



Reid, Natalie (2024) *An exploration of universal parenting interventions for parents of adolescents*. D Clin Psy thesis.

<https://theses.gla.ac.uk/84287/>

Copyright and moral rights for this work are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This work cannot be reproduced or quoted extensively from without first obtaining permission from the author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given

Enlighten: Theses

<https://theses.gla.ac.uk/>
research-enlighten@glasgow.ac.uk



An exploration of universal parenting interventions for parents of adolescents

Natalie Reid

MSc Applied Psychology (Healthcare) For Children and Young People

MA (Hons) Psychology

Submitted in partial fulfilment of the requirements for the degree of
Doctorate in Clinical Psychology

School of Health and Wellbeing

College of Medical, Veterinary and Life Sciences

University of Glasgow

February 2024

Table of Contents

List of Tables.....	3
List of Figures	4
Acknowledgements	5
Chapter 1: Systematic Review.....	6
Abstract	7
Introduction	9
Methods	12
Results	17
Discussion	42
References	49
Chapter 2: Major Research Project.....	56
Plain English Summary	57
Abstract	59
Introduction	60
Methods	64
Results	72
Discussion	90
References	98
Appendices.....	105
Appendix 1.1: PRISMA Checklist	105
Appendix 1.2: Example search strategy	108
Appendix 1.3: Data extraction template.....	109
Appendix 2.1: CONSORT checklist – extension for pilot and feasibility trials	111
Appendix 2.2: Recruitment flyer sent to parents.....	115
Appendix 2.3: MVLS Ethics approval confirmation letter	116
Appendix 2.4: List of topics covered in the Helping Your Child Live Life to the Full course with descriptions for parents	117
Appendix 2.5: Adaptations made to the Brief Parental Self Efficacy Scale	119
Appendix 2.6: Focus group question guide.....	120
Appendix 2.7: Recollection of discussion points from missing focus group data	122
Appendix 2.8: MRP proposal.....	123
Appendix 2.9: Participant information sheet and consent form.....	124

List of Tables

Chapter 1: Systematic Review

- 1.1 – Overview of included studies and interventions
- 1.2 – Summary of CCAT scores for included papers
- 1.3 – Effectiveness of interventions

Chapter 2: Major Research Project

- 2.1 – Demographic data at baseline
- 2.2 – SDQ scores at baseline
- 2.3 – Key themes identified in qualitative data

List of Figures

Chapter 1: Systematic Review

1.1 – PRISMA flow diagram of search process

Chapter 2: Major Research Project

2.1 – Participant flow chart

2.2 – Parent reported levels of satisfaction with the training

2.3 – Post-workshop evaluation feedback

Acknowledgements

Firstly, I would like to thank the parents from Mearns Castle High School who participated in the study. It was a pleasure to work with you all, thank you for taking the time to share your experiences with me. I would also like to thank the staff from Mearns Castle, with special thanks to Roseann Cartledge who helped to make this study possible.

A sincere thank you to my research supervisor Professor Chris Williams for all your guidance and support throughout all aspects of the project. I would also like to thank Theresa Kelly for your support with the data collection. Thanks to my research advisor Dr Breda Cullen and also to Dr Carrie-Anne McClay and Dr Lynda Russell for your support and guidance around the qualitative aspects of this study. I would also like to thank Paul Cannon from the University of Glasgow library for your support in the development of my systematic review search strategy.

Thank you to my fellow DClinPsy peers from 2021 – it has been a pleasure to experience the highs and lows of training with you all. Special thanks to my fellow Ayrshire trainees and to Katie Phillips for all your help as my second reviewer for my systematic review – we got there in the end!

Thank you to all my family and friends for all your love, encouragement and understanding throughout my training, particularly over these last few months. A special thanks to my mum and dad for your unwavering support and for always offering to proof-read my thesis drafts.

Finally, a massive thank you to my partner Kris. Your encouragement and patience throughout this process has known no bounds and I could never have done it without you.

Chapter 1: Systematic Review

A systematic review of universal parenting interventions: Effects on adolescent internalizing symptoms and parental self-efficacy.

Prepared in accordance with the author requirements for the
Journal of Clinical Child & Adolescent Psychology

<https://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=hcap20#style>

Abstract

Objective: The review assessed the effectiveness of universal parenting interventions in improving parental self-efficacy and reducing and preventing internalizing problems (anxiety, depression and anger) in adolescents.

Method: A systematic review was conducted to examine the evidence base. Five databases were searched from inception to December 2023, supplemented by informal search strategies. 14 studies were eligible for inclusion in the review. Studies were appraised using a quality assessment tool appropriate for various research designs, and a proportion were independently rated to agree the final selection. A narrative synthesis approach was applied to answer the research questions.

