked whether potential themes were valid by reading coded extracts for each theme as well as transcripts. Some themes were merged, removed or split into smaller themes. New thematic maps were created to reflect changes (see Appendix V).
5. Defining and naming themes	Names of themes were refined and a description of each theme was created using data extracts which were felt to best reflect each theme.
6. Producing the report	The researcher told the story of the data by analysing the themes and illustrative extracts in relation to the research question and existing literature (see results and discussion sections).

### 2.3.3 Qualitative Data

Through thematic analysis of the qualitative data, four overarching themes were generated: 'social support', 'life outside of school', 'reactions to imperfection' and 'coping with challenges'. Within these, 13 themes were identified (see thematic map, Figure 3).

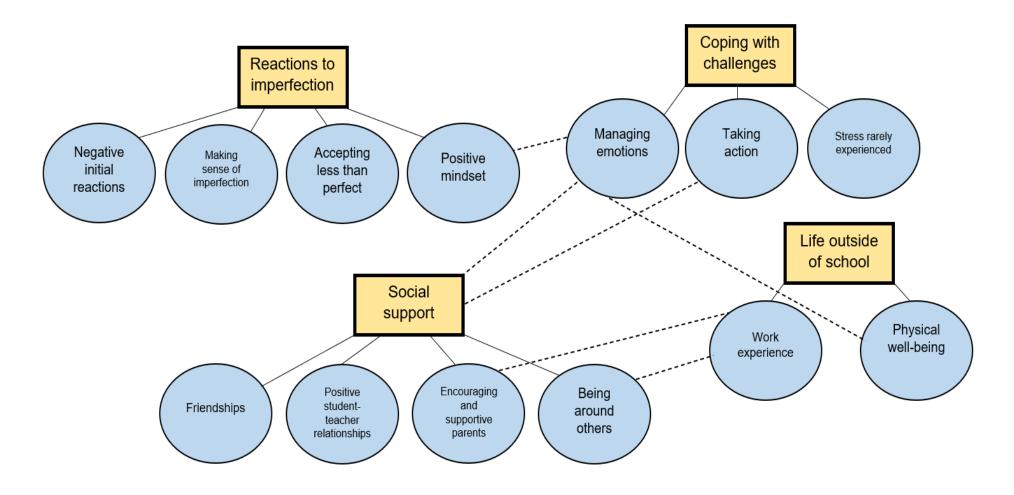


Figure 3. Thematic map.

Overarching themes are shown in yellow and themes in blue. Dashed lines indicate links between themes.

#### Social support.

Social support was the largest overarching theme, with all students referencing how other people supported their well-being and/or helped them to manage challenges. It includes the themes 'friendships', 'positive student-teacher relationships', 'encouraging and supportive parents' and 'being around others'.

#### Friendships.

Many students suggested that friendship was important in supporting their wellbeing. They especially seemed to value opportunities to talk to friends, even if conversations were not particularly deep:

Interviewer: And then with your friends as well, like erm how does talking to them help you think?

Mia: Erm well it's just mostly light-hearted and erm, and we can talk about, you know, we can talk about lots of different things. So it doesn't have to be particularly serious and it also doesn't have to be particularly light-hearted. It can... erm you know, and we can relate to each other. Erm yeah.

Having an awareness that friends are there if needed may provide students with a sense of security ("Erm knowing that I've got friends in school and about makes me feel good cos I know if I ever erm need anything they will be there." – Bobby).

Some students spoke about how having friends who liked them and enjoyed their company increased their self-confidence ("...just being able to talk to someone and say 'Oh, someone enjoys my company', it's obviously good for self-esteem and things." – Edward).

#### Positive student-teacher relationships.

Students spoke very positively about teacher support. Some felt comfortable talking to teachers on a personal level about any troubling issues, possibly due to the positive relationships they enjoyed:

Jamie: It's the relationships between me and my teachers because I know I can always talk to them about something. Whether something has gone wrong outside of school or something, I always have them people, like those teachers that I can turn to and talk about.

Two students from one school described how they viewed teachers more as "friends" (Henry and Edward) and "nice people" (Henry) with whom they could have a normal conversation. It should be noted, however, that when some students were prompted further, their responses suggested that they would not feel comfortable approaching every teacher ("I'd go to like my teachers that I feel comfortable with." – Jamie).

Participants described how teachers had helped them to overcome academic challenges by providing additional educational support and advice. Students in one school valued the opportunity to attend extra after-school classes. Some suggested that teachers often made special effort to provide personal support and feedback (e.g., by marking extra work). One student described accommodations that teachers made following a return to school after illness ("they put stuff in place so that I could like leave a lesson and walk around if I needed to and stuff like that." – Lilly).

#### Encouraging and supportive parents.

Many students described how they had benefitted from parental encouragement and support, particularly regarding their education. Several commented that their parents wanted them to succeed. For some, this was because parents wished them to make better choices and achieve more than they had themselves. Whilst parents aspired to this success, students did not consider them overly pushy or strict, but caring of their well-being:

Sophia: Cause like they would just want me to like do well but like not be... put loads and loads of pressure on myself. Like when we are doing revision for our end of year mocks, erm set up like a revision schedule and Mum was very adamant that I had like spaces where I wasn't. I was just doing something completely unrelated.

A few students described how parents supported them to improve grades by helping to clarify their goals or identify areas for improvement. Some also highlighted that parents were always available to support them with issues:

Lilly: They are like, they will come to like parents' evening and stuff like that and they will like talk to me about like my grades. Like you know, 'where do you want to be?' and stuff like that. And they are not too like pushy either, you know what I mean?

Interviewer: Yeah, they are not too pressurising.

Chapter 2

Lilly: They are not too like harsh and they don't make me stressed. Like I can talk

to them if I need to sort of thing. So that's alright.

Some participants expressed appreciation for practical parental support in their

education such assisting with schoolwork, paying for tutoring, and transport ("they like

take me to open days of like sixth forms. And erm like pay for my Maths tutor and like

help me if I need help like with school." – Lilly).

Being around others.

Some students mentioned that being around other people supported their well-

being, seeming to provide them with opportunities to talk to others and gain any necessary

help:

Interviewer: Yeah. And how does being around other people help you?

Theo: It just relaxes me a lot.

Interviewer: Yeah.

Theo: I'm a social person I think.

Interviewer: Mm yeah. So being around people. What kind of helps you to relax

about being with other people? Is it erm... like what do you do with other people

to help you to, to relax?

Theo: It's just talking.

Potentially, being around others provides students with a sense that they are part of

something bigger than themselves and/or a sense of belonging. Edward alluded to this

when asked to elaborate on why he felt there was a "close community" in school:

Interviewer: Mm. And why is that erm a good thing do you think? That people

like its people know each other?

Edward: Erm probably if you were feeling like you needed to get help, you could

just talk to anyone.

Interviewer: Yeah.

Edward: And it helps to feel like you are actually part of something. So yeah, like

you are with people.

61

#### Life outside of school.

This overarching theme relates to how engagement in extracurricular activities appeared to support students' well-being in school and includes the themes 'work experience' and 'physical well-being'.

#### Work experience.

Five students mentioned that they had current jobs or previous work experience. Most explicitly spoke about how jobs had provided opportunities to develop skills and connect with others outside of school. For example, two students described how a job had helped them to go out and develop social skills:

Interviewer: ...And how has having a job helped you, do you think, to help your well-being?

Sophia: Well, cause then I'm like out of the house and talking to people all the time.

Interviewer: Hmm Yeah.

Sophia: And like I'm meeting new people and stuff and just interacting with them, and then like seeing different people who like... the people who work there, they are all older than me. So it also like builds... build up like my talking skills to older people as well.

This theme links to the 'being around others' theme due to the opportunities for social interaction provided by employment. Links can also be made with the theme 'encouraging and supportive parents' as two students described how parents had helped them to gain work experience or employment ("Well my mother has got me like... she's managed to get me to get two jobs at once and that was really helpful to me." – Theo).

Despite work experience seen as a positive factor towards well-being, one student commented on it causing them additional pressures ("The only time that I've really like noticeably experienced stress was working during the summer, because it gets very busy and then there's people asking me like stupid questions." – Aaron).

#### Physical well-being.

Many participants described how engagement in sport outside of school supported well-being and relieved stress:

Lilly: It's like varying stuff. Like I say, like I do a lot of different things. I think that really helps because if you're like constantly just working on like Maths or English and stuff, you can get quite overwhelmed by it and it becomes too much. So like balancing like sport and like other hobbies and things like that around like your social life and school. I think that's probably like the main thing.

Interviewer: Yeah.

Lilly: So like getting a balance of everything um so that you're doing, you know, you're not stressed too much

Interviewer: Yeah, just working.

Lilly: at school just working. So that's what I generally do.

Interestingly, no students explicitly mentioned any benefits associated with engaging with sport in school, suggesting the importance of outside leisure pursuits. Perhaps this separation provides an increased sense of balance and opportunities to disconnect from education.

Some students also spoke about the importance of sleep for their mental well-being, highlighting how lack of sleep can negatively affect this:

Aaron: Erm I mean getting a good night's sleep does help.

Interviewer: Mm.

Aaron: Erm I've come to school with like, I think it was four hours of sleep was the worst one and I just, I've come close to punching people.

#### Coping with challenges.

This overarching theme concerns how students managed school challenges, including academic setbacks, difficulties and stress. It incorporates three themes: 'stress rarely experienced', 'taking action' and 'managing emotions'.

#### Stress rarely experienced.

When asked about school stress, almost all students shared that they rarely experienced any. Possible reasons varied, with some referencing their personality ("I mean I don't think I'm a very stressful person to be honest." – Aaron) or ability to manage stress

Chapter 2

effectively ("Erm I control it easily. It don't take over me." – Bobby). Some may not yet have experienced many significantly stressful events, as indicated by one student:

Mia: And I've never really felt stress before so it's, it's just another kind of emotion that erm, you know, I haven't learnt how to deal with yet and I haven't learnt how to erm express it and then how to, you know, not feel that way.

Nevertheless, other students mentioned that homework and exams can cause stress ("The only times I am really stressed is like when I've got loads of homeworks to do." – Caleb).

Taking action.

When faced with stressful or challenging situations, many students detailed how they "get on with" things and take direct action to reduce stressors (i.e., problem-focused coping strategies):

Sophia: Erm... I wouldn't say much else like makes me stressed. Like some people it's like just squeezing those stress cows, like watching a calming video or something but that just doesn't work for me. Like if I get stressed like I just need to do whatever is making me stressed so then like I'm not.

Interviewer: Yeah.

Sophia: I don't get stressed often but if I do, like let's say I am stressing about erm finishing some homework, I just need to finish it and then it's like gone.

Interviewer: Yeah.

Sophia: And then I can just chill out and like do whatever I want to do cause it's out of the way.

When students received disappointing grades, found subjects hard or felt exam pressure, they often responded by working harder. They also used time management and organisational strategies such as making to-do-lists, planning time and focusing on smaller, achievable goals.

This theme also links to the overarching 'social support' theme as some mentioned seeking help from others to overcome stress and challenge.

#### Managing emotions.

While participants often spoke about directly tackling stressors, they also engaged in emotion-focused coping strategies. For example, some students shared that listening to music helped ("Erm well I guess I just erm... I enjoy listening to music where I can feel like the artist erm, you know, has gone through a similar situation." – Mia). Sometimes students ignored stressors ("...if things are annoying me I kind of just put it aside and just don't really worry about it." – Caleb).

This theme can be linked with those of 'social support', 'physical well-being' and 'positive mindset' as some students detailed how venting to others, exercising and engaging in positive reframing relieved stress.

Interestingly, some male students disclosed that they sometimes do not show or express feelings, which could serve as an emotion regulation strategy even though repression and denial may be regarded by some as a less adaptive way to cope:

Interviewer: Mm yeah. I know it's hard to kind of tell because some people don't show it, do they, when they are stressed it's?

Henry: Yeah, I think I probably do hide it a bit. Yeah.

Interviewer: Yeah. Erm yeah, and when you say you hide it, like why do you think that is? Or can you say anything more about that?

Henry: Erm... I don't know, it's just who I am really. I don't, I try not to show it too much.

Interviewer: Mm yeah. And do you think that's like, do you find that works for you or not work?

Henry: Er most of the time, yeah. Sort of I know that I need to do something but sometimes I might, you know, tell someone and just explain something that I need to do.

#### Reactions to imperfection.

All participants could describe times of disappointing achievement in school and/or subject difficulties. This overarching theme contains four themes: 'negative initial reactions', 'making sense of imperfection', 'accepting less than perfect' and 'positive mindset'.

#### Negative initial reactions.

When asked to recall a time of self-assessed under achievement in school, many students spoke of receiving grades with which they were dissatisfied. Most reported feeling initially upset or slightly disappointed ("Yeah. I think yeah, disappointed mainly... Just because I'm like I knew I could do better, but I just wasn't... but that, yeah, it changed." – Max). Several admitted being hard on themselves when not meeting their standards ("Just felt like... like annoyed with myself cos I knew I could have done a lot better if I revised and actually was motivated." – Caleb).

However, students seemed to experience only brief disappointment and could move on quickly. One student mentioned forgetting the grade once the lesson had finished; another reported taking a few days to a week to overcome disappointment. While students clearly experienced some negative affect following disappointing grades, they did not appear extremely distressed ("Erm I'd say I have fairly high standards but then I'm not so distraught if I don't meet those standards." – Edward).

#### Making sense of imperfection.

Although the researcher planned to ask students why they felt they had not achieved a standard and/or had found something difficult, many provided spontaneous explanations. More made internal attributions than external. The internal attribution commonly involved lack of effort (study), and more occasionally a lack of focus ("When I sat my mock exams last year, I didn't do as well as I wanted to cos I didn't really revise and I wasn't bothered." – Caleb). External attributions included being unlucky with test content, test difficulty, poor primary school teaching and loss of learning opportunities.

However, in discussion of challenging subjects, a few participants suggested lack of natural ability:

Aaron:...getting good marks in English tests was quite challenging for me cause it... it didn't really make sense to me cause, I don't know, I think it's... someone described it as like you either have like a Maths brain or an English brain.

#### Accepting less than perfect.

Some described having lower personal standards in their weaker subjects and higher standards in stronger ones:

Henry: Some things more than others, depending on how much I care about them.

Interviewer: Yeah. What... yeah. What things do you think you are more of a perfectionist with?

Henry: Er... well at school, things like Maths and Physics. The subjects that I enjoy more.

Interviewer: Okay.

Henry: I would definitely say I'd try and do well because I know I can.

Interviewer: Yeah.

Henry: Whereas something like English I might cut some slack just cause I know I can't always get the best.

A few participants expressed satisfaction in meeting the required standard for their further education course, even though they liked achieving higher grades:

Sophia: But as long as I get like 5, 6, 7, 8, 9, like I'm happy. Like the higher they are then obviously like 'oh wow, I've done really well'. But like if I do get like a 6, I'm not going to beat myself up for it because a 6 is still a B and for most places to get into sixth form they normally want five 5s.

Overall, this theme suggests that it was unessential for students to consistently meet high standards despite aspirations, and lower standards were acceptable in certain circumstances. Edward illustrated this dichotomy on standards: "I see them as more like a... what's the word, erm... I can't think of the word... Er a place to reach rather than a place that I have to be at.".

#### Positive mindset.

To overcome setbacks and challenges, several participants seemed to adjust their view of a situation, maintaining perspective for a more positive outlook ("Erm my general like tagline would just be 'It could always be worse'. So even if I haven't done particularly well, I think 'Okay, it's not that bad'." – Edward).

Sometimes students adopted balanced thinking by acknowledging successful areas in addition to those requiring improvement:

Sophia: Because I had done other bits of that test well, like the writing bit I got a 6 in.

Chapter 2

Interviewer: Yeah.

Sophia: I think another bit I got either a 5 or a 4 in. So...

Interviewer: Yeah. So just one bit of it.

Sophia: Just that one little bit and that's okay.

Some comments also indicated that sustained confidence in abilities to improve and achieve goals was important to help overcome setbacks ("Erm I think just knowing that I can do better makes me feel a bit better... cause I know next time I have a chance I can prove to myself that I can do better." – Henry).

Students tended to view academic setbacks positively, mentioning how these had benefitted them and increased their motivation to improve ("I think er like Year 7 and 8 I wasn't... I wasn't really that good. But obviously I think it just made me work harder after that to try and get better." – Max). Some also felt that setbacks had helped them to gauge progress and identify areas for improvement ("Yeah it's just, it's good to know where you're at and even if it's bad it's like, you know, then you sort of, you know what you need to do and things like that." – Lilly).

Students possibly enjoyed the challenge of trying to improve performance, as witnessing progress and achieving goals brought satisfaction and positive emotions:

Jamie: Yeah. When I get my exam results, like the G- the mock exam results, I always feel good about myself when I get those higher grades.

Interviewer: Yeah.

Jamie: So if my previous exams were lower than the ones that I got now, I feel better about that cause then I know that I'm getting better and better at like... it's like taking steps so you always want to get past it to the next step.

Max: Er well I think it's... I think it's like it makes me quite happy to, you know, achieve really high and like push my grade up.

Interviewer: Mm.

Max: Er I feel really satisfied after like getting a good grade, yeah.

The overall way students viewed setbacks positively, embraced challenges, believed they could improve and responded by increasing effort suggested a growth mindset (Dweck, 2006).

#### 2.4 Discussion

This study aimed to explore perfectionism, well-being and flourishing in U.K. secondary school students by employing an explanatory sequential mixed methods design. The quantitative results, regarding differences in well-being and flourishing between adaptive, maladaptive and non-perfectionists, will be examined first. A discussion will follow on how the qualitative results can further explain these, using Keyes's (2002) conceptualisation of well-being as a framework. Finally, a conclusion will explore study strengths and limitations, with future research and practice implications.

#### 2.4.1 Quantitative Results

As hypothesised, APs had higher TWB (as well as higher EWB, SWB and PWB) than MPs and non-perfectionists. They were also more likely classed as flourishing and less likely classed as moderately mentally healthy or languishing than would be expected if APs were equally distributed across mental health categories. These combined results indicate links between adaptive perfectionism and flourishing, consistent with previous adult studies (Birch et al., 2019; Stoeber & Corr, 2016; Suh et al., 2017). Thus, some forms of perfectionism may support flourishing rather than undermine it, as Flett and Hewitt (2015) suggested. Nevertheless, the proportion of AP students (17.3%) was lower and the proportion of maladaptive (43.1%) and non-perfectionists (39.6%) was higher than in U.S. research with adolescents using the same perfectionism measure and cut-off scores (e.g., in Fredrick et al., 2017, 50.3% were adaptive, 22.5% maladaptive and 27.2% nonperfectionists). Although this sample may be unrepresentative of the nation, it tentatively suggests that the prevalence of APs could be lower (and maladaptive and nonperfectionists higher) amongst U.K. students. Further research using a range of perfectionism measures is necessary to explore this unique finding and investigate potential causes of any major differences.