Results: The evidence for the effectiveness of universal parenting interventions was found to be mixed. Interventions were heterogenous and results varied considerably between studies. Internet-based interventions showed promise in reducing internalizing symptoms as they consistently produced small effects, but results should be interpreted with caution as research was limited in this area. The effectiveness of interventions based on social-learning theory remains unclear due to significant result variability across studies. There was limited research regarding interventions based on mindfulness and family systems theory. Attachment-based interventions did not appear to be effective in reducing internalizing symptoms or increasing parental self-efficacy.

Conclusion: The available evidence suggests universal parenting interventions may produce positive outcomes for reducing and preventing internalizing symptoms in adolescents, with internet-based interventions offering the most promising and consistent results. Further high-quality research is required, as methodological issues were present across most studies and longer periods of follow-up are required to determine their preventative effects. Further research is required around the impact of interventions on parental self-efficacy.

Key words: Review, universal, parenting, adolescent, mental health, prevention.

Introduction

Mental health problems such as anxiety and depression have become increasingly common in children and young people, with research indicating the peak age of onset for common mental disorders is 14.5 years (Solmi et al., 2022). The burden of anxiety, depression and anger, collectively known as internalizing symptoms (Yap et al., 2016), has appeared to increase over recent cohorts of adolescents, whilst externalizing symptoms such as challenging behaviour have remained stable (Bor et al., 2014). With increasingly long waiting lists to access specialist children's services such as Child and Adolescent Mental Health Services (CAMHS), there is an urgent need for effective preventative interventions to improve this global public health problem (Yap et al., 2019).

Universal parenting interventions can offer a brief, low-intensity treatment option which is cost-effective and fits well within a stepped model of care (Butler et al., 2020). Research suggests that parenting interventions can produce improvements in emotional and behavioural outcomes amongst children and young people, across various stages of child development (Barlow et al., 2011). The onset of puberty in adolescence is associated with rapid neurological, emotional, physical and social changes, which make it a particularly challenging stage for many parents to navigate (Patton et al., 2016). Consequently, many parents report reduced self-efficacy and confidence in their parenting during early adolescence, which has been shown to impact negatively on adolescent's wellbeing (Glatz & Buchanan, 2015; Bodalski et al., 2023).

However, to date research has heavily focused on preventative interventions for parents of young children under the age of 12 rather than those of adolescents. Much of the existing research specific to parents of adolescents aged 12-18 has focused on targeting externalizing

symptoms, risk-taking behaviour and substance use, rather than preventing internalizing symptoms (Sandler et al., 2011; Yap et al., 2019). Although parenting interventions such as Teen Triple P and the Strengthening Families Programme have shown promise in targeting the specific needs of adolescents, these interventions are often targeted towards parents of ‘at risk’ youth (Ralph & Sanders, 2006; Kumpfer, Xie & O’Driscoll, 2012). It remains unclear to what extent these interventions are effective for preventing internalizing symptoms in universal populations.

Previous reviews have attempted to summarise the literature in this area. Yap et al. (2016) produced a systematic review and meta-analysis of randomised controlled trials (RCTs) that aimed to prevent internalizing symptoms in children. They found that parenting interventions produced a small to very small effect in reducing internalizing symptoms in children and young people, and suggested there may be significant long-term reductions in clinical presentations of internalizing disorders, but further research is needed. Although this review was comprehensive, the focus was on a wide age range (birth to 18-years) and only included three papers that targeted parents of adolescents, which limited the conclusions that could be drawn for this population. Additionally, Yap et al.’s (2016) review only included RCTs, which may have excluded several relevant and important studies. RCTs require robust procedures that can be difficult to replicate in ‘real world’ clinical settings (Faber et al., 2016). This is an important consideration for evaluations of universal parenting interventions, as although RCTs are viewed as the ‘gold-standard’ for effectiveness research, this approach may be viewed as infeasible for many researchers, particularly in the aftermath of the COVID-19 pandemic.

More recent systematic reviews in this area have used a wider inclusion criterion to incorporate studies with any quantitative design. Jewell, Wittkowski and Pratt (2022) aimed to evaluate the impact of parent-only interventions on child anxiety, and found that preventative parenting interventions did not appear to have a significant effect on child anxiety symptoms. Conversely, a recent review by Jugovac et al. (2022) examined the effectiveness of attachment and emotion-focused parenting interventions for reducing and preventing externalizing and internalizing symptoms in young people. This review found that attachment and emotion-focused interventions were significantly more effective at reducing internalizing symptoms than waitlist controls, and effects were sustained at 6-month follow-up. Unfortunately, similar to Yap et al. (2016), these reviews focused on a wide age range (from birth to 18-years-old), which limited the conclusions that could be drawn for adolescents. Both reviews also used inclusion criterion specific to their primary research questions, which meant they only included interventions that aimed to reduce anxiety, or that were attachment or emotion-focused. Consequently, both reviews had very different results, limiting the conclusions that could be drawn regarding the effects of universal parenting interventions more generally.