The hypothesis that non-perfectionists would have higher well-being than MPs was unsupported. MPs had significantly higher TWB and PWB scores than non-perfectionists while EWB and SWB scores did not differ. Additionally, while more non-perfectionists were languishing and less were flourishing than expected, the distribution of MPs across

these categories did not significantly differ from expectations. Therefore, results suggest that possessing high standards may confer benefits for well-being, even when perfectionists experience a discrepancy between their standards and performance. Also, perfectionism may provide particular advantages for PWB, not wholly unexpected considering that striving to realise one's potential has been argued as fundamental to this well-being aspect (Ryff & Singer, 2008). Although further studies are required to substantiate links between maladaptive perfectionism and well-being, some previous studies with CYP have also reported more positive well-being outcomes for MPs than non-perfectionists. Gilman et al. (2005) found that American students classed as MPs had higher school, living environment and family satisfaction than non-perfectionists, while there were no differences between maladaptive and non-perfectionists for global, self and friends satisfaction. It should be noted when considering the current study's results that no measures of mental health difficulties were used. To develop a more complete understanding of relationships between different forms of perfectionism and mental health, studies should include both measures of well-being and mental health problems.

#### 2.4.2 Integration of the Quantitative and Qualitative Findings

To further explore why APs were flourishing, the qualitative phase focused on them, with the specific aim of identifying how they experience well-being in the face of school challenges. A joint display (Table 10) presents the key quantitative results and a description of how the qualitative findings help to explain them. As this study adopted Keyes's (2002) model (proposing that well-being is composed of EWB, SWB and PWB), qualitative findings will be discussed in the context of the most closely related well-being component.

Table 10. Joint Display Illustrating How the Qualitative Findings Help to Explain the Quantitative Results

Quantitative results	Qualitative themes relating to quantitative results	How the qualitative findings help to explain the quantitative results
APs had significantly higher EWB scores than MPs and non-perfectionists.	Stress rarely experienced Taking action Managing emotions Negative initial reactions Positive mindset Physical well-being Social support (overarching theme)	It was rare for APs to be adversely affected by stress. They used strategies to directly tackle stressors and manage uncomfortable emotions. Healthy exercise and sleep routines helped to improve mood and reduce stress. Disappointment experienced when standards were not reached tended to be short-lived, with APs using cognitive reappraisal to help them to move on.
APs had significantly higher SWB scores than MPs and non- perfectionists.	Social support (overarching theme) Work experience	APs had positive relationships with peers, parents and teachers. They seemed to trust others, feeling comfortable to approach them for help. APs valued social connections, which seemed to promote feelings of acceptance, security and belonging.
APs had significantly higher PWB scores than MPs and non-perfectionists.	Making sense of imperfection Positive mindset Taking action Accepting less than perfect Life outside of school (overarching theme)	APs mostly made internal, unstable and controllable attributions for failures. They viewed challenges positively and responded by increasing their motivation and effort. This behaviour may be reinforced by a sense of satisfaction experienced when goals are achieved. APs were aware of their strengths and weaknesses and could lower their standards in weaker areas. Many were involved in developing themselves in areas beyond academia.

Note. EWB = emotional well-being; SWB = social well-being; PWB = psychological well-being; AP = adaptive perfectionists; MP = maladaptive perfectionists; NP = non-perfectionists.

#### **Emotional well-being.**

Keyes (2002) conceptualised EWB as including life satisfaction, the presence of positive affect and absence of negative affect, in line with Diener's (1984) conceptualisation of subjective well-being. The qualitative finding, that most participants reported rarely becoming stressed, may partially explain why APs experienced higher EWB and flourishing. This is consistent with Ashby, Noble, and Gnilka's (2012) findings that APs among university students had lower perceived stress than maladaptive and non-perfectionists, resulting in reduced depression and increased life satisfaction. The authors argued that MPs might self-inflict stress due to critical self-evaluation, fixating on errors and deriving limited satisfaction (Hewitt & Flett, 2002) whereas APs might experience less stress by gaining satisfaction from expending great effort.

Further research is necessary to explore why APs may not suffer undue stress, as this issue was not explored in depth with participants. However, the qualitative findings support the theory that their coping mechanisms may help them to effectively manage stress and protect from experiencing associated negative psychological outcomes. Participants frequently used techniques classed as 'problem-focused' coping strategies in response to stressors (e.g., studying more), in line with quantitative research demonstrating associations between adaptive perfectionism and problem-focused coping in adolescents (Hill et al., 2010). This type of coping has been found to mediate the negative relationship between adaptive perfectionism and school burnout (Luo, Wang, Zhang, Chen, & Quan, 2016).

Participants also used emotion-focused coping strategies, such as talking to others, exercising, and listening to music, to regulate uncomfortable emotions. While often viewed as maladaptive in research, such strategies encompass a wide range of techniques, some being more effective than others (Baker & Berenbaum, 2007; Carver, Scheier, & Weintraub, 1989). Cameron and Wally (2015) argued that both problem- and emotion-focused coping strategies can be adaptive or maladaptive depending on the scenario and method of implementation. Emotion-focused coping is more likely to be adopted when individuals feel they cannot influence stressors (Folkman & Lazarus, 1980).

One emotion-focused strategy often used by participants was cognitive reappraisal, described as changing the way one thinks about a situation to modify its meaning and emotional impact (Lazarus & Folkman, 1984; Gross & John, 2003). Although APs reported initially feeling disappointed by unattained standards, many adjusted their

thinking to keep matters in perspective. Speirs Neumeister (2004a) also described this response pattern in AP university students.

Finally, many students said that exercise and sufficient sleep improved their mood and relieved stress, highlighting the importance of physical well-being for mental health. This agrees with Rodriguez-Ayllon et al.'s (2019) recent meta-analysis which reported that physical activity was negatively related to indicators of poor well-being (negative affect, depression, stress and distress) and positively to indicators of high well-being (life satisfaction, happiness, self-image and PWB) in adolescents. The students' comments suggested that engaging in sport outside of school provides unique benefits, possibly as a mental break or as social support in the wider community. However, this interpretation requires further exploration.

#### Social well-being.

Keyes (1998) defined SWB as "the appraisal of one's circumstance as functioning in society" (p. 122) where 'social support' was identified as a prominent overarching theme, suggesting the importance of social relationships to APs. Cohen and Willis (1985) proposed two models to explain how social support may promote well-being. According to a 'buffering' model, it protects individuals from the detrimental impact of stressful events. Potentially, APs' EWB and SWB may have been promoted through this mechanism. Participants often spoke about how social support from teachers, parents and friends helped them to cope with challenges; conversations with friends, even if trivial, provided their main emotional support. Parents and teachers seemed to provide both informational and emotional support, with parents also providing instrumental (tangible) help. Therefore, findings suggest that social support may reduce APs' stress, agreeing with Dunkley et al. (2000).

Cohen and Willis (1985) proposed the 'main effect' model as an alternative explanation, suggesting that social support provides a general well-being benefit, irrespective of stress. Within the themes of 'being around others' and 'friendships', it seemed that APs valued social connection as it promoted feelings of acceptance, security and belonging. Links can be drawn with Baumeister and Leary's (1995) belongingness hypothesis that humans are driven to establish and maintain interpersonal relationships.

AP participants appeared to have established positive relationships with peers, parents and teachers. Gilman, Adams, and Nounopolous (2011) found that APs rated themselves as having significantly greater levels of positive interpersonal relationships

than MPs and non-perfectionists. More research is necessary to identify factors supporting APs to develop positive relationships, including methods to facilitate this process. The fact that APs felt comfortable approaching others for help shows that they trusted them and believed they would be willing and able to assist. Potentially, this helps them to establish and maintain positive relationships and perceive high social support. Furthermore, comments suggested that they were aware and appreciative of support received from others. Possibly, such appreciative awareness may further promote well-being and development of positive relationships, in line with research finding positive associations between gratitude and subjective well-being as well as social support in CYP (Froh, Yurkewicz, & Kashdan, 2008). However, as such links were not explicitly mentioned by participants or explored in this study, this hypothesis requires future research.

#### Psychological well-being.

Keyes (2005) described PWB as relating to the challenges that people face when attempting to perform at their best and discover individual strengths.

The finding that participants made internal and external context-specific attributions for facing challenges or failing to achieve a standard agreed with Speirs Neumeister (2004a). However, APs in the current study made attributions that were mostly internal, unstable and controllable. According to attribution theory, this pattern results in increased motivation and effort (Weiner, 2010), reflecting how APs responded to setbacks. Underpinning increased effort seemed to be a belief that they could improve or a growth mindset, "the belief that your basic qualities are things that you can cultivate through your efforts" (Dweck, 2006, p. 7). This finding is consistent with Chan's (2012) quantitative study with students aged 9–18 which found that adaptive perfectionism was positively associated with growth mindset. Some interviewed participants indicated that their method of responding to setbacks was positively reinforced by self-satisfaction experienced through achieving goals. This would demonstrate that APs' drive to achieve high standards is motivated by a hope of success (as opposed to a fear of failure) and positive reinforcement (rather than negative) as proposed by Slade and Owens's (1998) dual process model.

While APs seemed to embrace the idea that they could improve, they also appeared aware of their strengths and weaknesses, enabling them to accept lower standards in poorer areas. This could be an adaptive mechanism, protecting them from experiencing negative affect as a result of setting unattainable standards.

Another factor causing participants to experience high PWB was possible concern with self-development in non-academic work experience and extra-curricular activities to achieve 'personal growth', an aspect of PWB endorsed by Ryff (1989) and Keyes (2002).

Many participants described how their standards were driven by a desire for future achievement, including pursuing a specific career path or attending further education. This demonstrated a strong sense of purpose. As this was not specifically raised by participants as supporting their well-being, it was not listed as a theme, but future research could explore the effect of having high aspirations on perfectionists' well-being, perhaps drawing on Markus and Nurius's (1986) possible selves theory.

# 2.4.3 Strengths, Limitations and Associated Improvements for the Design of Future Research

This study has made a valuable addition to the limited perfectionism research with CYP. Unlike many previous studies focusing on links between perfectionism and psychopathology, it adopted a positive psychology perspective to explore how perfectionism might promote well-being. The use of a mixed methods approach was a key strength, enabling the researcher to attempt to explain some of the quantitative findings. The qualitative phase also provided a voice to flourishing APs, as no known studies have focused exclusively on this group. This research design resulted in a wealth of important findings with potential to benefit CYP, parents or carers and professionals.

This study also possessed several limitations. Self-reports were used to assess perfectionism and well-being. These are liable to biases such as social desirability to which perfectionists may be especially susceptible as trait perfectionism has been associated with perfectionistic self-presentation, promoting one's perfection to others and/or hiding imperfections (Hewitt et al., 2003). Therefore, future studies should attempt to triangulate self-report data by using additional informants (e.g., parents and teachers).

As the quantitative phase was cross-sectional, conclusions about causality are not possible. Longitudinal studies are required to overcome this limitation and to monitor whether perfectionism continues to provide well-being benefits as individuals progress through education and employment. Future work could attempt to replicate this study, to examine whether similar results are obtained when students are under the increased pressure of state examinations. Replications should also use different perfectionism and

well-being measures, as there is still lack of agreement regarding definitions and components of these concepts.

It is also possible that other variables could account for perfectionists' higher well-being, e.g., academic achievement. Perhaps perfectionists in this study were frequently meeting their high standards, resulting in higher well-being. Information on academic performance was collected but not analysed due to time and space limitations and because it did not directly relate to the research questions. More studies are required to explore mediators between perfectionism and well-being.

As the qualitative phase did not include a comparison group (e.g., languishing MPs), conclusions about whether findings account for APs' higher well-being should be treated cautiously. Future qualitative studies should compare different groups to overcome this limitation.

Data was collected from two schools only. As most participants were White British, the sample did not reflect current ethnic diversity in U.K. state secondary schools (Department for Education, 2019). Data was collected from two schools only. As most participants were White British, the sample did not reflect current ethnic diversity in U.K. state secondary schools (Department for Education, 2019). Also, the additional analysis conducted (see Appendix R) indicated that students' well-being scores were higher in school 1 than school 2. This may have been linked to differences in school characteristics. School 1 was located in a less disadvantaged area and was smaller in size with higher student academic attainment. Its practice of dedicating an hour of the school day to participation in extra-curricular activities may have provided well-being benefits to its students. The school also received an outstanding rating for personal development, behaviour and welfare by Ofsted, the U.K. government body responsible for inspecting schools. Thus, students in this school may have been exposed to several advantageous experiences; their cumulative effect may have resulted in higher well-being. As the majority of students participating in the quantitative and qualitative phases were from this school, such experiences may have exerted a significant influence on findings. Future research should collect data from a broader range of schools to increase the generalisability of results and explore the impact of the school context, characteristics and ethos on perfectionism and well-being.

While females were slightly over-represented in the quantitative phase, only three of the 11 participants were female. Future studies should achieve a greater balance to explore influences between biological sex, gender, perfectionism and well-being.

There was a 3–4-month gap between the quantitative and qualitative phases due to school summer holidays. It is possible that when the qualitative phase was conducted, students no longer met criteria for adaptive perfectionism and flourishing due to life events in the intervening period. However, Lamers, Westerhof, Bohlmeijer, ten Klooster, and Keyes (2011) reported that the 3-month test-retest reliability of the MHC-SF was .68, which is very close to the recommended .70 value for group comparisons (Nunnally & Bernstein, 1994). Eight–10-week test-retest correlations for the APS-R have ranged from .76–.87 (Rice & Aldea, 2006). Although these results indicate that the scales had adequate stability, similar future studies should minimise time between phases or repeat the questionnaires prior to the qualitative phase.

Finally, participants were informed prior to interview that their questionnaire data had indicated traits of a helpful form of perfectionism and high well-being. Although reassured that this description might not fit with their self-perceptions and that the researcher was seeking honest responses, they might still have felt pressure to conform to this description, potentially due a perceived power difference in the researcher-participant relationship.

#### 2.4.4 Implications for Practice and Conclusions

The study's findings have important implications for school staff, EPs and parents or carers working with CYP displaying perfectionistic tendencies. They may also be helpful for CYP who experience perfectionism to understand its various positive and negative aspects. The study highlighted that students classed as APs had higher well-being than those classed as MPs and non-perfectionists. Surprisingly, MPs also had higher TWB and PWB than non-perfectionists, suggesting that maladaptive perfectionism may also provide some benefits.

Based on these findings, adults working with CYP displaying perfectionistic tendencies should not assume that they are at risk of negative outcomes and must carefully consider if or to what extent perfectionism has a positive and/or detrimental impact on their mental health. School staff and other professionals may wish to use the freely accessible

questionnaires of this study to help to inform decisions about whether CYP require support and explore with individuals the potential benefits and drawbacks of any intervention.

This study recommends several strategies that may be used by adults to support all CYP to move further towards flourishing, especially where perfectionism poses a challenge to well-being. Firstly, CYP should be taught to develop coping strategies to manage stress and challenges more effectively, including techniques to reduce or eliminate stressors and relieve stress (e.g., positive reappraisal). They should also be encouraged to engage in activities outside of school to achieve a healthy work-life balance.

Based on the value participants placed on social support, it is essential to ensure that CYP foster positive relationships with others and a sense of belonging. In a review of sense of belonging in school, Osterman (2000) concluded that schools can promote positive interactions between fellow students and staff members by using social, classroom and organisational practices. While the establishment of a social network is important, it is crucial that students can seek necessary support from those within it. Teachers should be easily approachable to give advice on work and personal issues. They could also promote peer support by mentoring training (see review by Mentoring Befriending Foundation, 2010) or 'circle of friends' approaches (Pearpoint & Forest, 1992). Parents should aim to be supportive and encouraging without placing undue pressure on their children to achieve excessively high standards.

Study findings indicated that striving for high standards may promote well-being. Interviews with APs provided insights into striving as "part of a healthy pursuit of excellence" (Stoeber, Edbrooke-Childs, & Damian, 2018, p. 2737) rather than a source of distress. CYP should be encouraged to adopt a flexible approach to high standards that can be lowered if necessary and to acknowledge and savour improvements or achievements. They should be taught to adopt a growth mindset: mistakes are opportunities for learning and abilities can be improved through increased effort. They should also be encouraged to develop themselves in areas outside of schoolwork so that they may establish a sense of self-worth that is not solely based on academic achievements.

In demonstrating the different facets to the concept of perfectionism and reasons why students with adaptive perfectionism may flourish, this study points to some broad reflections for the fields of psychology and education. It stresses the importance of clearly understanding an issue or psychological phenomenon before attempting to control or change it. This study also reinforces the value of positive psychology approaches, seeking

to learn from what benefits CYP in school, rather than emphasising difficulties or deficits. Finally, this research indicates that key factors promoting the emotional, social and academic well-being and achievement of CYP are not complex or 'rocket science'. Instead, they may be viewed as 'common sense' factors, reinforcing what is already widely known in psychological and educational domains. Such wider reflections provide encouragement that educational psychology research and practice may, sometimes, be an endeavour of phronêsis, practical wisdom. Indeed, Mercieca and Mercieca (2016) advocate strongly for EPs to engage in the intellectual and practical forms of phronêsis. The value of discovering and sharing simple, sensible and ethical approaches for learning and well-being can be, fittingly, demonstrated in Caleb's view of his ability to flourish, "I just put my head down and get on with it and just try my hardest". There may be some humble and honest value in this advice for all of us.

## **Appendix A Systematic Review: Search Terms**

Population	Intervention	Outcome
child*	intervention*	perfection*
adolescen*	treatment*	
"young person"	therap*	
"young people"	program*	
"young adult*"	train*	
teen*	instruct*	
youth*	teach*	
student*	strateg*	
pupil*	prevent*	
juvenile*		
kid*		

An adapted PICO (Population, Intervention, Comparison, Outcome) framework (see above) was used to generate search terms. Asterisks were used to locate relevant variants of words beginning with the same letters as search terms (e.g., results containing the words "perfectionism" and "perfectionist" could also be retrieved using the term "perfection\*"). Quotation marks were used when searching for phrases (e.g., "young adult").

Search terms were combined using "AND" and "OR" to create the following search string: (child\* OR adolescen\* OR "young person" OR "young people" OR teen\* OR youth\* OR student\* OR pupil\* OR "young adult\*" OR juvenile\* OR kid\*) AND (intervention\* OR treatment\* OR therap\* OR program\* OR train\* OR instruct\* OR teach\* OR strateg\* OR prevent\*) AND (perfection\*).

## **Appendix B Systematic Review: Data Extraction Table**

Authors, publication date and country	Study design	Participant characteristics	Intervention and any comparators	Relevant outcome measures	Relevant findings
Akay & Bratton (2017) US	Single-case experimental design  Data collection time points: The participant competed self-report measures twice weekly over baseline, intervention and maintenance phases. Parent and teacher reports were completed five times across the study.	N: 1 (male)  Elementary school student with elevated perfectionism  Age: 10  Ethnicity: Hispanic American	Intervention: 22 × 30-minute 1:1 Adlerian play therapy sessions. The participant's teacher and mother attended 15–20-minute meetings with the therapist every fortnight.  Intervention facilitator(s): the researcher	The participant completed the Self-oriented Perfectionism (SOP) and Socially Prescribed Perfectionism (SPP) subscales from the Child-Adolescent Perfectionism Scale (CAPS; Flett, Hewitt, Boucher, Davidson, & Munro, 2000).  The participant's teacher and parent completed the Perfectionism subscales from the Conners Rating Scales-Revised (Conners, Sitarenios, Parker, & Epstein, 1998).	Percentage of data points exceeding the median analysis on self-report data indicated that the intervention was ineffective in reducing perfectionism. Individual phase analysis suggested an improvement in SPP in the intervention phase which was not maintained. Parent and teacher ratings indicated a reduction in the participant's perfectionism from the clinical to normal range which was maintained.

Bento, Pereira, Roque, Tavares Saraiva, & Ferreira Macedo e Santos (2017) Portugal	Quasi-experimental controlled before and after study  Data collection time points: pre-intervention and 2-and 6-months follow-up	N: 978 (58.9% female, 41.1% male)  Non-clinical sample of high school students  Mean age: 15.80 years  Age range: 11–18  Ethnicity: unreported	Intervention group: single session based on a cognitive behavioural therapy (CBT) approach and Antony and Swinson's (2009) book. Students were taught about the nature of perfectionism and coping skills.  Active control group: skills session focusing on developing healthy practices (e.g., sleep, diet, exercise)  Passive control group: no intervention  Intervention facilitator(s): unreported	The Portuguese form (Bento, Pereira, Saraiva, & Macedo, 2014) of the CAPS (Flett et al., 2000)	The intervention group had significantly lower SOP scores, but not SPP or total CAPS scores, at 2 and 6-months follow-up. No reductions in perfectionism were found for the active and passive control groups apart from a significant reduction in SOP for the passive control group at 6-months follow-up compared to baseline.
Craciun (2013) <sup>a</sup> Romania	Quasi-experimental controlled before and after study  Data collection time points: pre- and post-intervention	N: 124 (68 male, 56 female)  Non-clinical sample of secondary school students	Intervention group: 15 × 2 hr CBT sessions focusing on helping participants to identify and challenge irrational beliefs, develop self-acceptance and interpersonal relationships, identify links between thoughts, feelings and	Perfectionism subscale of Weissman and Beck's (1978) Dysfunctional Attitude Scale (DAS)	The intervention group's perfectionism scores significantly decreased from pre- to post-intervention and post-intervention scores were significantly lower than those of the active and passive control groups.

		Mean age: 16.21 years  Age range: 15–17 years  Ethnicity: unreported	behaviour, and learn relaxation and assertiveness techniques.  Active control group: sessions on topics including information technology, careers and society  Control group: no intervention  Intervention facilitator(s): two CBT therapists (intervention group), school teacher (active control group)		However, it was unclear whether there were pretest differences between groups and whether there were also reductions for controls.
Fairweather- Schmidt & Wade (2015) Australia	Cluster randomised controlled trial  Data collection time points: pre- and post-intervention and 4-weeks follow-up	N: 125 (47.2% female)  Non-clinical sample of primary school students  Mean age: 11.60 years  Age range: 9.91–13.91	Intervention group: 'Minding Young Minds' intervention involving 2 × 45-minute sessions influenced by the cognitive-behavioural model of clinical perfectionism (Shafran, Cooper, & Fairburn, 2002). Session one focused on the difference between perfectionism and	Short form (14-items) of the CAPS (Flett et al., 2000) developed by O'Connor, Dixon, and Rasmussen (2009)	The intervention group had significantly lower SOP-striving than the control group at post-intervention and 4-weeks follow up. No differences were found for SOP-critical or SPP.

		Ethnicity: unreported	striving for excellence, the value of errors and the problems with basing self-worth on achievements. Session two focused on managing self-criticism and recognising successes.  Control group: class as usual  Intervention facilitator(s): clinical PhD student		
Hayati & Parto (2018) Iran	Quasi-experimental controlled before and after study  Data collection time points: pre-and post-intervention	N: 30 (gender breakdown unreported)  Non-clinical sample of high school students  Mean age: unreported  Age range: unreported  Ethnicity: unreported	Intervention group: metacognitive therapy. No further information was provided on the intervention.  Control group: No information provided  Intervention facilitator(s): unreported	The Perfectionism Inventory (Hill et al., 2004)	Results suggested that when controlling for pretest differences, the experimental group had significantly lower perfectionism post-test scores than the control group.

Hurst & Zimmer-Gembeck (2015) Australia	Case series  Data collection time points: 1. when family-based treatment (FBT) commenced, 2. at phase 2 of FBT and the start of cognitive behavioural therapy for perfectionism (CBT-P), 3. when CBT-P had finished and 4. when all interventions had ended	N: 3 females Clinical sample: All participants had anorexia diagnoses. Mean age: unreported Age range: 16–17 years Ethnicity: unreported	Intervention: 9 × 1 hr 1:1 CBT-P sessions. The 'Perfectionism in Perspective' programme (Fursland, Raykos, & Steele, 2009) was based on Shafran et al.'s (2002) model of clinical perfectionism. It included content on the nature of perfectionism, causal and maintaining factors, advantages and disadvantages of changing perfectionism, techniques for lowering perfectionistic actions, challenging perfectionistic thoughts and widening criteria used to judge self-worth.  Participants also received 20 × 1 hr FBT sessions targeting anorexia.  No control group  Intervention facilitator(s): unreported	The CAPS (Flett et al., 2000)	A graph showed that participants' SOP and SPP scores decreased from pre- to post-CBT-P and decreased further or were maintained after all interventions had been completed. No statistical analysis on scores was reported.
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Hurst & Zimmer-Gembeck (2019) Australia	Case series  Data collection time points: same as above study	N: 21 (all female) Clinical sample: All participants had anorexia diagnoses. Mean age: 14.9 years Age range: 12–17 Ethnicity: unreported	Intervention: CBT-P and FBT (same as above study) No control group Intervention facilitator(s): two psychologists (including one of the researchers)	The CAPS (Flett et al., 2000)  The Perfectionism and Overcontrol subscales of the Eating Disorder Inventory-3 (EDI-3; Garner, 2004)	There were significant decreases in EDI-3 perfectionism, EDI-3 overcontrol and SOP, but not SPP, after CBT-P and at the end of all intervention compared to pre-intervention.  Reliable change indices indicated that while between 32% and 58% of participants experienced reductions in perfectionism across the different measures, 11% experienced increases and the rest did not experience changes.
Kelly (2015) – dissertation US	Quasi-experimental uncontrolled before and after study  Data collection time points: preintervention, midintervention, postintervention and 4-months follow-up.	N: 17 (all female) Clinical sample of high school students meeting thresholds for anxiety disorder diagnoses Mean age: 15.38 years	Intervention: 8 × weekly 90-minute Acceptance and Commitment Therapy sessions. Content addressed the nature of stress and anxiety, how attendees have managed past challenging experiences (e.g., making errors), accepting	Almost Perfect Scale-Revised (APS-R; Slaney, Mobley, Trippi, Ashby, & Johnson, 1996; Slaney, Rice, Mobley, Trippi, & Ashby, 2001)  The CAPS (Flett et al., 2000)	There was no difference in categorisation of participants as maladaptive and adaptive perfectionists between pre-intervention and follow-up.  There were no differences between pre- and post-

		Age range: 14–18 years Ethnicity: 40%, Caucasian, 26.7% Asian/Indian, 20%Hispanic, 13.3% Biracial	comfortable and uncomfortable emotions and cognitions, mindfulness exercises and identifying values and value-consistent behaviours.  No control group  Intervention facilitator(s): jointly led by a clinical psychologist and clinical psychology postgraduate students		intervention for any perfectionism variable.  A trend was found where maladaptive perfectionism, SOP and SPP increased from pre-intervention to midintervention before decreasing again to follow-up.
Klein (2004) – Dissertation US	Cluster randomised controlled trial  Data collection time points: pre-intervention, post-intervention and, for those in the intervention group, 6-months follow-up	N: 62 (50% male, 50% female)  Non-clinical sample of gifted middle school students.  Ethnicity: 93.5% Caucasian, 6.5% Non-Caucasian  Mean age: 11.65 years	Intervention group: 'Reaching New Heights' programme consisting of 13 × 50-minute weekly sessions with modules on stress and time management, perfectionism and relaxation. Modules addressed the nature of perfectionism, the importance of basing self- worth on personal qualities rather than achievements, the benefits of mistakes	The Concerns about Mistakes, Doubts about Actions and Personal Standards subscales of the Multi-dimensional Perfectionism Scale (FMPS; Frost, Marten, Lahart, & Rosenblate, 1990). The SPP subscale of the CAPS (Flett et al., 2000)	Results indicated that the intervention had no effect on the perfectionism measures.

		Age range: unreported but participants were 6 <sup>th</sup> and 7 <sup>th</sup> grade pupils	and challenging negative thoughts maintaining perfectionism and perceptions that others expect perfection.  Control group: Wait-list Intervention facilitator(s): the researcher (sometimes supported by an undergraduate)		
Mofield & Chakraborti-Ghosh (2010) US	Quasi-experimental controlled before and after study  Data collection time points: pre- and post-intervention	N: 153 (70 males, 83 female)  Non-clinical sample of gifted middle school students  Additional analyses were also conducted on a subgroup with elevated maladaptive perfectionism.  Mean age: unreported	Intervention group: An affective curriculum ('Searching for Perfect Balance') was delivered over 9 × 45–50-minute sessions. Topics covered included the difference between and maladaptive perfectionism and striving for high standards, sources and consequences of perfectionism, challenging negative thinking, problem-solving, relaxation strategies, positive self-talk and setting attainable goals.	The Goals and Work Habits Survey (Schuler, 1994), an adapted version of the FMPS (Frost et al., 1990)	There were no significant differences between the post-test scores of the intervention and control groups on any perfectionism dimension.  Subgroup analyses for participants with elevated perfectionism:  The intervention group's concern over mistakes, doubts about actions and personal standards scores were significantly lower at post-test than pre-test. However, the control group's concern over

		Age range: unreported but participants were in grades 6–8  Ethnicity: 3.3% Asian, 5.2% Black, 88.2% White, 2.6% Hispanic, .7% Other	Control group: proceeded with usual academic curriculum  Intervention facilitator(s): teachers (including one of the researchers)		mistakes and parental expectations scores also significantly decreased from pre-test to post-test.
Nehmy & Wade (2015) Australia	Quasi-experimental controlled before and after study  Data collection time points: pre-intervention, post-intervention and 6-and 12-months follow-up	N: 688 (67.9% female)  Non-clinical sample of secondary school students  Mean age: 14.90 years  Age range: 11.82–18.02 years  Ethnicity: predominately Caucasian	Intervention group: 'Healthy Minds' programme involving 8 interactive sessions based on Shafran et al.'s (2002) clinical perfectionism model. Topics included the disadvantages of maladaptive perfectionism, the value of mistakes, the media's influence, emotions, CBT principles (e.g., challenging negative thoughts), optimism, stress and self-compassion.  Control group: only completed measures	Perfectionism subscale from the DAS (Weissman & Beck, 1978)	There were no differences between groups at post-intervention, but the intervention group had significantly lower unhelpful perfectionism scores than the control group at 6- and 12-months follow-up.

			Intervention facilitator(s): One of the researchers delivered most sessions. A few were delivered by a postgraduate student. Both facilitators were also clinical psychologists.		
Rafat, Sanatkaran, & Mohammadkhani (2018) Iran	Quasi-experimental controlled before and after study  Data collection time points: pre- and post-intervention	N: 30 (appeared to be an all-male sample but reporting was inconsistent)  Professional athletes with elevated negative perfectionism and burnout scores  Mean age: unreported  Age range: 14–18  Ethnicity: unreported	Intervention group: 8 × 60-minute rational emotive behaviour therapy sessions. Sessions focused on discussing the nature and consequences of perfectionism and burnout, challenging irrational thoughts and replacing 'unhealthy' negative emotions with healthier ones.  Control group: no intervention  Intervention facilitator(s): unreported	The Positive and Negative Perfectionism Scale (Terry-Short, Owens, Slade, & Dewey, 1995)	At post-intervention, the negative perfectionism scores of the intervention group had descreased from pre-intervention while those of the control group slightly increased. There was a significant difference in mean changes between groups for negative, but not positive, perfectionism.
Shu et al. (2019) Australia	Randomised controlled trial	<i>N</i> : 94 (all female)	Intervention group: 8 sessions of unguided internet-delivered CBT for	The Clinical Perfectionism Questionnaire (Fairburn, Cooper, & Shafran 2003).	At post-intervention, the ICBT-P and ICBT-S groups had significantly

Vekas & Wade (2017)	Quasi-experimental controlled before and	Ethnicity: unreported  N: 212 (74 male, 138 female)	and actions, self- compassion and widening criteria used to assess self- worth.  Active control group: unguided ICBT for general stress (ICBT-S)  Wait-list control group: completed measures without intervention  Intervention facilitator(s): none required  Intervention group: 3 × 45- minute interactive lessons.	The SOP-striving subscale from the 14-item version of	months follow-up. At 6-months follow-up, the ICBT-P group had significantly lower scores on both measures than the control group and significantly lower scores than the ICBT-S group on perfectionistic concerns.  ICBT-P was more effective than ICBT-S in preventing increases in perfectionistic concerns over 6-months follow-up.  The intervention group had significantly lower
	Data collection time points: pre- intervention, post- intervention and 3- and 6-months follow- up	Participants identified themselves as having problems with perfectionism.  Mean age: 16.2 years  Age range: 14–19 years	perfectionism (ICBT-P) informed by Shafran, Egan, and Wade's (2010) book on CBT techniques for perfectionism. Content addressed the nature of perfectionism, creating an individual formulation, increasing motivation to modify perfectionism, challenging maladaptive perfectionistic thoughts		lower perfectionistic strivings scores than the control group and the ICBT-P group had significantly lower perfectionistic concerns scores than other groups. The ICBT-P group had significantly lower scores on both perfectionism outcome measures than the other groups at 3-

Australia	Data collection time points: pre- and post-intervention and 3-months follow-up	Non-clinical sample of primary school students  Mean age: 11.1 years  Age range: 10.08–12.79 years  Ethnicity: predominately Caucasian	Minds' intervention was based on the model of clinical perfectionism (Shafran et al., 2002). The first session focused on defining perfectionism and its disadvantages as well as the benefits of making mistakes. The second session focused on exploring differences between perfectionism and striving for high standards and coping strategies. The third session focused on self-compassion.  Control group: class as usual  Intervention facilitator(s): one of the researchers	2000) developed by O'Connor et al. (2009)  The Inadequate-self and Reassure-self subscales from the Forms of Self-criticizing/attacking and Self-reassuring Scale (Gilbert, Clarke, Hempel, Miles, & Irons, 2004) were combined to give a measure of self-criticism.	the control group at post-intervention. There were no differences in self-criticism between groups.
Wilksch, Durbridge, & Wade (2008) Australia	Cluster randomised control trial  Data collection time points: Pre- and post-intervention and 3-months follow-up	N: 138 (all female)  Non-clinical sample of secondary school students with participants being identified as either	Perfectionism intervention group: 8 × 50-minute interactive lessons based on Adderholdt and Goldberg's (1999) book. It included content on the nature of perfectionism, its disadvantages, the	Concern over Mistakes and Personal Standards subscales from the FMPS (Frost et al., 1990)	Following the intervention, the perfectionism group's mean concern over mistakes score was significantly lower than that of the control group. The perfectionism group's

		at high or low risk for eating disorders.  Mean age: 15.0 years  Age range: unreported but all participants were in 10 <sup>th</sup> grade  Ethnicity: information not gathered but participants were reported to be predominately White	difference between perfectionism and striving for high standards, causal and maintaining factors, challenging perfectionistic thinking, re-evaluating failure, modifying behaviour and coping.  Media literacy intervention group  Control group: class as usual  Intervention facilitator(s): One researcher delivered the perfectionism intervention. Another researcher and a research assistant separately delivered the media literacy intervention.		mean personal standards score was significantly lower than that of the media literacy group.  At 3-months follow-up, for students at high risk of eating disorders, the perfectionism group had significantly lower concern over mistakes scores than the media literacy and control groups. For low-risk students, the perfectionism group had significantly lower concern over mistakes scores than the control group.  Reliable change indices also indicated greater improvements for highrisk students in the perfectionism group.
Wilksch, Starkey, Gannoni, Kelly, & Wade (2013)	Case series  Data collection time points: baseline (4	N: 20 (all female)	Intervention: 2 × 4 hr sessions focusing on identified eating disorder risk factors (perfectionism,	Personal Standards and Concern over Mistakes subscales of the FMPS (Frost et al., 1990)	Mean concern over mistakes and personal standards scores were significantly lower at

Australia	weeks before the start of the intervention), pre-intervention, post- intervention and 1-	Participants all had type 1 diabetes	self-esteem and media- literacy). The perfectionism content focused on exploring its	post-intervention than baseline. Improvements were maintained at 1-
	month follow-up.	Mean age: 11.06 years  Age range: 10–12 years  Ethnicity: information unreported	nature.  No control group  Intervention facilitator(s): two of the researchers	month follow-up.  Some improvements in concern over mistakes and personal standards were noted from baseline to pre-intervention, suggesting that some changes not due to the intervention occurred.

*Note.* <sup>a</sup> The researcher cannot guarantee that this paper was peer-reviewed as the journal (Procedia - Social and Behavioral Sciences) no longer exists and there has been some controversy around it, including its peer-review process. However, it was reasonably assumed when the review first took place that the publisher (Elsevier) and the journal were peer-reviewed and reputable. The researcher chose to retain this study in the review on the grounds that it was quality assessed alongside all other studies.

# **Appendix C Systematic Review: Quality Assessment of Included Studies**

Adapted Downs and Black (1998) checklist. Italics show additional explanation for any question where significant differences were made to the original checklist.