At present it remains unclear whether parenting interventions are helpful for preventing internalizing symptoms in adolescents. It also remains unclear whether these interventions are effective in increasing parental self-efficacy and confidence in parenting. Although attempts have been made to summarise the literature in this area, the inclusion criterion specified by existing reviews has limited the conclusions that can be drawn for the adolescent population. In light of these limitations, it is evident that further research on universal parenting interventions for adolescents is required.

Review Aims

This review aimed to fill the gap in the literature by focusing on universal parenting interventions which aim to reduce and prevent internalizing symptoms in adolescents. The phrase ‘internalizing symptoms’ is used to refer to symptoms of anxiety, depression and anger as this definition has been used in previous similar reviews (Yap et al., 2016). The following research questions were explored:

1. Do interventions aimed at parents of adolescents produce improved outcomes for adolescents in terms of anxiety, depression and anger?
2. Do these interventions improve parental self-efficacy or parental confidence in supporting their adolescent?
3. What types of intervention show promise at improving and preventing anxiety, depression and anger symptoms in adolescents?

Methods

This review was conducted in accordance with updated Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines (Page et al., 2021). Please see **Appendix 1.1** for the PRISMA reporting checklist. A protocol for this review was prospectively uploaded onto Open Science Framework (OSF) on 27th October 2023 (registration DOI [10.17605/OSF.IO/VPJH3](https://doi.org/10.17605/OSF.IO/VPJH3)). A small amendment was made to the protocol on 15th January 2024 to clarify an element of the inclusion criteria. ¹

¹ An amendment was made to OSF protocol to clarify that >50% of the intervention time must be focused on the parents.

Search strategy

A search strategy was developed with consultation from a specialist librarian from the University of Glasgow (PC). The PICOS (Population, Intervention, Comparison, Outcome, Study Design) framework was used for defining key elements of the research question and search strategy, as described here:

P – Parents of adolescents.

I – Universal parenting interventions.

C – Not applicable (studies with no comparison group will also be included).

O – Internalizing symptoms (defined in inclusion criteria section).

S – Any quantitative study designs including RCTs, feasibility/pilot studies, pre- and post-intervention comparison studies and control group studies.

Search terms were developed using criteria specified in previous similar reviews (Yap et al., 2016; Jewell, Wittkowski and Pratt, 2022). Five databases namely ASSIA, EMBASE, MEDLINE, PsycInfo and Web of Science Core Collection were searched in December 2023 for peer reviewed articles and grey literature, from inception until the present day. An example search strategy is presented in **Appendix 1.2**.

Inclusion and exclusion criteria

Studies that met the following criteria were included within the systematic review:

- Targeted parents/carers of adolescents (defined as 12-18 years old, high-school aged or international equivalent).
- Were based in a universal setting (e.g., school/community college setting).

- Interventions aimed to reduce or prevent internalizing symptoms in adolescents. ‘Internalizing symptoms’ are defined as per Yap et al. (2016) criteria and include anxiety, depression and anger.
- Over 50% of the intervention time was focused on the parents, although children may have received some intervention directly. This criterion has been specified by similar previous reviews (e.g., Yap et al., 2016).
- Included outcome measures related to adolescent internalizing symptoms (which may include parent-report measures) and/or parent outcomes related to parenting confidence or self-efficacy.
- Used a quantitative study design.
- Were published in English.

Studies were excluded from the current review if they:

- Only targeted adolescents with existing symptoms of anxiety/depression/anger (i.e., not universal).
- Had aims or methodology that did not fit the inclusion criteria.
- Included interventions that were designed to target other primary outcomes (e.g., substance misuse and behavioural disorders).
- Used only qualitative methodology.

Study selection

Reference management software (EndNote 21) was used for the study selection process.

Duplicate papers were identified and excluded prior to screening for eligibility. A total of 1,373 papers were screened by titles and abstracts by the lead reviewer and those that did not meet the inclusion criteria were excluded (n=1,321). The remaining 52 full texts were then

screened against the inclusion/exclusion criteria and ineligible papers were removed (n=39). A second reviewer (KP) independently screened 10% of studies at title/abstract screening (n=137) and full text review (n=5) to ensure accuracy of study selection. One of the full-text papers was selected by the lead reviewer due to ambiguity around inclusion, and the others were chosen at random. Four discrepancies were found between reviewers at title/abstract screen, indicating that reviewers agreed on 97.1% of papers (Cohen's Kappa; $K = 0.78$). This is considered to represent substantial agreement (Landis & Koch, 1977). Discrepancies were discussed by both reviewers until a shared decision was reached whether papers should be included in the full text review. There were no discrepancies between reviewers at full text review, indicating perfect agreement. Citation searching of included studies and previous reviews identified one additional study that met inclusion criteria. A total of 14 papers were included in the final review.

Data Extraction and Synthesis of Findings

Data extraction was completed by the lead reviewer. A standardised extraction template was developed to extract relevant data from the included studies (see **Appendix 1.3**). Effect sizes were calculated by the lead reviewer where authors had not reported them and data was available. Due to the diversity of methodologies used by the included studies, a narrative synthesis approach was applied to answer the review research questions, in adherence with guidelines provided by Popay et al. (2006). Using this approach, the researcher initially developed a preliminary description of studies that would be included in the review, where the intervention effects and quality of included studies were considered. The researcher then explored the relationships within and between studies, comparing the characteristics of included studies to draw conclusions regarding the available evidence in order to answer the research questions.

Quality Appraisal

The Crowe Critical Appraisal Tool version 1.4 (CCAT) (Crowe & Sheppard, 2011) was used to appraise the quality of included studies, as this tool is suitable for use across a variety of research designs and provides detailed guidance for reviewers. It consists of eight categories and 22 items. Each item has multiple item descriptors for supporting the reviewer to appraise and score each category. Each category then receives a final score on a scale of 0-5 which can be used to summarise the overall quality of the study. The lead reviewer used the CCAT to appraise the quality of all included studies, and the second reviewer independently appraised 25% of the included papers (3 papers in total). There was not more than a one-point difference across all categories in all papers. There was not more than a two-point difference on total score for each paper. Any discrepancies of ratings were discussed until a shared decision was reached regarding ratings for each paper. For the purposes of this review, a percentage score of 80% and above is indicative of a good quality paper, between 70-79% is indicative of a medium quality paper and below 69% is indicative of a poorer quality paper. Studies were not excluded on the basis of lower quality scores, as this review aimed to explore all interventions that are available for parents of adolescents. Strengths and limitations of papers are discussed in detail in the results section.

Results

Overview of included studies

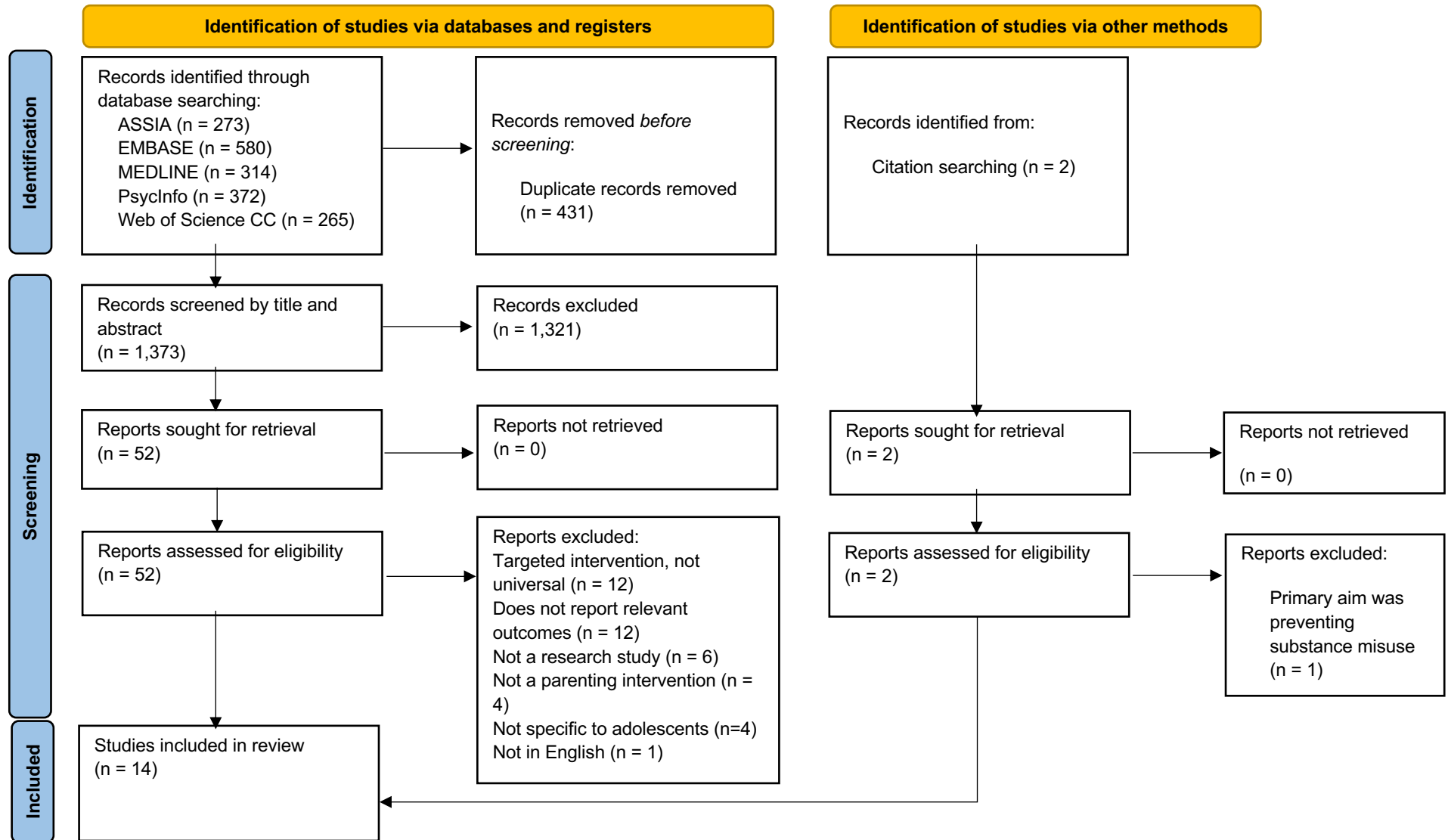
13 studies were eligible for inclusion in this review (see **Figure 1.1** for PRISMA flow diagram). Two studies (Yap et al., 2018 and Yap et al., 2019) were combined as they presented short-term and medium-term effects from the same study. An overview of included studies and intervention information can be found in **Table 1.1**.