	Scoring
Reporting	
1. Is the hypothesis/aim/objective of the study clearly described?	Yes = 1; No = 0
2. Are the main outcomes to be measured clearly described in the introduction or methods section?	Yes = 1; No = $0$
3. Are the characteristics of the participants included in the study clearly described?	Yes = 1; No = 0
4. Are the interventions of interest clearly described?	Yes = 1; No = 0
5. Are the distributions of principal confounders in each group of participants to be compared clearly described? (Are potential confounding variables described and considered?)	Yes = 2; Partially = 1; No = 0
6. Are the main findings of the study clearly described?	Yes = 1; No = $0$
7. Does the study provide estimates of the random variability in the data for the main outcomes?	Yes = 1; No = 0
8. Have any potential adverse events that may be a consequence of the intervention been considered by the researchers? This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events (e.g., through clinically significant change analysis) or if the researchers have mentioned potential negative outcomes of the intervention in the paper (e.g., in the discussion section).	Yes = 1; No = 0
9. Have the characteristics of participants lost to follow-up been described? This should be answered yes where there were no losses to follow-up or the characteristics of those lost were clearly described (e.g., experimental/control group membership). This should be answered no when a study does not report the number of participants lost to follow-up or their characteristics were not clearly described.	Yes = 1; No = 0

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10. Have actual probability values been reported (e.g., 0.035 rather than <0.05) for the main outcomes, except where the probability value is <0.001?	Yes = 1; No = $0$
External validity	
11. Were the participants asked to participate in the study representative of the entire population from which they were recruited?	Yes = 1; No = 0; Unable to determine = 0
12. Were those participants who were prepared to participate representative of the entire population from which they were recruited?	Yes = 1; No = 0; Unable to determine = 0
13. Were the settings where the participants received the intervention representative of what participants experience in their everyday lives (including where they might typically receive intervention, if applicable)?	Yes = 1; No = 0; Unable to determine = 0
Internal validity – bias	
14. Was an attempt made to blind study participants to the intervention they have received?	Yes = 1; No = 0; Unable to determine = 0
15. Was an attempt made to blind those measuring the main outcomes of the intervention?	Yes = 1; No = 0; Unable to determine = 0
16. If any of the results of the study were based on "data dredging", was this made clear?	Yes = 1; No = 0; Unable to determine = 0
17. Do the analyses adjust for different lengths of follow-up of participants (are the time periods between intervention and assessment or between different assessment points the same for all participants)?	Yes = 1; No = 0; Unable to determine = 0
18. Were the statistical tests used to assess the main outcomes appropriate?	Yes = 1; No = 0; Unable to determine = 0
19. Was compliance with the intervention(s) reliable?	Yes = 1; No = 0; Unable to determine = 0
20. Were the main outcome measures used accurate (valid and reliable)?	Yes = 1; No = 0; Unable to determine = 0

Internal validity – confounding	
21. Were the participants in different intervention groups recruited from the same population? For example, participants for all comparison groups should be selected from the same school. The question should be answered "unable to determine" where there is no information concerning the source of participants included in the study. For studies where there were no comparison groups, a point should be awarded if participants were from the same population.	Yes = 1; No = 0; Unable to determine = 0
22. Were study participants recruited over the same period of time?	Yes = 1; No = 0; Unable to determine = 0
23. Were study participants randomised to intervention groups?	Yes = 1; No = 0; Unable to determine = 0
24. Was the randomised intervention assignment concealed from both participants and healthcare or school staff until recruitment was complete and irrevocable?	Yes = 1; No = 0; Unable to determine = 0
25. Was there adequate adjustment for confounding variables in the analyses from which the main findings were drawn?	Yes = 1; No = 0; Unable to determine = 0
26. Were losses of participants to follow-up taken into account? If the numbers of participants lost to follow-up are not reported, the question should be answered as "unable to determine". If no participants were lost to follow-up or adjustments were made to account for participants lost (e.g., appropriate missing data analysis), the question should be answered yes.	Yes = 1; No = 0; Unable to determine = 0
27. Where the researchers conducted a power analysis, did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%? <i>If no power analysis was conducted, select unable to determine.</i>	Yes = 1; No = 0; unable to determine = 0

Question Number	Bento et al. (2017)	Cracian (2013)	Fairweather- Schmidt & Wade (2015)	Hayati (2018)	Hurst & Zimmer- Gembeck (2015)	Hurst & Zimmer- Gembeck (2019)	Kelly (2015)	Klein (2004)	Mofield & Chakraborti- Ghosh (2010)	Nehmy & Wade (2015)	Rafat et al. (2018)	Shu et al. (2019)	Vekas & Wade (2017)	Wilksch et al. (2013)	Wilksch et al. (2008)
1.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1
4.	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
5.	2	0	2	0	0	0	0	2	2	2	0	2	2	1	2
6.	1	0	1	0	0	1	1	1	0	1	0	1	1	1	1
7.	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1
8.	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1
9.	0	1	1	0	1	1	0	0	1	1	0	1	1	1	1
10.	1	1	1	1	0	0	1	0	1	1	1	1	1	1	1
Reporting total	9	6	10	4	5	8	8	8	9	9	5	11	10	9	11
11.	UTD	UTD	UTD	UTD	UTD	UTD	UTD	UTD	0	UTD	UTD	UTD	UTD	UTD	UTD
12.	UTD	UTD	0	UTD	UTD	UTD	UTD	UTD	UTD	0	UTD	UTD	0	UTD	UTD
13.	1	1	1	UTD	UTD	1	1	1	1	1	UTD	UTD	1	1	1
External validity total	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
14.	UTD	UTD	0	0	NA	NA	NA	0	0	0	0	0	0	NA	0
15.	UTD	UTD	UTD	0	NA	NA	NA	0	0	0	UTD	1	0	NA	0
16.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17.	1	1	1	UTD	UTD	UTD	1	1	1	0	1	1	1	1	1
18.	1	0	1	0	0	1	1	1	0	1	0	1	1	1	1
19.	UTD	UTD	UTD	UTD	UTD	UTD	0	1	1	UTD	UTD	0	UTD	UTD	UTD
20.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Internal validity (bias) total	4	3	4	2	2	3	4	5	4	3	3	5	4	4	4
21.	0	UTD	1	UTD	UTD	1	UTD	1	0	1	1	UTD	1	1	1
22.	UTD	UTD	1	UTD	UTD	0	UTD	UTD	1	UTD	1	UTD	1	UTD	1
23.	0	0	1	UTD	0	0	0	1	0	0	UTD	1	0	0	1
24.	0	0	UTD	0	0	0	0	UTD	0	0	UTD	1	0	0	UTD
25.	1	0	1	0	0	0	0	0	1	1	0	1	1	1	1
26.	UTD	1	1	UTD	1	1	1	UTD	1	1	UTD	1	1	1	1
Internal validity (confounding) total	1	1	5	0	1	2	1	2	3	3	2	4	4	3	5
27.	UTD	0	1	0	0										
Overall total	15	11	20	6	8	14	14	16	17	16	10	20	20	17	21

Quality assessment of single-case experimental design study (Akay & Bratton, 2017) using adapted version of the Evaluative Method (Reichow, Volkmar, & Cicchetti, 2008).

Primary quality indictors:	Scoring: high, acceptable, or unacceptable quality
Participant characteristics: 1. Age and gender were provided for all participants, 2. Information on the characteristics of the interventionist was provided, 3. If a study provides standardised test scores, the measures used to obtain those scores are provided.	High
<b>Independent variable</b> : Information about the intervention was provided with replicable precision (if a manual was used, this was always given a high quality rating).	High
<b>Dependent variable:</b> Dependent measures were described with operational and replicable precision, showed a clear link to the intervention outcome, and were collected at appropriate times.	High
<b>Baseline condition:</b> All baselines (a) encompassed at least three measurement points, (b) appeared through visual analysis to be stable, (c) had no trend or a counter therapeutic trend, and (d) were operationally defined with replicable precision.	Acceptable
Visual analysis: All relevant data for each participant was graphed. Inspection of the graphs revealed (a) all data appeared to be stable (level and/or trend), (b) contained less than 25% overlap of data points between adjacent conditions, unless behaviour was at ceiling or floor levels in previous condition, and (c) showed a large shift in level or trend between adjacent conditions which coincided with the implementation or removal of the IV (note, if there was a delay in change at the manipulation of the IV, the delay was similar across different conditions and/or participants [±50% of delay]).	Unacceptable
Experimental control: There were (a) at least three demonstrations of the experimental effect, (b) at three different points in time, and (c) changes in the DVs covaried with the manipulation of the IV in all instances of replication (note, if there was a delay in change at the manipulation of the IV, the delay was similar across different conditions or participants [±50% of delay]).	Unacceptable
Secondary quality indicators:	Scoring: evidence or no evidence
<b>Interobserver agreement:</b> IOA was collected on at least 20% of sessions across all conditions, raters, and participants with interrater agreement at or above .80.	No evidence

<b>Kappa:</b> Kappa was calculated on at least 20% of sessions across all conditions, raters, and participants with a score at or greater than .60 (good reliability).	No evidence
<b>Fidelity:</b> Procedural fidelity and/or intervention fidelity was continuously assessed across participants, conditions, and implementers with reliability at or greater than .80.	No evidence
<b>Blind raters:</b> Raters were blind to the intervention condition of the participants.	No evidence
Generalization and/or maintenance: Outcome measures were collected after the conclusion of the intervention to assess generalization and/or maintenance.	Evidence
Social validity: The study contained at least four of the following; (a) DVs were socially important (i.e., would society value the changes in outcome of the study), (b) the intervention was time and cost effective (i.e., did the ends justify the means), (c) comparisons were made between individuals with and without traits of interest to the study, (d) the behavioural change was large enough for practical value (clinically significant), (e) the consumers were satisfied with the results, (f) people who typically come in contact with the participant manipulated the IVs, (g) the study occurred in natural contexts.	Evidence
Quality rating:	Weak research report strength

# Appendix D Head Teacher Information Sheet and Consent Forms



#### **Head Teacher Information Sheet**

**Study Title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

Researcher: Lauren Holmes ERGO number: 48076

Dear Sir/Madam,

I am a Trainee Educational Psychologist studying for the Doctorate in Educational Psychology at the University of Southampton. As part of the doctorate, I am conducting a thesis exploring perfectionism and flourishing (i.e. high well-being) in secondary school students. I am writing to you as I would like to invite Year 9 and Year 10 students in your setting to participate in my research.

Please carefully read the information below about the study before deciding whether you consent to it taking place in your setting. Please ask questions if anything is unclear or you would like more information. If you are happy for the study to take place in your school, you will be asked to sign a consent form.

Yours sincerely, Lauren Holmes, Trainee Educational Psychologist

#### What is the research about?

Research suggests that there are different forms of perfectionism. Some perfectionists gain great satisfaction from setting high standards and striving to reach these. These individuals are sometimes called 'adaptive' perfectionists. Other 'maladaptive' perfectionists may never feel happy with their performance and experience frustration when they cannot reach their high standards. The purpose of the study is to develop understanding of how perfectionism relates to well-being by exploring whether students displaying traits of adaptive perfectionism have higher well-being than students displaying traits of maladaptive perfectionism and students classified as non-perfectionists. Additionally, the study will explore the views and experiences of students displaying traits of perfectionism regarding school and achievement. Insights gained from this research may be used to support those with less adaptive perfectionism.

The study will involve two parts:

- (i) A survey including demographic questions and two questionnaires (one measuring well-being/flourishing and another measuring perfectionism).
- (ii) Face-to-face individual interviews with a very small number of young people whose survey data indicate that they meet the criteria for perfectionism to further explore their views and experiences of school and achievement.

#### Why has my school been asked to participate?

I am recruiting students attending state-funded mainstream secondary schools.

#### What will happen if the school agrees to take part?

If you agree for the study to take place in your setting, I will first ask you to provide the name of a school contact who I can communicate with about the study. This person will need to securely store a list of participants' names and unique identification codes in the school and assist me with following up certain participants.

The school will be asked to send out information letters and opt-out consent forms to the parents/carers of students in Years 9 and 10 regarding participation in the survey – i.e. the first part of the study. Please note that before sending out recruitment materials and collecting data for the survey, I will ask the school's Special Educational Needs Coordinator (SENCO) if there are any students who would not be appropriate for recruitment or participation in the study (e.g. due to an inability to access the study materials or other personal reasons). However, I will seek to explore with the SENCO whether any barriers to inclusion could be overcome before excluding anyone from the recruitment process. All other students will be invited to participate in the research unless their parents/carers have returned opt-out consent forms.

I will then visit the school to facilitate data collection sessions with groups of participants during normal school hours alongside a school staff member. I will liaise with the school to arrange suitable dates and times for these sessions. It is preferable for the session to take place in a school computer room so that the data can be collected via an online survey. However, arrangements can be made for students to complete paper surveys if this is not possible. Each session will last approximately 45 minutes. The survey itself should take approximately 20 minutes. The researcher will use the remaining time to explain the study to students and gain their assent, to allocate student identification codes, to ensure that students can access the survey and to distribute debriefing forms. Information about the study will be provided to students and their assent will be sought before beginning the survey. Afterwards, participants will be given debriefing information and asked to indicate whether they would like to enter a prize draw to win a £20 Amazon voucher and/or to express interest in being interviewed for part two of the study.

After I have completed the survey phase of the research and completed some analysis of the data, I will contact the school again to ask for information and opt-in parental consent forms to be sent home with participants who have met the criteria for the interview phase of the research and have indicated that they would be interested in participating in this. This request will most likely be made just after the school summer holidays.

I will then liaise with the school to arrange a suitable time and room in the school to conduct interviews with a very small number of participants whose parents/carers have provided consent.

Individual semi-structured interviews, of approximately 30 to 45 minutes, will then be conducted during normal hours. Before the interviews, students will be provided with further information about the study and their assent will be sought. Participants will be assured that there are no right/wrong responses, that they may pause or withdraw at any time (and up to 5 working days after the study) and skip any disliked questions. During the interview, they will be asked questions about how they feel about school, their goals, their standards for performance and how they cope with challenges. An audio-recorder will be used to record interviews. Afterwards, they will be given debriefing information and a £20 Amazon voucher for participation.

#### Are there any benefits in the school taking part?

The school will receive a summary of the results of the study. The research may help to improve researchers' understanding of perfectionism and well-being and provide insights into how school staff and other professionals can support individuals displaying characteristics of maladaptive perfectionism.

#### Are there any risks involved?

There are few risks in this study. However, there is a chance that the topics being explored may induce some uncomfortable emotions in some participants. To minimise this risk, participants will be informed that they may end the survey or interview at any time. Following participation in the survey (and the interview for those recruited for this

phase), students will be provided with debriefing information which will signpost them to support services which can be accessed should they experience any negative feelings following participation. Students will be provided with the name of a staff member who they can speak with about any issues and will also be reminded that they can speak with other trusted adults at school or a parent/carer. If I feel that any student is exhibiting signs of distress during the survey and/or interview, they will be encouraged to stop participation and be made aware of the sources of support outlined in the debriefing information. I will also make a relevant member of school staff aware of any students whose survey scores or interview responses suggest that their well-being is a cause for concern so that they may follow this up according to the school's policy. Should any safeguarding concerns arise during the research, I will report these to the school's Designated Safeguarding Lead directly so that they can follow these up according to the school's safeguarding policy. I have undergone an enhanced DBS check.

#### What data will be collected and how will this be stored?

The survey will collect participants' responses to the perfectionism and well-being/flourishing questionnaires and some demographic information. Schools will also be asked to provide some additional achievement related data (predicted or current grades across a range of subjects). Information will be collected on students' age, year-group, sex, grades and ethnicity so that the sample of participants can be described. Please note that information on ethnicity is classed as special category data according to data protection. Information on students' age, year-group, grades and sex will also be collected to investigate whether the study results differ on these variables.

Each participant will be allocated a unique identification code and school code which they will need to enter onto their online/paper survey. Thus, all data that I take with me off the school premises will be anonymised. I will use these codes when liaising with the school contact so that the school can identify students who are to be invited to interviews, who have won Amazon vouchers, whose survey or interview responses indicate that they are at risk or who have requested their data to be excluded from the study. The list of names and codes will also be used so that school staff have a record of which pupils have participated so that they can receive summaries of the research findings. I will not take the list of unique identification codes and participant names out of the school. The school contact will be asked to store this in a locked cabinet in an office in the school so that it can only by accessed by them. They will be asked to destroy the list of unique identification codes and participant names when no further contact with participants is required.

Data collected on academic achievement will be entered onto a spreadsheet on password-protected computer along with pupils' unique identification codes while I am on the school premises.

If survey data is collected online, this will be done via the university's secure software for distributing online surveys. Data from the survey will be encrypted before it is stored in a database server in the university. This data will be stored on the server for 90 days before being deleted. After each day of data collection, I will download the data as a CSV file and import and save this on a main spreadsheet on a password-protected computer. Data collected through paper surveys will be entered onto this same spreadsheet. Only I will have access to this main spreadsheet. However, supervisors/ advisors from the university may be allowed to see this when assisting with data analysis.

Voice recordings will be uploaded to a password-protected computer the same day as the interview has taken place. The original recording will be deleted from the voice recorder as soon as it is uploaded. Interviews will be transcribed either by myself or by a secure transcription service recommended by the university. Identifying information will be removed from the transcripts and pseudonyms will be used to protect participants' identities. Participants will have been given the option of choosing a pseudonym during the interview process. After interviews have been transcribed, the audio-recordings will be permanently deleted. Only I will have access to the transcript data (saved on the password-protected computer). However, some transcripts and transcript excerpts (with names and identifying information removed) will be shared with my research supervisors during discussions around data analysis.

If any participant or parent/carer emails me within five days of participation to indicate that they want their or their child's data to be withdrawn from the research, their email will be permanently deleted so that no record of their email or address will be retained.

Hard copies of documents containing any additional information about participants (e.g. consent and assent forms) will be stored in a locked container in my house.

All consent forms, assent forms, transcripts and survey data will be destroyed 10 years after the research has been completed, in line with the university's research data management policy.

#### Will participation be confidential?

The school's involvement will be kept confidential – i.e. it will not be named in any subsequent write-up or dissemination of the research. Student's confidentiality cannot be guaranteed in the group survey data collection session, but all participants will be asked to respect each other's privacy and not to discuss the study outside of the research environment. Please see the above question for arrangements made to ensure that students' participation and information collected about them during the course of the research is kept confidential to the research team. Codes and pseudonyms will be used to reduce the risk that participants could be identified. It will be possible for me to link those participating in interviews with their survey data. However, this information will be kept confidential to the research team However, it should be noted that before participation, participants will be told that if I have any concerns about any student's well-being or safety based on their survey or interview responses, these will need to be raised with a relevant member of school staff.

Only members of the research team and responsible members of the University of Southampton may be given access to data about participants for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access to participants' data. All of these people have a duty to keep participants' information strictly confidential.