Country and setting

Of the 13 studies included in the review, five studies were conducted in Australia (Buttigieg et al., 2015; Cardamone-Breen et al., 2018; Kehoe et al., 2014; Ralph & Sanders, 2003; Yap et al., 2018/2019), and two in Sweden (Alfredsson et al., 2018; Wetterborg et al., 2019). The remaining studies were conducted across a variety of countries, including Spain (Ballester et al., 2020), New Zealand (Chu et al., 2014), Italy (Giannotta, Ortega & Stattin, 2013), China (Low, 2012), Ireland (Nitsch et al., 2015) and the USA (Spence, 2008).

The studies were conducted across a variety of universal settings. The most common settings were school-based settings; four in secondary schools (Buttigieg et al., 2015; Kehoe et al., 2014; Low, 2012; Ralph & Sanders, 2003), and four in primary or middle schools (Ballester et al., 2020; Giannotta, Ortega & Stattin, 2013; Nitsch et al., 2015; Spence, 2008). Three studies evaluated online interventions (Cardamone-Breen et al., 2018; Wetterborg et al., 2019; Yap et al., 2018/2019). The remaining two interventions were based in unspecified community venues (Alfredsson et al., 2018; Chu et al., 2014).

Figure 1.1: PRISMA flow diagram of search process



Study design

Seven studies were RCTs (Buttigieg et al., 2015; Cardamone-Breen et al., 2018; Chu et al., 2014; Kehoe et al., 2014; Nitsch et al., 2015; Wetterborg et al., 2019; Yap et al., 2018/2019). Three studies implemented a quasi-experimental design with a control group (Ballester et al., 2020; Giannotta, Ortega & Stattin, 2013; Low, 2012). Two studies utilized a pre- and post-measures within-group design (Ralph & Sanders, 2003; Spence, 2008). Alfredsson et al. (2018) used a naturalistic study design which compared five different parenting interventions but did not include a control group. Two of the included studies were initial pilot evaluations (Ralph & Sanders, 2003; Wetterborg et al., 2019).

Of the nine studies that included a control group, the majority utilized a waitlist control condition (Ballester et al., 2020; Cardamone-Breen et al., 2018; Chu et al., 2014; Low, 2012; Nitsch et al., 2015; Wetterborg et al., 2019). The remaining three studies used a control group that did not receive any intervention (Buttigieg et al., 2015; Giannotta, Ortega & Stattin, 2013; Kehoe et al., 2014). None of the studies used an active control group.