#### Does the school have to take part?

No, it is entirely up to you to decide whether your school will take part. If you agree to the research being conducted in your school, you will need to sign the attached consent form.

#### What happens if I change my mind?

You have the right to change your mind and withdraw your school's participation at any time before data collection begins in the school by emailing me.

Before completing the online survey, students will be informed that they can withdraw their participation and their data at any time during its completion by choosing not to submit the survey. After submitting the survey, they can withdraw their data up to five working days afterwards by emailing me. All of their data will then be destroyed. Before interviews, participants will be informed that they can withdraw their participation at any time during the interview process and the data collected for the interview phase will be destroyed. If, after completing the interview, a participant decides that they do not wish for their interview to be included in the study, they can email me up to five days after the interview and all of their data collected in the interview phase will be destroyed. If a participant wishes to end an interview early, they will be asked whether they wish to withdraw their data or have it included in the study. Parents/carers can also email me to request for their child's data to be withdrawn up to five working days after it has been collected.

#### What will happen to the results of the research?

The project will be written up into a thesis which will be available online. The project may be written up for a journal and published. Personal details will remain strictly confidential. Research findings made available in any reports or publications will not include information that can directly identify the school or participants.

#### Where can I get more information?

If you have any questions about the study or would like further information, please contact me at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a>. Alternatively, you can contact my supervisor, Dr <a href="mailto:Brettany Hartwell">Brettany Hartwell</a>, at <a href="mailto:b.hartwell@soton.ac.uk">b.hartwell@soton.ac.uk</a>.

#### What happens if there is a problem?

If you have a concern about any aspect of this study, you should contact me at L.M.Holmes@soton.ac.uk or my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk.

We will do our best to answer your questions.

If you remain unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, <a href="mailto:rgoinfo@soton.ac.uk">rgoinfo@soton.ac.uk</a>).

#### Thank you.

Thank you for taking the time to read the information sheet and considering your school's participation in the research.

## **Head Teacher Consent Form**

**Study title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

Researcher name: Lauren Holmes

ERGO number: 48076

Please initial the box(es) if you agree with the statement(s):

I have read and understood the information sheet (17/5/19 /version 2 of head teacher information sheet) and have had the opportunity to ask questions about the study.	
I agree for the study (both the survey and interviews) to take place in the school.	
I confirm that I am happy for the researcher to use opt-out consent forms to gain consent from parents/carers for their children to take part in the study.	
I understand that the school's participation is voluntary and I may withdraw its participation at any time before data collection for any reason without my rights being affected.	
I understand that the school and participants will not be directly identified in any reports of the research.	
Name of head teacher (print name)	
Signature of head teacher	
Date	
Name of researcher (print name)	
Signature of researcher	
Date	

[Please insert school header/headed paper if available]

[Please insert school address]
[Please insert date]

RE: A mixed methods study exploring perfectionism and flourishing in secondary school students (ERGO number: 48076)

Dear Research Integrity and Governance Team at the University of Southampton,

I confirm that I am happy to give gatekeeper approval *in principle* for the University of Southampton researcher, Lauren Holmes, to carry out this research within the school provided that the study has full ethical approval. Additionally, I confirm that I am happy for the researcher to use opt-out consent forms to gain consent from parents/carers for their children to take part in the study. I understand that the school's participation is voluntary and I may withdraw its participation at any time before data collection for any reason without my rights being affected.

Yours sincerely,
[Please insert signature]
[Please insert printed name and title]

# **Appendix E Parent/Carer Information Sheet and Opt**out Consent Form for Questionnaire



### Parent/Carer Information Sheet

**Study Title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

Researcher: Lauren Holmes ERGO number: 48076

Dear Sir/Madam,

I am a Trainee Educational Psychologist studying for the Doctorate in Educational Psychology at the University of Southampton. As part of the doctorate, I am conducting a thesis exploring perfectionism and flourishing (i.e. high well-being) in secondary school students. I am writing to you as I would like to invite your child to participate in my research.

Please carefully read the information below about the study before deciding whether you consent to your child's participation in the research. Please contact me if anything is unclear or you would like more information. If you **do not** want your child to participate, please sign the opt-out consent form at the end of this letter and return it to [named member of staff or school office] by  $_{-/-/--}$ .

Yours sincerely, Lauren Holmes, Trainee Educational Psychologist <u>L.M.Holmes@soton.ac.uk</u>

#### What is the research about?

Research suggests that there are different forms of perfectionism. Some perfectionists gain great satisfaction from setting high standards and striving to reach these. For these people, perfectionism may be helpful. Other perfectionists may never feel happy with their performance and experience frustration when they cannot reach their high standards. For these people, perfectionism may be less helpful.

The aim of this part of the study is to explore whether there are differences in well-being between students (in Years 9 and 10) displaying traits of different forms of perfectionism and non-perfectionism.

#### Why has my child been asked to participate?

You are receiving this letter because the school has agreed for the research to be carried out in the school and your child is in Year 9 or 10.

#### What will happen if my child takes part?

If you consent to your child's participation in the study, your child will be invited to complete a survey which includes demographic questions and two questionnaires (one measuring well-being/flourishing and another measuring perfectionism). The survey will be completed during a data collection session with groups of students during normal school hours. Students will either be asked to complete an online survey on a computer or

a paper version of this survey. The data collection session will last approximately 45 minutes. The survey itself should take approximately 20 minutes. The researcher will use the remaining time to explain the study to students and gain their assent, to allocate student identification codes, to ensure that students can access the survey and to distribute debriefing forms. Study information will be provided to your child and their assent to participate will be sought before beginning the survey. Afterwards, your child will be given debriefing information and asked to indicate whether they would like to enter a prize draw to win one of five £20 Amazon vouchers.

Your child will also be asked if they would be interested in being interviewed in another phase of the study taking place later in the year. If your child is selected to take part in an interview, you will receive a separate letter providing further information about this and your consent for your child's participation will be sought.

#### Are there any benefits in my child taking part?

There may be no direct benefit to your child. However, the research may help to develop understanding of how perfectionism relates to well-being. This may help researchers to think about how school staff and other professionals can support students whose perfectionism is posing a challenge to their well-being.

#### Are there any risks involved?

There are few risks in this study. However, as the questionnaires require students to reflect on their well-being and attitudes towards themselves and their performance, there is a small chance that some students may experience some uncomfortable emotions. To minimise this risk, your child will be informed that they may withdraw their survey participation at any time during its completion. After completing the survey, your child will be provided with debriefing information which will signpost them to support services which can be accessed should they experience any negative feelings following participation. Your child will be provided with the name of a staff member who they can speak with about any issues and will also be reminded that they can speak with other trusted adults at school or at home. If I feel that your child is exhibiting signs of distress during the survey, they will be encouraged to stop participation and be made aware of the sources of support outlined in the debriefing information. I will also make a relevant school staff member aware if your child's questionnaire scores are a cause for concern so that they may follow this up according to school policy. Should any safeguarding concerns arise during the research, I will report these to the school's Designated Safeguarding Lead directly so that they can follow these up according to the school's safeguarding policy. I have undergone an enhanced DBS check.

#### What data will be collected and how will this be stored?

The survey will collect students' responses to the perfectionism and well-being/flourishing questionnaires and some demographic information. Schools will also be asked to provide some additional achievement related data (actual or predicted grades across a range of subjects). Information will be collected on students' age, year-group, sex, grades and ethnicity so that the sample of students can be described. Please note that information on ethnicity is classed as special category data according to data protection. Information on students' age, year-group, grades and sex will also be collected to investigate whether the study results differ on these variables.

All of this data will be anonymised. Each student will be allocated a unique identification code and school code which they will need to enter onto their online/paper survey. I will use these codes when liaising with the school contact so that the school can identify students who are to be invited to interviews, who have won Amazon vouchers, whose survey scores are a cause for concern or who have requested for their data to be withdrawn. The list of names and codes will also be used so that school staff have a record of which pupils have participated so that they can receive summaries of the research findings. I will not take the list of unique identification codes and student names out of the school, so by itself, the data collected and taken away will not contain any means of identifying any individual pupil. The school contact will be asked to store this in a locked cabinet in an office in the school so that it can only by accessed by them. They

will not have access to the data collected by me. The school contact will be asked to destroy the list of unique identification codes and student names when no further contact with students is required.

Data collected on academic achievement will be entered onto a spreadsheet on password-protected computer along with pupils' unique identification codes while I am on the school premises.

If survey data is collected online, this will be done via the university's secure software for distributing online surveys. Data from the survey will be encrypted before it is stored in a database server in the university. This data will be stored on the server for 90 days before being deleted. After each day of data collection, I will download the data as a CSV file and import and save this on a main spreadsheet on a password-protected computer. Data collected through paper surveys will be entered onto this same spreadsheet. Only I will have access to this main spreadsheet. However, supervisors/ advisors from the university may be allowed to see this when assisting with data analysis.

Hard copies of students' assent forms will be stored in a locked container in my house.

All assent forms and survey data will be destroyed 10 years after the research has been completed, in line with the university's research data management policy.

#### Will my child's participation be confidential?

Confidentiality cannot be guaranteed in the survey group data collection session (as students will be able to see who else is taking part). However, all students will be asked to respect each other's privacy and to not discuss the study outside of the research environment. I will take the measures outlined in the above question to keep your child's participation and the information collected about them during the course of the research confidential so that it is not shared with anyone outside of the research team. Codes will be used to reduce the risk that your child could be identified. However, it should be noted that before participation, your child will be told that if I have any concerns about any student's well-being or safety based on their survey responses, these will need to be raised with a relevant member of school staff.

Only members of the research team and responsible members of the University of Southampton may be given access to data about participants for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access to participants' data. All of these people have a duty to keep participants' information strictly confidential, though since this data will be anonymised, they will not be able to identify any individual student from their contact with this data.

#### Does my child have to take part?

No, it is entirely up to you to decide whether your child will take part. If you **do not** agree to your child taking part, you will need to sign the attached opt-out form. Before taking part in the research, your child will also need to indicate that they are happy to participate by completing an assent form.

#### What happens if I change my mind?

You have the right to change your mind and withdraw your child's participation without any reason and without your rights being affected at any time before data collection begins and up to 5 working days after the survey has been completed by emailing me at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a>. Any data collected up to this point will be destroyed. Your email to me will then be permanently deleted so that no record of your email or address will be kept.

Before completing the survey, students will be informed that they can withdraw their participation and their data at any time during its completion by choosing not to submit the survey. After submitting the survey, they can withdraw their data up to 5 working

days afterwards by emailing me. All of their data will then be destroyed. Again, their email (with their email address) will then be deleted.

#### What will happen to the results of the research?

The project will be written up into a thesis which will be available online. The project may be written up for a journal and published. Personal details will remain strictly confidential. Research findings made available in any reports or publications will not include information that can directly identify your child.

#### Where can I get more information?

If you have any questions about the study or would like further information, please contact me at <u>L.M.Holmes@soton.ac.uk</u>. Alternatively, you can contact my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk.

#### What happens if there is a problem?

If you have a concern about any aspect of this study, please contact me at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a> or my supervisor, Dr Brettany Hartwell, at <a href="mailto:b.hartwell@soton.ac.uk">b.hartwell@soton.ac.uk</a>. We will do our best to answer your questions.

If you remain unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, <a href="mailto:rgoinfo@soton.ac.uk">rgoinfo@soton.ac.uk</a>).

#### **Data Protection Privacy Notice**

The University of Southampton conducts research to the highest standards of research integrity. If the survey contains personal data which could identify your child then:

- 1. The University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your child's information and using it properly.
- 2. The University of Southampton will keep identifiable information about you only for as long as it is necessary to verify and defend, when required, the process and outcomes of the research. Any link between your child and their information will be removed as quickly as is feasible, provided your research is not impacted as a result.
- 3. We will only use your child's data/information as set out in this Participant Information Sheet and in accordance with our Data Protection Policy and our Privacy Notice for Research Participants.
- 4. We will not do anything with your child's personal data that you would not reasonably expect."

If you have any questions about how your child's personal data is used, or wish to exercise any of your rights, please consult the University's data protection webpage where you can make a request using our online form. If you need further assistance, please contact the University's Data Protection Officer (data.protection@soton.ac.uk).

To reduce the risk of participants being identifiable, unique identification codes will be used instead of participant names. The list of participant codes and names will be securely stored in school and will only be accessed by the school contact. I will use these codes when liaising with the school contact so that the school can identify students who are to be invited to interviews, who have won Amazon vouchers or whose survey scores are a cause for concern. The list of names will also be used so that school staff have a record of which pupils have participated so that they can receive summaries of the research findings. The school contact will be asked to destroy the list of unique identification codes and participant names when no further contact with participants is required so that there will be no way of linking participants with their data.

It would still be possible for me to link students participating in the interviews with their data, however I will keep this information confidential.

#### Thank you.

Thank you for taking the time to read the information sheet and considering your child's participation in the research.



If you <u>do not</u> want your child to participate in this research study, please sign the opt-out consent form below and return it to [named member of staff or school office] by/
Parent/Carer Opt-out Consent Form
<b>Study title</b> : A mixed methods study exploring perfectionism and flourishing in secondary school students
Researcher name: Lauren Holmes ERGO number: 48076
I <b>do not</b> want my child to take part in this research study.
Name of child (print name)
Name of parent/carer (print name)
Signature of parent/carer

## Appendix F Parent/Carer Information Sheet and Optin Consent Form for Interview



### Parent/Carer Information Sheet for Interview

**Study Title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

Researcher: Lauren Holmes ERGO number: 48076

Dear Sir/Madam,

I am a Trainee Educational Psychologist studying for the Doctorate in Educational Psychology at the University of Southampton. As part of the doctorate, I am conducting a thesis exploring perfectionism and flourishing (i.e. high well-being) in secondary school students. This is a two-part study and, as you will be aware, your child has already participated in the first part of the research at school, which was a survey including questionnaires looking at well-being/flourishing and perfectionism and demographic questions. I am writing to you as I would like to invite your child to participate in an individual face-to-face interview.

Please carefully read the information below about the study before deciding whether you consent to your child's participation in the research. Please contact me if anything is unclear or you would like more information. If you are happy for your child to participate, you will be asked to sign the consent form at the end of this document and return it to [named staff member/school office] by  $_{-/-/--}$ .

Yours sincerely, Lauren Holmes, Trainee Educational Psychologist L.M.Holmes@soton.ac.uk

#### What is the research about?

Research suggests that there are different forms of perfectionism. Some perfectionists gain great satisfaction from setting high standards and striving to reach these. For these people, perfectionism may be helpful. Other perfectionists may never feel happy with their performance and experience frustration when they cannot reach their high standards. For these people, perfectionism may be less helpful.

The aim of this part of the study is to explore the views and experiences of students displaying a helpful form of perfectionism and high well-being (i.e. flourishing) regarding school and achievement.

#### Why has my child been asked to participate?

I am writing to you as at the end of the survey, your child indicated that they would be interested in participating in an interview. They also met the criteria for interviews (their survey results indicated that they possess traits of a helpful form of perfectionism and high well-being).

What will happen if my child takes part?

If you agree to your child taking part, they will be invited to an individual semi-structured interview with me. This interview will take place during school hours in a quiet room in the school. I will ask your child some questions about how they feel about school, their goals, their standards for performance and how they cope with challenges. The interview will last approximately 30 to 45 minutes. Before the interviews, your child will be provided with further information about the study and their assent will be sought. Your child will be assured that there are no right/wrong responses, that they may pause or withdraw at any time (and up to 5 working days after the study) and skip any disliked questions. An audio-recorder will be used to record interviews. Afterwards, they will be given debriefing information and a £20 Amazon voucher for participation.

#### Are there any benefits in my child taking part?

There may be no direct benefit to your child. However, the research may help to develop understanding of how some perfectionists can maintain high well-being. This may help researchers to think about how school staff and other professionals can support students whose perfectionism is posing a challenge to their well-being.

#### Are there any risks involved?

There are few risks in this study. However, as the interview questions require students to reflect on their well-being and attitudes towards themselves and their performance, there is a small chance that some students may experience some uncomfortable emotions. However, as the interview is an interactive process, if the interviewer feels that your child is becoming distressed at any point, they will ask them if they want to continue or use a different line of questioning. Prior to the interview, your child will also be informed that they can stop the interview at any point during its completion and choose to exclude their interview from the research.

Your child may feel uncomfortable about the presence of an audio recorder. I will explain to all students that this is being used so that I can ensure that I can accurately capture what they have said during the interview. If any student expresses a desire to hear how the recording of their voice will sound either before or after the interview, I will build in the capacity for them to listen to a short recording of their speech directly following this request. All students will be provided with visual communication aids which they can use to signal that they want to pause or stop the interview or skip any questions.

After completing the interview, students will be provided with debriefing information which will signpost them to sources of support which can be accessed should they experience any negative feelings following participation. Students will also be provided with the name of a staff member who they can speak with about any issues and will be reminded that they can speak with other trusted adults at school or at home.

Before interviews, the interviewer will explain to your child that they would need to disclose any information received if this leads them to worry that they might be at risk in some way. If I feel that any interview responses provided by your child indicate that their well-being is at risk, I will make a relevant member of school staff aware so that this may be followed up according to the school's policy. Should any safeguarding concerns arise during the research, I will report these to the school's Designated Safeguarding Lead directly so that these can be followed up according the school's safeguarding policy. I have undergone an enhanced DBS check.

#### What data will be collected and how will this be stored?

As you will be aware, demographic information including your child's age, year-group, sex, grades and ethnicity was collected during the online survey and therefore will not be collected again. However, I will ask the students to confirm their age in case they have had a birthday in the period between the two parts of the study. The demographic information will be used to describe the sample of students taking part in the interviews. Students' names will not be reported in the research so students will not be identifiable. Please be aware that information on ethnicity is classed as special category information according to data protection. All personal information is being stored on a spreadsheet on a password-protected computer and is only accessible to me.

Voice recordings from interviews will be uploaded to a password-protected computer the same day as the interview has taken place. The original recording will be deleted from the voice recorder as soon as it is uploaded. Interviews will be transcribed either by myself or by a transcription service recommended by the university. Identifying information will be removed from the transcripts and pseudonyms (fake names) will be used to protect students' identities. Your child will be given the option of choosing a pseudonym during the interview process. After interviews have been transcribed, the audio-recordings will be permanently deleted from the password-protected computer. Only I will have access to the data. However, some transcripts and transcript excerpts (with names and identifying information removed) will be shared with my research supervisors during discussions around data analysis.

Hard copies of documents containing any additional information about students (e.g. consent and assent forms) will be stored in a locked container in my house. All consent forms, assent forms, transcripts and survey data will be destroyed 10 years after the research has been completed, in line with the university's research data management policy.