Table 1.1: Overview of included studies and interventions

Study	Study country and setting	Sample	Aims of study	Intervention and theoretical model	Intervention length, delivery and supervision
Alfredsson et al., (2018)	Sweden, community venues where existing parental support activities took place.	315 parents of adolescents aged 10-17 (277 mothers and 38 fathers).	To compare outcomes between five different parenting programs in naturalistic setting (only 3 included in review as others were targeted interventions).	<p>Active Parenting teens group– Parent group (based on Adlerian/attachment theory).</p> <p>Connect adolescent version – Parent group (based on attachment theory).</p> <p>COPE teenage version – Parent group (based on social learning theory).</p>	<p>Active parenting – 6 x 3-hour sessions</p> <p>Connect – 10 x 1-hour sessions</p> <p>COPE - 10 x 2-hour sessions (& optional follow-up)</p> <p>All interventions delivered by trained leaders. Facilitator occupation and supervision arrangements not stated.</p>
Ballester et al., (2020)	Spain, primary and middle schools.	275 families and 289 adolescents aged 11-14. Experimental group n=198 parents (144 mothers, 54 fathers) Control n=106 (88 mothers, 18 fathers).	To evaluate the effectiveness of the Strengthening Families Program (SFP) 11-14 on reducing internalizing and externalizing symptoms in adolescents.	The Strengthening Families Program 11-14 (SFP) – Family group sessions (based on family systems theory).	6 sessions (length not stated), working in parallel with children, parents and the family as a whole. Additional recall session 6 months after program completion. Facilitators received previous training but occupation and supervision arrangements not stated.

Buttigieg et al. (2015)	Australia, secondary schools.	2027 parents of grade 7-9 pupils from 24 schools. Intervention (adolescent only) n=839 Intervention (parent education) n=128 Control n=1060 (gender not specified).	To evaluate whether the Resilient Families intervention prevented the development of depressive symptoms through early years of secondary school.	Resilient Families – Initial parent psychoeducation evening and parent group (based on attachment theory).	Initial 2-hour parent education evening and PACE group is 8 x 2-hour group sessions. Facilitators were clinicians working outside the school, occupations and supervision arrangements not stated.
Cardamone-Breen et al. (2018)	Australia, online.	349 parent(s) of 12–15-year-olds. Intervention group (n=164) Control group (n=185) 315 mothers and 28 fathers.	To evaluate short-term effects of the Partners in Parenting (PiP) intervention on parenting risk and protective factors and symptoms of anxiety and depression in adolescents.	Partners in Parenting (PiP) – Individual web-based program (multi-model).	Single-session and follow-up online modules completed in parents' own time. No facilitator involved as parents accessed intervention independently.
Chu et al. (2014)	New Zealand, various community venues.	72 families of adolescents between 12-15 assigned to intervention (n=35) or care as usual control condition (n=37). Data	To evaluate the efficacy of Group Teen Triple P (GTTP) as a universal intervention to reduce family risk factors known to be associated with the development of	Group Teen Triple P – Parent group and individual follow-up support (based on social-learning theory).	4 x 2-hour group fortnightly sessions, 3 individual 30-minute telephone consultation and final group consolidation session. Facilitated by 4 accredited Triple-P facilitators. Fidelity checklists were completed following each session.

		from mothers only.	adolescent problem behaviours.		
Giannotta, Ortega & Stattin (2013)	Italy, middle schools.	147 mothers and 147 adolescents aged 11-14. Intervention group (n = 65) Control group (n = 82).	To assess the feasibility and effectiveness of universal parenting program Connect.	Connect – Parent group (based on attachment theory).	10 x 1-hour weekly sessions. Delivered by psychologists, who received training from the program creator. Regular supervision was provided to ensure fidelity.
Kehoe et al. (2014)	Australia, secondary schools.	255 parents and 224 youths aged 10-13 (mean age of 12.01). Intervention group (n=114), control group (n=99) (gender not specified).	To evaluate whether Tuning in to Teens (TINT) improved parent emotion socialization and reduced youth internalizing problems.	Tuning in to Teens (TINT) – Parent group (based on mindfulness/Dialectical Behaviour Therapy).	6 x 2-hour weekly sessions. Facilitated by program creator and mental health professional volunteer/psychology graduate. No supervision arrangements stated but structured manual used and fidelity checklists were used.
Low (2012)	Hong Kong, high schools.	91 parents of adolescents. Experimental groups n = 65 (52 female, 13 male) Comparison groups n = 26 (25 female, 1 male).	To examine improvement in adolescent behaviour, reductions in parenting stress, change of parenting beliefs and reductions in conflict level between parents and adolescents after parents participated in	The Challenging Years – Parent group (based on social-learning theory).	4 x 2-hour weekly sessions. Facilitated by three social workers, supervision arrangements not specified.