#### Will my child's participation be confidential?

Your child's participation and the information collected about them during the course of the research will be kept strictly confidential. Please see the response to the above question for arrangements made to ensure that participation is confidential. Your child's responses may be quoted directly in reports of the research but a pseudonym will be used to protect their identity.

Only members of the research team and responsible members of the University of Southampton may be given access to data about participants for monitoring purposes and/or to carry out an audit of the study to ensure that the research is complying with applicable regulations. Individuals from regulatory authorities (people who check that we are carrying out the study correctly) may require access to participants' data. All these people have a duty to keep information strictly confidential. As the data will be anonymised, these individuals will not be able to identify your child.

#### Does my child have to take part?

No, it is entirely up to you to decide whether your child will take part. If you agree to your child taking part, you will need to sign the attached consent form. Before taking part, your child will also be asked to indicate whether they are happy to participate by completing an assent form. No data will be collected from the child unless both parent/carer consent and child assent are received.

## What happens if I change my mind?

You have the right to change your mind and withdraw your child's participation from the interview without any reason and without your rights being affected at any time before the interview and up to 5 working days after the interview has been completed emailing me. Any interview data collected up to this point will be destroyed. Your email to me will then be permanently deleted so that no record of your email or address will be kept.

Before the start of the interview, students will be informed that they can withdraw their participation and their interview data at any time during the interview. They can also withdraw their interview data up to 5 working days after the interview by emailing me at <a href="L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a>. All of their interview data will then be destroyed. Again, their email (with their email address) will then be deleted.

#### What will happen to the results of the research?

The project will be written up into a thesis which will be available online. The project may be written up for a journal and published. Personal details will remain strictly confidential. Research findings made available in any reports or publications will not include information that can directly identify your child.

#### Where can I get more information?

If you have any questions about the study or would like further information, please contact me at <u>L.M.Holmes@soton.ac.uk</u>. Alternatively, you can contact my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk.

# What happens if there is a problem?

If you have a concern about any aspect of this study, you should contact me at <u>L.M.Holmes@soton.ac.uk</u> or my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk.

We will do our best to answer your questions.

If you remain unhappy or have a complaint about any aspect of this study, please contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

#### **Data Protection Privacy Notice**

The University of Southampton conducts research to the highest standards of research integrity. As a publicly-funded organisation, the University has to ensure that it is in the public interest when we use personally-identifiable information about people who have agreed to take part in research. This means that when you agree and your child agree to take part in a research study, we will use information about your child in the ways needed, and for the purposes specified, to conduct and complete the research project. Under data protection law, 'Personal data' means any information that relates to and is capable of identifying a living individual. The University's data protection policy governing the use of personal data by the University can be found on its website (https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page).

This Information Sheet tells you what data will be collected for this project and whether this includes any personal data. Please ask the research team if you have any questions or are unclear what data is being collected about your child.

Our privacy notice for research participants provides more information on how the University of Southampton collects and uses your personal data when your child takes part in one of our research projects and can be found at <a href="http://www.southampton.ac.uk/assets/sharepoint/intranet/ls/Public/Research%20and%20">http://www.southampton.ac.uk/assets/sharepoint/intranet/ls/Public/Research%20and%20Integrity%20Privacy%20Notice/Privacy%20Notice%20for%20Research%20Participants.pdf</a>

Any personal data we collect in this study will be used only for the purposes of carrying out our research and will be handled according to the University's policies in line with data protection law. If any personal data is used from which your child can be identified directly, it will not be disclosed to anyone else without your consent unless the University of Southampton is required by law to disclose it.

Data protection law requires us to have a valid legal reason ('lawful basis') to process and use your child's Personal data. The lawful basis for processing personal information in this research study is for the performance of a task carried out in the public interest. Personal data collected for research will not be used for any other purpose.

For the purposes of data protection law, the University of Southampton is the 'Data Controller' for this study, which means that we are responsible for looking after your information and using it properly. The University of Southampton will keep information about your child for 10 years after the study has finished after which time any link between your child and their information will be removed.

To safeguard your and your child's rights, we will use the minimum personal data necessary to achieve our research study objectives. Your data protection rights – such as to access, change, or transfer such information - may be limited, however, in order for the research output to be reliable and accurate. The University will not do anything with your child's personal data that you would not reasonably expect.

If you have any questions about how your child's personal data is used, or wish to exercise any of your rights, please consult the University's data protection webpage

(https://www.southampton.ac.uk/legalservices/what-we-do/data-protection-and-foi.page) where you can make a request using our online form. If you need further assistance, please contact the University's Data Protection Officer (data.protection@soton.ac.uk).

To reduce the risk of participants being identifiable, the researcher will replace participant's names with pseudonyms, which may be chosen by participants. Any identifying information in the transcripts will also be removed. Only the researcher will be able to link participants with their interview and survey data. The researcher will keep this information confidential.

### Thank you.

Thank you for taking the time to read the information sheet and considering your child's participation in the research.



# **Parent/Carer Consent Form for Interview**

**Study title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

Researcher name: Lauren Holmes

ERGO number: 48076

Please initial the box(es) if you agree with the statement(s):	
I have read and understood the information sheet (17/5/19 /version 2 of parent/carer information sheet for interview) and have had the opportunity to ask questions about the study.	
I agree for my child to take part in this research project and agree for their data to be used for the purpose of this study.	
I understand my child's interview participation is voluntary and that I, or they, may withdraw at any time before data collection or up to 5 working days after data collection for any reason without their participation rights being affected.	
I understand that my child taking part in the study involves audio recording which will be transcribed and then destroyed for the purposes set out in the participation information sheet.	
I understand that my child's responses may be quoted directly in reports of the research but that they will not be directly identified (their name will not be used).	
I understand that personal information collected about my child will be kept confidential and that data will be anonymised to reduce the risk that my child could be identified.	
I understand that special category information (ethnicity) previously collected as part of the online survey that my child has completed will be used to describe the sample of interview participants.	

Name of child (print name)
Name of parent/carer (print name)
Signature of parent/carer
Date
Date
Name of researcher (print name)
signature of researcher
Date

I have spoken to my child about the study and they agree with my decision

to give permission for them to participate.

# **Appendix G Perfectionism Measure**

Adapted version of the APS-R (Slaney et al., 1996; Slaney et al., 2001). The Order subscale was excluded.

#### Instructions

The following statements are designed to measure people's attitudes toward themselves, their performance, and others. There is no right or wrong answer to any.

Respond to each with your first impression using the scale below to describe your degree of agreement with each.

Don't spend too much time on individual statements when responding. When completed, refer to the scoring instructions on the sheet that follows.

1	2	3	4	5	6	7
Strongly		Slightly		Agree		Strongly
Disagree	Disagree	Disagree	Neutral	Slightly	Agree	Agree

- 1. I have high standards for my performance at work or at school.
- 2. I often feel frustrated because I can't meet my goals.
- 3. If you don't expect much out of yourself, you will never succeed.
- 4. My best just never seems to be good enough for me.
- 5. I have high expectations of myself.
- 6. I rarely live up to my high standards.
- 7. Doing my best never seems to be enough.
- 8. I set very high standards for myself.
- 9. I am never satisfied with my accomplishments.
- 10. I expect the best from myself.
- 11. I often worry about not measuring up to my own expectations.
- 12. My performance rarely measures up to my standards.
- 13. I am not satisfied even when I know I have done my best.
- 14. I try to do my best at everything I do.

- 15. I am seldom able to meet my own high standards of performance.
- 16. I am hardly ever satisfied with my performance.
- 17. I hardly ever feel that what I've done is good enough.
- 18. I have a strong need to strive for excellence.
- 19. I often feel disappointment after completing a task because I know I could have done better.

## **Scoring:**

Standards subscale: Total scores for items numbered 1, 3, 5, 8, 10, 14, 18. Maximum score is 49.

Discrepancy subscale: Total scores for items numbered 2, 4, 6, 7, 9, 11, 12, 13, 15, 16, 17, 19. Maximum score is 8

# Appendix H Well-being and Flourishing Measure

MHC-SF (Keyes, 2005). Questionnaire and scoring information were retrieved from Keyes (2009).

Adolescent MHC-SF (ages 12 to 18)

Please answer the following questions are about how you have been feeling during the past month. Place a check mark in the box that best represents how often you have experienced or felt the following:

During the past month, how often did you feel	NEVER	ONCE OR TWICE	ABOUT ONCE A WEEK	2 OR 3 TIMES A WEEK	ALMOST EVERY DAY	EVERY DAY
1. happy						
2. interested in life						
3. satisfied						
4. that you had something important to contribute to society						
5. that you belonged to a community (like a social group, your school, or your neighborhood)						
6. that our society is becoming a better place for people like you						
7. that people are basically good						
8. that the way our society works made sense to you						
9. that you liked most parts of your personality						
10. good at managing the responsibilities of your daily life						
11. that you had warm and trusting relationships with other children						
12. that you had experiences that challenged you to grow and become a better person						
13. confident to think or express your own ideas and opinions						
14. that your life has a sense of direction or meaning to it						

#### The Mental Health Continuum-Short Form (MHC-SF) Scoring

Continuous Scoring: Sum, 0-70 range (use 10 point categories if desired).

Categorical Diagnosis: a diagnosis of flourishing is made if someone feels 1 of the 3 hedonic well-being symptoms (items 1-3) "every day" or "almost every day" and feels 6 of the 11 positive functioning symptoms (items 4-14) "every day" or "almost every day" in the past month or past two weeks. Languishing is the diagnosis when someone feels 1 of the 3 hedonic well-being symptoms (items 1-3) "never" or "once or twice" and feels 6 of the 11 positive functioning symptoms (items 4-8 are indicators of Social well-being and 9-14 are indicators of Psychological well-being) "never" or "once or twice" in the past month or past two weeks. Individuals who are neither "languishing" nor "flourishing" are then coded as "moderately mentally healthy."

#### Symptom Clusters and Dimensions:

Cluster 1; Items 1-3 = *Hedonic*, Emotional Well-Being Cluster 2; Items 4-8 = *Eudaimonic*, Social Well-Being

Item 4 = Social Contribution

Item 5 = Social Integration

Item 6 = Social Actualization (i.e., Social Growth)

Item 7 = Social Acceptance

Item 8 = Social Coherence (i.e., Social Interest)

Cluster 3; Items 9-14 = *Eudaimonic*, Psychological Well-Being

Item 9 = Self Acceptance

Item 10 = Environmental Mastery

Item 11 = Positive Relations with Others

Item 12 = Personal Growth

Item 13 = Autonomy

Item 14 = Purpose in Life

# **Appendix I Interview Schedule**

#### Introduction

The researcher will run through the assent form:

- Introductions
- Explain the purpose of the research
- Explain right to withdraw, confidentiality, audio-recording and visual aids (no right/wrong answers, pass card, stop card)
- Give participant opportunity to ask questions
- Obtain participant's assent

General prompts which will be used during the interviews: Why/why not? Can you give an example? What do you mean by that? Can you tell me more about that?

# Standards and perfectionism

- As you know, my study is looking at perfectionism. Perfectionism has been defined as
  involving "high standards of performance which are accompanied by tendencies for
  overly critical evaluations of one's own behaviour". Does this definition fit with how
  you see yourself or how others would describe you?
- This is just one definition of perfectionism from the research. How would you describe someone who is a perfectionist? How much is this like you?
- How do you feel about being a perfectionist/ not being a perfectionist? Are there any advantages or disadvantages to this?
- How important is it to you to achieve high standards in school? Why do you feel this is important/ not important?

If it is important, ask:

- o What does striving to achieve standards bring you?
- o What drives you to try to achieve high standards?
- o In what areas of school life do you have high standards?
- How do you feel about your standards? Are there any advantages or disadvantages?

#### Setbacks

- Can you tell me about a time when you did not do as well as you wanted to in something in school?
- Can you remember how you reacted to this at the time, thinking about your thoughts, feelings and behavior?
- Why did you feel that you didn't meet these expectations at the time?
- Do you feel that you have overcome this setback or is it still affecting you?
- Were there any things that helped you to overcome/manage this setback (this could be anything, including personal strengths, other people, things you or others did)? How did these things help?

• Do you think that this experience had any impact on you (either positive, negative or both)? If so, how?

## Challenges (only ask if the student can think of a different example to the one used for 'setbacks')

- Can you tell me about a time when you were finding something very challenging in school?
- Can you remember how you reacted to this at the time, thinking about your thoughts, feelings and behavior?
- Why do you think that you found this thing challenging at the time?
- Do you feel that you have overcome this challenge or is it still affecting you?
- Were there any things that helped you to overcome/manage this challenge (this could be anything, including personal strengths, other people, things you or others did)? How did these things help?
- Do you think that this experience had any impact on you (either positive, negative or both)? If so, how?

## Well-being

- In my study, I am also interested in well-being, which has been defined as 'feeling good and functioning effectively'. Are there any things that help you to feel good or function effectively in school (this could include things outside of school)?
- How do these things help?

#### <u>Stress</u>

- How much are you affected by stress in school?
- Are there any things that can cause you to feel stressed in school?
- How good do you feel you are at dealing with stress?
- Are there any things that help you to manage stress?
- Possible probes: Can you tell me about a time when you felt stressed? How did this affect you? Did you do anything to help you to cope with this?

## Opportunities and blessings

- Do you feel that you have had any opportunities or blessings in your life that have helped you to get where you are today?
- How have these helped?

## **Ending**

- Is there anything else that you would like to add?
- Provide debriefing form and ask if participant has any further questions about the research.

# **Appendix J Picture Cards Used in Interviews**

Participants could use the 'next' card to indicate that they wished to skip a question and the 'stop' card if they wished to pause or end the interview. The 'no right or wrong' answers card served as a visual reminder of this principle.





# **Appendix K Ethics Approval**

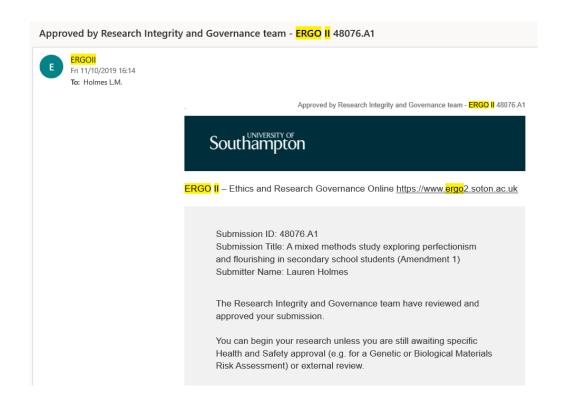
ERGO II – Ethics and Research Governance Online <a href="https://www.ergo">https://www.ergo</a>2.soton.ac.uk

Submission ID: 48076

Submission Title: A mixed methods study exploring perfectionism and flourishing in secondary school students
Submitter Name: Lauren Holmes

The Research Integrity and Governance team have reviewed and approved your submission.

You can begin your research unless you are still awaiting specific Health and Safety approval (e.g. for a Genetic or Biological Materials Risk Assessment) or external review.



# **Appendix L Participant Debriefing Information for Questionnaire**

# Southampton

Title of project: A mixed methods study exploring perfectionism and flourishing in

secondary school students

**Debriefing Statement** (written) (Version 2, 17/5/19)

**ERGO ID: 48076** 



Thank you very much for taking part in this study. The aim of this research was to explore whether there are differences in well-being between students displaying traits of different types of perfectionism and non-perfectionism. It is expected that individuals displaying traits of a more helpful form of perfectionism will have higher well-being than those displaying traits of a more unhelpful form of perfectionism. The information that you provided will help people to understand the relationship between well-being and perfectionism. This may help school staff and other professionals to support students whose perfectionism is posing a challenge to their well-being.

Once again, your information will be kept confidential (unless I feel that you or others are at risk) and reports of the results of this study will not include your real name or any other information which could identify you. If you would like to withdraw your survey responses from the study, you can do so by emailing me at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a> within five working days. In this case, your data will be removed and your email (along with your email address) will then be deleted.

Once the study is completed, you can receive a summary of the findings to take home if you wish. I will ask [name of school contact] to let you know when it is available. I won't be finished the study until next year though so don't worry if you don't hear anything for a while.

If after taking part in this survey, you feel upset, worried or uncomfortable about anything, please speak with [named school staff member]. Remember that you can also speak with another adult that you trust at school or a parent/carer at home. You can also access help using the support services listed below:

Childline: <a href="https://www.childline.org.uk/">https://www.childline.org.uk/</a> or 0800 1111
The Mix: <a href="https://www.themix.org.uk/">https://www.themix.org.uk/</a> or 0808 808 4994

If you have indicated that you would like to take part in the prize draw for the Amazon vouchers, your unique identification code will be entered into a random draw. If your number is selected, the researcher will contact the school's link person so that they can give you the voucher.

If you have indicated that you would be interested in taking part in a face-to-face interview and your survey responses are of particular interest to me, I may ask the school's link person to provide your parents/carers with further information about this. If they agree to you taking part, you will be invited to an interview. In the end, it will be up to you to decide whether to take part or not.

Do you have any other questions about the research? If you think of any further questions please contact me, Lauren Holmes, at <u>L.M.Holmes@soton.ac.uk</u>. You can also contact my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk.

Thank you again for taking part in this study.		
Signature	Date	
Lauren Holmes		

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk).

# Appendix M Participant Debriefing Information for Interview

# Southampton

**Title of project:** A mixed methods study exploring perfectionism and flourishing in secondary school students

**Debriefing Statement** (written and verbal – the researcher will read the statement to the participant and the participant will also be provided with a copy to take home) (Version 2, 17/5/19)

**ERGO ID:** 48076

Thank you very much for taking part in this study. The aim of this part of the research was to explore the views and experiences of students demonstrating traits of a helpful form of perfectionism and flourishing (i.e. high well-being) regarding school and achievement. The information that you provided will help researchers to understand your views and experiences of school and achievement and what helps you to feel good. This may help school staff and other professionals to support students whose perfectionism is posing a challenge to their well-being.

Once again, the results of this study will not include your real name or any other information which could identify you. If you haven't already chosen a fake name, you can choose one now or I can choose one for you if you prefer. If you would like to withdraw your interview from the study, you can do so by emailing me at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a> within five working days. In this case, your data will be removed and your email (along with your email address) will then be deleted.

Once the study is completed, you can receive a summary of the findings to take home if you wish. I will ask [name of school contact] to let you know when it is available. I won't be finished the study until next year though so don't worry if you don't hear anything for a while.