			The Challenging Years.		
Nitsch et al. (2015)	Ireland, primary and post-primary schools.	126 parents of adolescents aged 11-16 randomly assigned to Parents Plus Adolescents Programme (PPAP) (n=82; 61 mothers, 9 fathers) or waitlist (n=44; 32 mothers, 6 fathers).	To examine the effectiveness of PPAP in reducing emotional and behavioural problems in adolescents, and in increasing parental satisfaction and reducing stress with a universal sample.	Parents Plus Adolescents Programme (PPAP) – Parent group (based on social-learning theory).	8 weekly sessions (session length not stated). Two facilitators with a health/education background attended group supervision sessions during group delivery. Manual and adherence checklist were provided for each group session.
Ralph & Sanders (2003)	Australia, secondary schools.	37 parents of 13-year-old high school children (gender not specified).	To evaluate the efficacy of Group Teen Triple P (GTTP) of reducing risk factors associated with the development of emotional and behaviour problems in teenagers with a universal sample.	Group Teen Triple P – Parent group and individual follow-up support (based on social-learning theory).	4 x 2-hour group sessions, then 4 x 30-minute individual follow-up telephone sessions. Facilitated by either the creator of GTTP, a clinical psychologist or school guidance teacher. All facilitators were provided with fidelity checklist to complete at the end of each session.
Spence (2008)	USA, middle school.	20 parents (14 mothers, 6 fathers) of adolescents.	To determine whether parent participation in Systematic Training for Effective	Systematic Training for Effective Parenting-Teen (STEP-Teen) –	3 x 3-hour sessions. Intervention was delivered by a Masters-level school psychologist and a psychology

			Parenting-Teen (STEP-Teen) promoted more democratic family values and reduced problematic behaviours and emotions in adolescents.	Parent group (based on Adlerian/attachment theory).	doctoral student. Supervision arrangements not stated.
Wetterborg et al. (2019)	Sweden, online.	75 families (66 mothers, 9 fathers) with adolescents aged 12-18, randomly assigned to Parent-Web (n=43) or waitlist control group (n=32).	To evaluate the feasibility of Parent-Web and compare its effects with a waitlist control. The study aimed to examine program acceptability, adherence and attrition, as well as looking at the impact on parent and child outcomes.	Parent-Web – Individual web-based program (multi-model).	Between 6-9 weeks (dependent on parents accessing optional modules). Parents accessed modules independently, but two psychology masters' students and four social workers were family guides, who received regular supervision from a psychologist.
Yap et al. (2018/2019)	Australia, online.	359 parent-adolescent dyads were randomised to intervention (n=179 parents, 153 mothers and 26 fathers) or control condition (n=180 parents,	To examine the effectiveness of Partners in Parenting (PiP) on parenting risk and protective factors for adolescent depression and anxiety, and on adolescent and anxiety symptoms at two timepoints (2018	Partners in Parenting (PiP) - Individual web-based program (multi-model).	Up to 9 modules available, parents complete these in their own time. A new module is available every 7 days and parents have access to content for 3 years. Parents accessed the intervention independently.

		160 mothers, 20 fathers).	study – post-intervention, 2019 study – 12-month follow-up).		
--	--	---------------------------	--	--	--

Participants

Sample sizes ranged from 20 parents (Spence, 2008) to 2027 (Ballester et al., 2020). The large majority of parent participants were female, with an average of 86.6% female participants across all studies that provided information on parent gender. Two studies only included data from mothers due to the limited data that was provided by fathers (Chu et al., 2014; Giannotta, Ortega & Stattin, 2013).

The majority of studies included parents of adolescents between the ages of 12-18 (Buttigieg et al., 2015; Cardamone-Breen et al., 2018; Chu et al., 2014; Nitsch et al., 2015; Ralph & Sanders, 2003; Wetterborg et al., 2019). However, some studies included parents of children as young as 10 (Alfredsson et al., 2018; Kehoe et al., 2014). The decision was taken to include these studies in the review as the papers specified the interventions were aimed at parents of adolescents. Four studies targeted parents of young adolescents, as Ballester et al., (2020) and Giannotta, Ortega & Stattin (2013) targeted parents of 11–14-year-olds, Kehoe et al. (2014) targeted parents of 10–13-year-olds and Ralph & Sanders (2003) targeted parents of 13-year-olds. Three studies did not specify the age range/school year group of young people and simply referred to participants as ‘parents of adolescents’ (Low, 2012; Spence, 2008; Yap et al., 2018/2019).

Intervention modality and characteristics

Five of the studies evaluated programs primarily based on social learning theory. The interventions included Group Teen Triple P (Chu et al., 2014; Ralph & Sanders, 2003), COPE (Community Parent Education) program (Alfredsson et al., 2018), The Challenging Years (Low, 2012) and Parents Plus Adolescents Program (PPAP) (Nitsch et al., 2015).

These programs tended to use strategies such as group discussions, role-play and video demonstrations throughout the interventions.