It is important that you feel comfortable after this interview. If after taking part, you feel upset, worried or uncomfortable about anything, please speak with [named school staff member]. Remember that you can also speak with another adult that you trust at school or a parent/carer at home. You can also access help using the support services listed below:

Childline: <a href="https://www.childline.org.uk/">https://www.childline.org.uk/</a> or 0800 1111
The Mix: <a href="https://www.themix.org.uk/">https://www.themix.org.uk/</a> or 0808 808 4994

Do you have any other questions about the research? If you think of any further questions please contact me, Lauren Holmes, at <a href="mailto:L.M.Holmes@soton.ac.uk">L.M.Holmes@soton.ac.uk</a>. You can also contact my supervisor, Dr Brettany Hartwell, at b.hartwell@soton.ac.uk. Thank you again for your participation in this research.

Signature	Date	
Lauren Holmes		

If you have questions about your rights as a participant in this research, or if you feel that you have been placed at risk, you may contact the University of Southampton Research Integrity and Governance Manager (023 8059 5058, rgoinfo@soton.ac.uk)

# Appendix N Questionnaire

Survey - Paper version (Version 2, Date: 17/5/19, ERGO number: 48076)

# Exploring perfectionism and well-being in secondary school students

This survey aims to gather information about students' well-being and perfectionist traits. It contains four sections. In the first section, you will be asked to give some basic information about yourself. You will then be asked to fill in two questionnaires, one about your well-being and another about your attitudes towards yourself and your standards for performance. In the final section, you will be asked to indicate whether you would like to enter into the draw to win a £20 Amazon voucher and/or if you would be interested in participating in an interview.

Please let the researcher know if you have any questions or need any help with reading or understanding any of the survey questions. Please answer all questions and try to answer as honestly as you can.

The survey should take around 20 minutes to complete. Please let the researcher know when you are finished so that she can give you a debriefing form.

# **Section 1. About You**

1.	Please carefully and clearly write the <b>p</b> been given here.	ersonal identification (ID) code that you have
2.	Please carefully and clearly write the <b>s</b> been given here.	chool identification (ID) code that you have
3.	How old are you (in years)?	
4.	What year group are you in? Please tid	ck your response.
	O Year 9	
	O Year 10	
5.	What is your sex? Please tick your resp	oonse.
	O Female	
	O Male	
	Other	
6.	What is your ethnic group? Please tick	your response.
a) V	Vhite	d) Black/African/Caribbean/Black British
0	Welsh/English/Scottish/Northern Irish/British	OAfrican
0	Irish	O Caribbean
0	Gypsy or Irish Traveller	O Any other Black/African/Caribbean background
0	Any other White background	e) Other ethnic group
b) N	Mixed/Multiple ethnic groups	O Arab
0	White and Black Caribbean	O Any other ethnic group, please describe
0	White and Black African	O Do not state
0	White and Asian	
0	Any other Mixed/Multiple ethnic background	
c) A	Asian/Asian British	
0	Indian	
0	Pakistani	
0	Bangladeshi	
	Chinese	
0	Any other Asian background	

# Section 2. Well-being

Please answer the following questions which are about how you have been feeling during the past month. Tick the circle beneath the answer that best represents how often you have experienced or felt the following:

# During the past month, how often did you feel...

# 1. happy

Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
0	0	0	0	0	0

## 2. interested in life

Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
0	0	0	0	0	0

## 3. satisfied with life

Ne	ver	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
(	)	0	0	0	0	0

4. that you had something important to contribute to society

Novor	Once or twice		2 or 3 times a		Every dev
Never	Office of twice	week	week	day	Every day
	0	0	0	O	O

5. that you belonged to a community (like a social group, your school, or your neighbourhood)

Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
0	0	0	0	0	0

6.	that our s	people like y	ou			
	Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
	0	0	0	0	0	0
7.	that peop	le are basica	lly good			
	Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
	$\circ$	0	0	$\circ$	0	0
8.	that the w	ay our societ	•	de sense to	you Almost every	
	Never	Once or twice	week	week	day	Every day
	<u> </u>	0	0			
		0	0	0	0	
9.	Ţ	iked most par	rts of your po	a 2 or 3 times	a Almost every	
9.	Never	Once or twice	About once e week		a Almost every	Every day
9.	Ţ		rts of your po	a 2 or 3 times	a Almost every	
	Never		About once e week	a 2 or 3 times week	a Almost every day	
	Never	Once or twic	About once e week	a 2 or 3 times week	a Almost every day	
	Never  O  . good at r	Once or twic	About once e week  responsibility  About once a	a 2 or 3 times week  o  ities of your of 2 or 3 times a	a Almost every day  O  daily life  Almost every	Every day
10	Never O  Never O	Once or twic	About once e week  responsibility About once a week	a 2 or 3 times week  ities of your of 2 or 3 times a week  output  ationships w	a Almost every day  C  daily life  Almost every day  C  ith others	Every day
10	Never O  Never O	Once or twice	About once e week  responsibili  About once a week	a 2 or 3 times week  ities of your of 2 or 3 times a week	a Almost every day  Claily life  Almost every day  C	Every day
10	Never O  Never O  that you h	Once or twice Once or twice Once or twice	About once e week  responsibility  About once a week  trusting rel  About once a	a 2 or 3 times week  ities of your of 2 or 3 times a week  o  ationships w 2 or 3 times a	a Almost every day  Claily life Almost every day Claith others Almost every	Every day  Every day

12.that you had experience	s that	t challenged	you to	grow	and	become	а	better
person								

Never	Once or twice	About once a week	2 or 3 times a week	Almost every day	Every day
0	0	0	0	0	0

# 13. confident to think or express your own ideas and opinions

		About once a 2 or 3 times		Almost every	
Never	Once or twice	week	week	day	Every day
0	0	0	0	0	0

# 14. that your life has a sense of direction or meaning to it

		About once a	2 or 3 times a	2 or 3 times a Almost every	
Never	Once or twice	week	week	day	Every day
0	0	0	0	0	0

# Section 3. Perfectionism

The following items are designed to measure attitudes people have toward themselves, their performance, and toward others. There are no right or wrong answers. Please respond to all of the items. Use your first impression and do not spend too much time on individual items when responding.

Respond to each of the items using the scale below to describe your degree of agreement with each item. Tick the appropriate rating for each item.

1.	I have high	standards f	or my perf	ormance at	work or at school
----	-------------	-------------	------------	------------	-------------------

Strongly		Slightly		Slightly		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	0	0	0	0	0	0

## 2. I often feel frustrated because I can't meet my goals

Strongly		Slightly		Slightly	Slightly		
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree	
0	0	0	0	0	0	0	

# 3. If you don't expect much out of yourself, you will never succeed.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
0	0	0	0	0	0	0

# 4. My best just never seems to be good enough for me.

Strongly		Slightly	Slightly		Slightly		
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree	
0	0	0	0	0	0	0	

# 5. I have high expectations for myself.

Strongly	Strongly		Slightly		Slightly	
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	0	0	0	0	0	0

6	l raraly li	vo un to m	y high stand	dorde			Apj
0.	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
	0	0	0	0	0	0	0
7.	Doing m	y best neve	er seems to	be enougl	h.		
	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
Ī	0	0	0	0	0	0	0
8.	I set ver	y high stan	dards for m	yself.			
	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
	0	0	0	0	0	0	0
9.	I am nev Strongly Disagree	er satisfied Disagree	I with my ac Slightly Disagree	ccomplishn Neutral	nents. Slightly Agree	Agree	Strongly Agree
	0	0	0	0	0	0	0
10	). I expect Strongly Disagree	the best fr	om myself. Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
	0	0	0	0	0	0	0
11	I. I often v	vorry about	not measu	ring up to ı	my own exp	pectations.	
	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree

. My perf						
Strongly		Slightly		Slightly		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	0	0	0	0	0	0
. I am no	t satisfied e	even when I	know I ha	ve done my	best.	
Strongly		Slightly		Slightly		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	0	0	0	0	0	0
. I try to d	do my best	at everythir	ng I do.			
Strongly		Slightly		Slightly		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	O ldom able t	o meet my	O own high s	O tandards of	o f performa	nce.
. I am se	ldom able t	o meet my	own high s	tandards of	f performa	nce. Strongly
. I am sel	ldom able t Disagree	o meet my Slightly Disagree	own high s Neutral	tandards of Slightly Agree	f performa Agree	nce. Strongly Agree
. I am se	ldom able t	o meet my	own high s	tandards of	f performa	nce. Strongly
O I am sel	ldom able t  Disagree	o meet my Slightly Disagree	own high s Neutral	standards of Slightly Agree	f performa Agree	nce. Strongly Agree
O  I am se  Strongly  Disagree  O	ldom able t  Disagree	o meet my Slightly Disagree  O atisfied with	own high s Neutral	standards of Slightly Agree  O mance.	f performa Agree	nce. Strongly Agree
O I am sel	ldom able t  Disagree	o meet my Slightly Disagree	own high s Neutral	standards of Slightly Agree	f performa Agree	nce. Strongly Agree
O  I am se  Strongly  Disagree  O  I am ha  Strongly	ldom able t  Disagree  O  rdly ever sa	o meet my Slightly Disagree  O atisfied with Slightly	own high s  Neutral  O  my perfore	standards of Slightly Agree  O mance. Slightly	Agree	Strongly Agree
O  I am se  Strongly  Disagree  O  I am ha  Strongly  Disagree	ldom able t  Disagree  O  rdly ever sa	o meet my Slightly Disagree  O atisfied with Slightly Disagree	own high s  Neutral   my perform  Neutral	Slightly Agree  O  mance. Slightly Agree	Agree Agree	Strongly Agree  Strongly Agree
O I am sel Strongly Disagree O Strongly Disagree O	Disagree  O  rdly ever sa  Disagree	o meet my Slightly Disagree  O atisfied with Slightly Disagree	own high s  Neutral	standards of Slightly Agree  O mance. Slightly Agree	Agree Agree	Strongly Agree  Strongly  Agree
O  I am se Strongly Disagree O  I am ha Strongly Disagree O	Disagree  O  rdly ever sa  Disagree	o meet my Slightly Disagree  O atisfied with Slightly Disagree  O nat what I've	own high s  Neutral	standards of Slightly Agree O mance. Slightly Agree O	Agree Agree	Strongly Agree  Strongly Agree
O I am sel Strongly Disagree O Strongly Disagree O	Disagree  O  rdly ever sa  Disagree	o meet my Slightly Disagree  O atisfied with Slightly Disagree	own high s  Neutral	standards of Slightly Agree  O mance. Slightly Agree	Agree Agree	Strongly Agree  Strongly  Agree

18. I have a strong need to strive for excellence.

Strongly		Slightly		Slightly		Strongly	
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree	
0	0	0	0	0	0	0	

19. I often feel disappointment after completing a task because I know I could have done better.

Strongly		Slightly		Slightly		Strongly
Disagree	Disagree	Disagree	Neutral	Agree	Agree	Agree
0	0	0	0	0	0	0

# Section 4. A few final questions...

1.	Would you like to enter into a draw to win one of five £20 Amazon vouchers?						
	O Yes						
	O No	·					
2.	students a who are in Would you	t stage of the research, the researcher would like to interview some about their views and experiences of school and achievement. Those nterviewed will receive a £20 Amazon voucher for their participation. u be interested in taking part in an individual face-to-face interview esearcher?					
	O Yes						
	O No						

Thank you for taking this survey.

# **Appendix O Participant Information Sheet and Assent Form for Questionnaire**



# Participant Information Sheet and Assent Form for Survey

**Study Title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

**Researcher**: Lauren Holmes **ERGO number**: 48076

Hello,

My name is Lauren and I am a psychology student at the University of Southampton. I am inviting you to participate in a research project that I am doing on perfectionism and well-being.

#### What is the research about?

Perfectionism is about setting and trying to achieve extremely high standards. Some people consider themselves to be perfectionists and others do not. There are also different types of perfectionism. Some perfectionists gain great satisfaction from setting high standards and striving to reach these. For these people, perfectionism may be helpful. Other perfectionists may never feel happy with their performance and experience frustration when they cannot reach their high standards. For these people, perfectionism may be less helpful.

This is a two-part study. The aim of this first part of the study is to explore whether there are differences in well-being between students displaying traits of different types of perfectionism and non-perfectionism.

## Why have I been asked to take part?

You are being asked to take part because you are in Year 9 or 10 and my study is focussing on students in these years.

## What will happen?

If you are happy to take part, you will be asked to fill in a survey lasting around 20 minutes. You will first be asked to give some basic information about yourself. You will then be asked to fill in two questionnaires, one about your attitudes towards yourself

and your standards for performance and one about your well-being. I can help you with reading questions or explaining anything that you do not understand. Please try to be as honest as you can when answering questions as there are no right or wrong answers. If you agree to take part, I will also ask school staff to provide me with information about your school grades.

At the end of the survey, you will be asked to indicate whether you would like to enter a draw to win one of five £20 Amazon vouchers. You will also be asked to indicate whether you would be interested in participating in the second part of the study, which is an individual face-to-face interview with me. I will only be interviewing a small number of students whose scores are of particular interest to me so please do not worry if you do not hear from me.

## What if I change my mind?

At any point during the survey, you can decide not to take part and to return to class by telling me or, if doing the survey online, closing the survey webpage before submitting it. In this case, you do not need to give a reason for why you are leaving, and your answers will not be included in the study. You can also withdraw your answers after submitting the survey by emailing me within five working days of taking part. I will provide you with my email address at the end of the study.

# Will anyone know my answers?

Confidentiality cannot be guaranteed in a group data collection session like this one (as you can see which other students are participating), but you are asked to respect each other's privacy and to not discuss the study with each other after you have taken part. However, if you agree to take part, I will take measures to keep your information safe. The answers that you provide (and information about your school grades) will be stored securely and treated confidentially, which means that that your information will not be shared with anyone outside of the research team. To reduce the chance that anyone could find out what answers you gave, you will be asked to enter a unique identification code and a school code on the survey instead of writing your name and school. The school will keep the list of your names and codes in a secure place in school so that I have a way of identifying participants for interviews, those who are at risk and those who have requested their information to be withdrawn. I will also use these so that Amazon vouchers and summaries of the findings of the research can be given out. After all these things have been done, the list of names and codes will be destroyed. The only scenario where I would not be able to keep your responses confidential is if your questionnaire scores caused me to really worry about your well-being. In this case, I would need to tell a member of school staff. Also, if I have any other reason to believe that you or others are at risk, I will need to tell a member of school staff so that you are safe.

I will be writing a report of my research after I have finished the study. This will not include any information which could identify you, including your name. You can receive a summary of the research findings if you wish.

Do you have any questions for me?

Would you like to take part in the study?

Yes

No

Please write your name here:

Please write the date here:

# **Appendix P Participant Information Sheet and Assent Form for Interview**



# Participant Information Sheet and Assent Form for Interview

**Study Title**: A mixed methods study exploring perfectionism and flourishing in secondary school students

**Researcher**: Lauren Holmes **ERGO number**: 48076

Hello,

My name is Lauren and I am a psychology student at the University of Southampton. You may remember recently taking part in a survey for my research project looking at perfectionism and well-being.

I am now inviting you to participate in the second part of my study, an individual face-to-face interview.

## Why have I been asked to take part?

You have been approached to take part as you indicated at the end of the survey that you would be interested in participating in an interview. Your survey results also suggested that you display traits of a helpful form of perfectionism and high well-being.

## What will happen if I take part?

If you agree to be interviewed, I am interested in finding out your views and experiences about school and achievement. I will ask some questions about how you feel about school, your goals, your standards for performance and how you cope with

challenges. Do not worry if you do not feel that your survey results fit with how you see yourself. There are no right or wrong answers and it is important to be as honest as you can. At the end of the interview, you will receive a £20 Amazon voucher to thank you for taking part.



# What if I don't want to answer a question or if I change my mind about taking part?

If you can't or don't want to answer a particular question, you can point to the next card and I will move on. You can also choose to take a break or go back to your classroom at any point by letting me know or by showing me the stop sign card. If you decide to end the interview early, you can choose whether to still have your interview included in the research or not. If, after completing the interview, you decide that you want to exclude your interview from the study, you can do so by emailing me within five working days. I will provide you with my email address at the end of the interview.



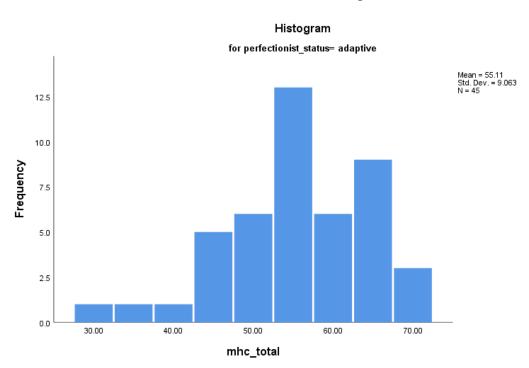
## Will anyone know what I have said?

If you are happy to take part, I will record the interview with an audio-recorder so that I can remember and accurately record what you have said. I will be deleting the recording as soon as I have typed up our conversations, and I will change your name so that in reports of the research, no-one will know what you have said or that you took part in the study. You can even choose a fake name if you like. What you say will be kept between us, however if you tell me something that makes me feel that your well-being may be at risk or that you or somebody else might be in danger, I would have to tell a member of school staff.

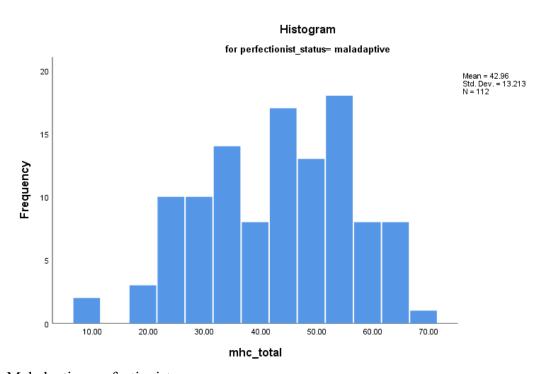
Do you have any questions for me?			
Would you like to take part in the study?			
Yes	No	<b>(%)</b>	
Please write your name here:			
Please write the date here:			

# **Appendix Q Histograms**

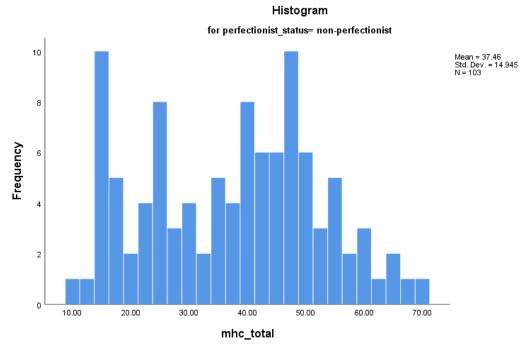
# Total Well-being



Adaptive perfectionists

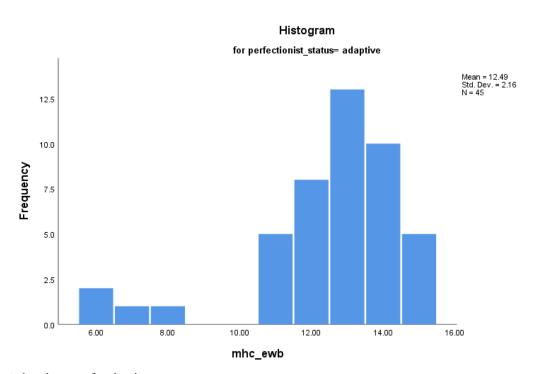


Maladaptive perfectionists

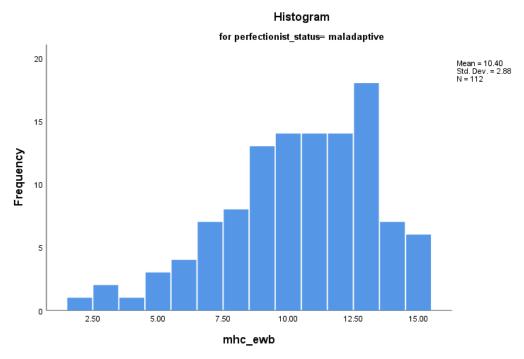


Non-perfectionists

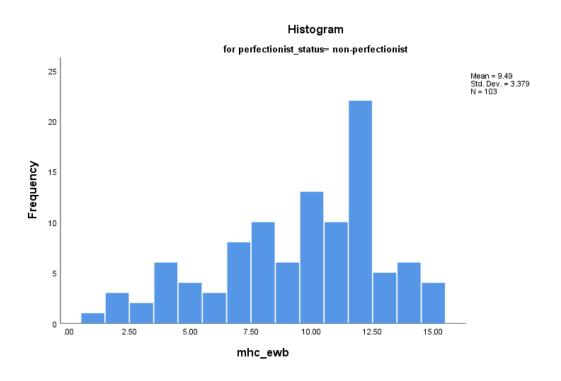
# **Emotional Well-being**



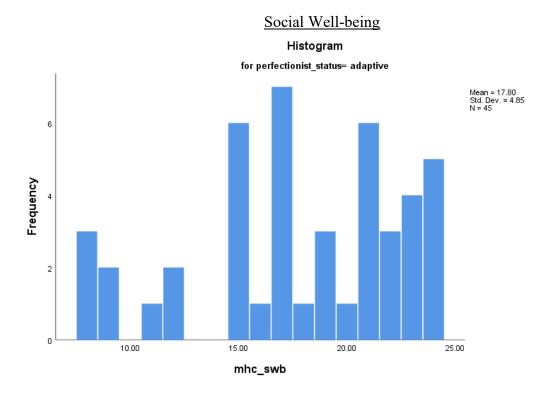
Adaptive perfectionists



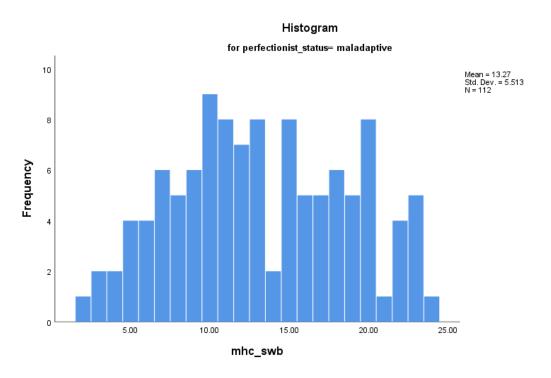
Maladaptive perfectionists



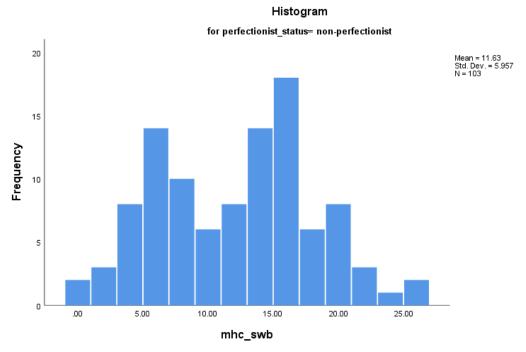
Non-perfectionists



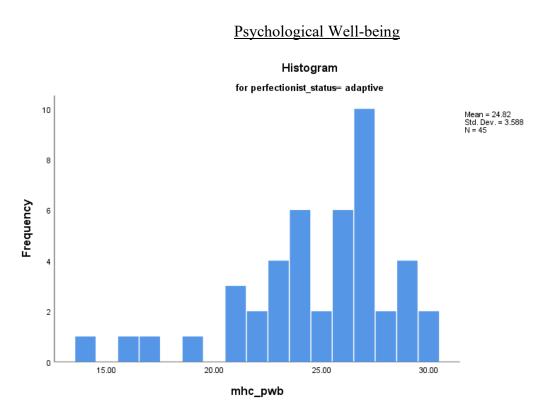
Adaptive perfectionists



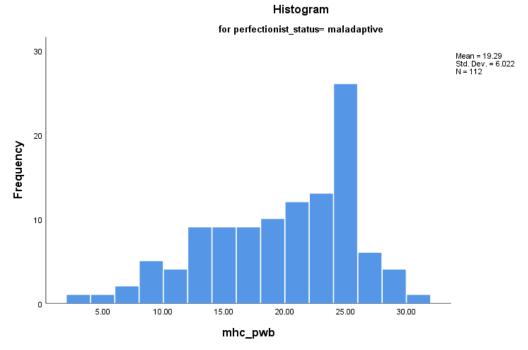
Maladaptive perfectionists



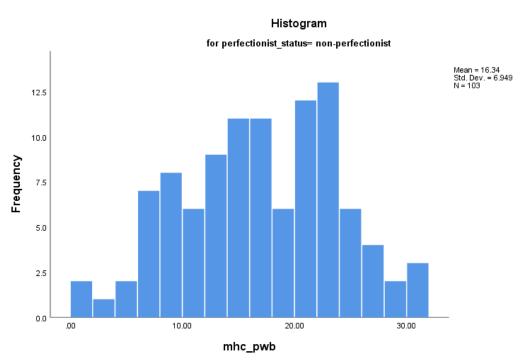
Non-perfectionists



Adaptive perfectionists



Maladaptive perfectionists



Non-perfectionists

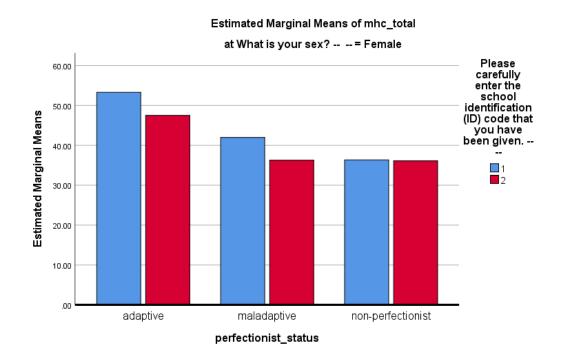
# **Appendix R Additional Analysis**

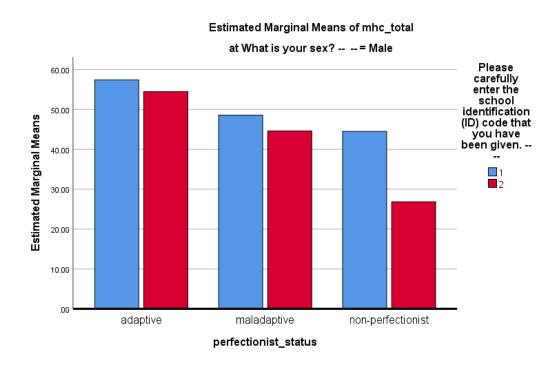
#### Results of $2 \times 2 \times 3$ Factorial ANOVA

A 2 × 2 × 3 factorial ANOVA was conducted to investigate main and interaction effects of sex, school and perfectionism group on total well-being scores to determine whether separate analyses for school and sex were required. Sex had two levels (male and female). The five participants who selected 'other' were not analysed as a separate group as this would have resulted in very unequal sample sizes, potentially confounding the results of the factorial ANOVA (Grace-Martin, n.d.). These participants were excluded from this analysis. School had two levels (school 1 and school 2) and perfectionism group had three levels (adaptive perfectionists, maladaptive perfectionists and non-perfectionists). There were significant main effects for both school, F(1, 243) = 7.19, p = .008,  $\eta_p^2 = .03$ , and perfectionism group, F(2, 243) = 17.65, p < .001,  $\eta_p^2 = .13$ . The main effect for sex was not significant, F(1, 243) = 3.41, p = .066,  $\eta_p^2 = .01$ .

The interactions between sex and perfectionism group, F(2, 243) = 2.27, p = .105,  $\eta_p^2 = .02$ , school and perfectionism group, F(2, 243) = .667, p = .509,  $\eta_p^2 = .01$ , and school and sex, F(2, 243) = .890, p = .346,  $\eta_p^2 < .01$ , were not significant. However, there was a significant three-way interaction between sex, school and perfectionism group, F(2, 243) = 3.57, p = .03,  $\eta_p^2 = .03$ . Interaction graphs and bar charts (displayed on the next page) were used to interpret this interaction. This revealed a different pattern relating to differences between male and female total well-being scores across schools for non-perfectionists. For adaptive and maladaptive perfectionists, males and females had higher well-being scores in one school than the other (school 1 than school 2). For non-perfectionists, while females had similar well-being scores across both schools, the difference between males' scores across the two schools was greater than the differences observed for adaptive and maladaptive perfectionists. As the effect sizes for this three-way interaction and the main effect for school were small according to Cohen's (1988) guidelines, the decision was made to combine the data from the two schools in the main analysis.

# Bar charts displaying 3-way interaction between between sex, school and perfectionism status (group) for total well-being





Appendix R

<u>Table showing means and standard deviations for total well-being scores across males and</u>

<u>females in schools 1 and 2 by perfectionism group</u>

			Scł	nool 1						Scł	nool 2			
	]	Males		F	emales		-	]	Males			F	emales	
Perfectionism group	M	SD	n	M	SD	n		M	SD	n		1	SD	n
AP	57.43	7.50	23	53.31	8.30	13		54.50	10.29	6	47.	50	24.75	2
MP	48.58	12.37	26	41.98	13.10	48		44.64	11.00	11	36.	29	12.64	24
NP	44.50	14.30	29	36.36	14.69	39		26.88	11.94	16	36.	11	11.75	18

*Note.* AP = adaptive perfectionists; MP = maladaptive perfectionists; NP = non-perfectionists.

# **Appendix S Researcher Reflexivity**

In reflexive thematic analysis (TA), researcher subjectivity is seen as central to the analytic process rather than something that should be minimised (Braun et al., 2018). However, researchers should be reflexive and transparent about the way that they use TA and the assumptions underpinning their approach (Braun & Clarke, 2019). Therefore, the researcher kept a reflexive journal during the analysis to be mindful of any personal values, beliefs, experiences and biases which may have influenced her interpretation of the data and coding decisions. In particular, this process enabled the researcher (who would consider herself to have perfectionistic tendencies) to reflect on how her shared experiences with the participants may have shaped how she made sense of the data. She also reflected on how her extensive prior reading around the topic of perfectionism may have influenced her interpretations, for example by heightening her awareness to theory and research connected to participants' comments.

In addition to keeping the reflexive diary, the researcher engaged in discussions with her supervisors about decisions relating to codes and themes and asked a voluntary research assistant to independently group the codes into themes. These activities helped the researcher to reflect on how her decisions were informed by assumptions and to heighten her awareness to overlooked elements within the data.

- Participant spoke about how perfectionists might put of tasks. This reminded me of meanth linking maladaptive perfectionism to procrastination. - Spoke about always having to keep bury. This made me think about how I always need to jul like I can being productive. Nowever, for this participant, it sounded like their motivation for this behaviour is to avoid borrdom. - Second student to talk about how not doing well in a subject motivated them to by harder. I initially viewed this as a natural reaction and did not read into it too much. However, this could be because this is how I might respond if I wasn't doing well at something Would a maladaptive or non-perfectioned be more likely to give up?

Sample from reflexive journal

# **Appendix T Sample Coded Interview Extract**

The researcher coded by hand on transcripts before refining codes using NVivo 12. For the purpose of this sample only, final codes were added to a transcript using tracked changes on Microsoft Word in order to clearly show codes.

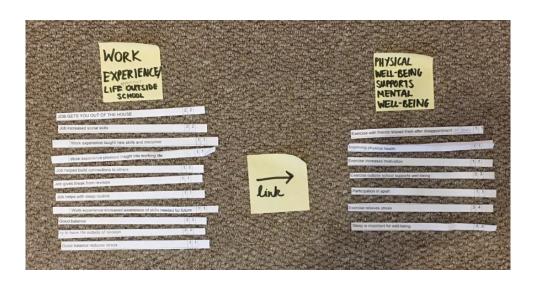
Interviewer – In addition to perfectionism I am also interested in wellbeing	
which is about erm feeling well and functioning effectively and erm are	
there any things that you think help you to feel good and to to function well	
in school?	
Participant – Erm	
Interviewer – And it can be things outside school that help as well.	Lauren Holmes GET ON WITH IT
Participant – In school, I suppose that would be part of the just get on with	GE 31 111111
it thing. It's say if I'm not feeling great I'd say 'Okay, I'm still doing	Lauren Holmes Keeping things in perspective
okay in school so it's not all bad'.	
Interviewer – Mm.	
Position of Court For Court Addition I and Addition I	Lauren Holmes Focusing on what you can do or control
Participant – So yeah. Erm, focus on the things I can do to sort of distract	- rocusing on what you can do or control
from the things that you can't do.	
Interviewer – Mm yeah. So focus on things you can do and just kind of	
get on with it. Are there any other things that you think help you erm?	
Participant – Erm obviously talking to people and things helps. Just having	H Lauren Holmes Talking to friends
people that even if we don't have particularly deep conversations, just	
having company would help to just chat to.	
Interviewer - And erm who do you mean? Like do you mean other, when	
you say other people?	
Participant – Erm close friends really.	
Interviewer - Yeah, okay.	
Participant – Yeah.	
Interviewer - And how does that help do you think?	
	k

		Lauren Holmes
Participant – Erm hmm. Er for one thing you can just I don't		Hides emotions
particularly talk about how I'm feeling, which is not necessarily, well,		Lauren Holmes
possibly not a good thing. But just being able to talk to someone and say		Having friends who want your company supports sesteem and well-being
'Oh, someone enjoys my company' it's obviously good for self-esteem and		-
things.		
Interviewer – Mm yeah.		
	ш	Lauren Holmes
Participant – But then, yeah, just having people around you helps.	-	Knowing friends are around for them
Interviewer - Mm yeah. Alright, thank you. Erm so I just have some		
questions about stress. So how much do you think you're affected by stress		
in school?		
Participant – Probably not much.	Ш	Lauren Holmes Not affected much by stress
Interviewer - Yeah.		
Participant – It might be subconscious if there is any, but I can say I'm		
not I know I should be practising and things and revising but I'm not		
particularly worried about exams and things.		
Interviewer - Yeah. And what do you think erm like helps you? Like why		
do you think you don't get maybe as stressed as other people might do		
then?		Investigation
Participant – Erm it's going to sound very egotistical but possibly just	<b>(H</b> )	Lauren Holmes Doing well in class boosts confidence
because I'm doing quite well in class.		
Interviewer – Yeah.		
Tem.		
Participant - So I know it's obviously a lot harder in exams but I'm not		
sure I've possibly grasped that yet.		
Interviewer - Yeah.		
Participant - So yeah, erm thinking 'I'm doing okay in class. I'ye got the		
hang of most of this. I can probably do just as well in exams.		
Interviewer – Mm. And have you ever felt stressed about anything? Like		

can you think of any time when you did feel a little bit of stress? Participant - Erm going back to Music. Interviewer - Oh okay. Lauren Holmes Negative cognitions when initially found something Participant - When I did have the performances and I knew 'I'm not doing very well at this'. Interviewer - Yeah. Participant - 'I'm going to get quite a bad grade. It's going to be bad'. Interviewer - And what kind of helped you in that situation? I know you kind of talked about it before but is there anything... anything else that kind of...? Lauren Holmes Participant - The teachers were quite understanding. They knew I wasn't Understanding teachers very good at musical instruments and things. So they weren't saying 'Oh, Lauren Holmes Teachers give advice to further improve you've got to try harder'. They erm encouraged me to get lessons, which have helped, and then they erm have just gone through it with me and said Lauren Holmes 'This is how you need to do all this'. It is it's been useful. Interviewer – Mm.

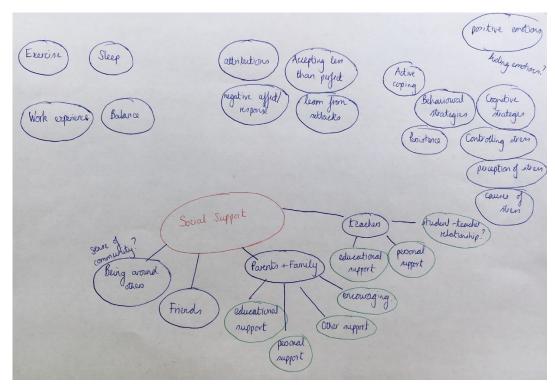
# **Appendix U Manually Grouping Codes into Potential Themes**



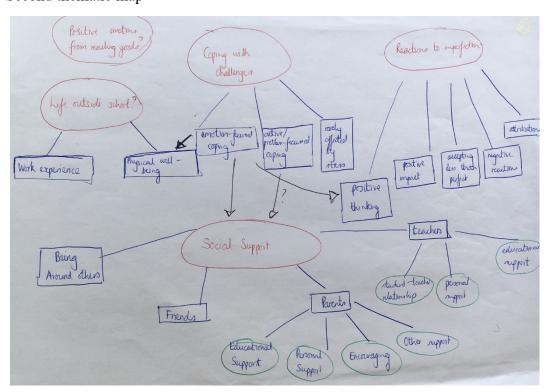


# **Appendix V Thematic Map Development**

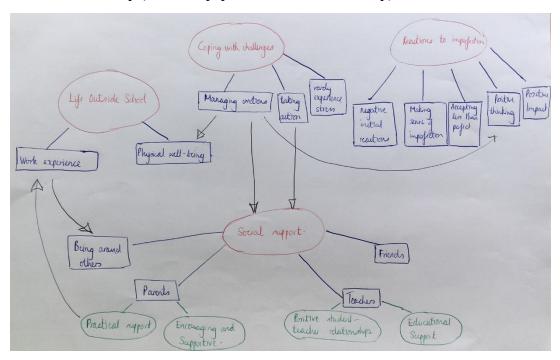
### First thematic map



#### Second thematic map



# Third thematic map (see main paper for final thematic map)



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