Three studies evaluated programs based on attachment theory. Attachment-based interventions included Connect (Alfredsson et al., 2018; Giannotta, Ortega & Stattin, 2013) and Resilient Families (Buttigieg et al., 2015). These interventions included psychoeducation about attachment, adolescent development and strategies for improving parent-child communication. Similarly, two studies included evaluations of programs based on Adler's individual theory of psychology, which is grounded in attachment theory. Alfredsson et al. (2018) evaluated the Active Parenting Teens Group and Spence (2008) evaluated Systemic Training for Effective Parenting-Teen (STEP-Teen). These Adlerian-based interventions focused on building the parent-child relationship by teaching parents' effective ways of relating to their child through group discussion and home-based exercises.

The three studies of web-based programs did not specify a psychological model, instead reporting the interventions drew from a range of theories and models. Cardamone-Breen (2018) and Yap et al., (2018/2019) evaluated the effectiveness of Partners in Parenting (PiP), which provided individualized psychoeducation to parents based on the results of their baseline assessment. Wetterborg et al. (2019) evaluated the feasibility of Parent-Web, which provided parents with access to various mandatory and optional online modules, which included written text, videos of role-played situations, and weekly homework.

Ballester et al. (2020) evaluated the Strengthening Families Program, which was based on family systems theory. The program included elements of psychoeducation for improving parent-child communication, parent emotion regulation strategies and behavioural techniques

for modifying behaviour. Kehoe et al. (2014) was the only study to evaluate a mindfulness-based parenting intervention. They reported that Tuning in to Teens (TINT) was based on principles of Dialectical Behaviour Therapy (DBT) and taught parents emotion regulation skills, mindfulness and explored parental self-care.

It is important to note that for the purposes of the narrative synthesis the primary theoretical model for each intervention has been reported, however many of the papers stated that interventions were based on a range of psychological theories and models.

Interventions ranged from 10 group sessions which lasted two-hours each (COPE, Alfredsson et al., 2018) to a single individualized web-based session, with optional follow-up online modules (Cardamone-Breen et al., 2018). The average total length of intervention, from studies that reported this information, was 12.1 hours. It is important to note that this excluded online interventions as parents completed online modules at their own pace (Yap et al., 2018/2019; Wetterborg et al., 2019; Cardamone-Breen et al., 2018).

Fidelity and supervision issues

Of the studies that included information about facilitators, facilitator/trainer occupations included psychologists (Giannotta, Ortega & Stattin, 2013; Ralph & Saunders, 2003), psychology graduates/trainee psychologists (Kehoe et al., 2014; Spence, 2008; Wetterborg et al., 2019), social workers (Low, 2012; Wetterborg et al., 2019), school guidance teachers (Ralph & Saunders, 2003), unspecified health professionals (Buttigieg et al., 2015; Kehoe et al., 2014; Nitsch et al., 2015) and unspecified accredited facilitators (Chu et al., 2014). The majority of studies reported that facilitators had attended training specific to the program delivery (Alfredsson et al., 2018; Ballester et al., 2020; Chu et al., 2014; Giannotta, Ortega &

Stattin, 2013; Kehoe et al., 2014; Nitsch et al., 2015; Ralph & Sanders, 2003; Wetterborg et al., 2019). Most studies did not include information about supervision arrangements, with the exception of Giannotta, Ortega & Stattin (2013), who reported regular supervision was provided to facilitators and Nitsch et al. (2015) who reported facilitators attended group supervision throughout program delivery. Four papers reported the use of session checklists to encourage program fidelity (Chu et al., 2014; Kehoe et al., 2014; Nitsch et al., 2015; Ralph & Sanders, 2003).

Methodological quality

A breakdown of the CCAT scores for each paper are reported in **Table 1.2**. Four of the included papers were found to have CCAT scores above 80%, indicating they were of ‘good’ quality (Yap et al., 2018/2019; Cardamone-Breen et al., 2018; Nitsch et al., 2015; Wetterborg et al., 2019). Notably, three of these studies were the three evaluations of online interventions. These studies utilized an RCT design and incorporated longitudinal follow-up data ranging from 3-month (Cardamone-Breen et al., 2018) to 12-month follow-up (Yap et al., 2018/2019). The studies scored at least 4 out of 5 across most categories of the CCAT. Two papers scored slightly lower on ethical matters as conflicts of interest were unclear (Nitsch et al., 2015; Wetterborg et al., 2019). Wetterborg et al. (2019) also scored lower on sampling due to the small sample size.

Five studies were found to have a CCAT score between 70-79%, indicating they were of ‘medium’ quality (Buttigieg et al., 2015; Alfredsson et al., 2018; Chu et al., 2014; Kehoe et al., 2014; Ballester et al., 2020). The majority of these studies employed a RCT design, except for Ballester et al. (2020) who utilized a quasi-experimental design, and Alfredsson et al. (2018) who opted for a naturalistic study design. The majority of these studies had lower

scores due to sampling issues, such as unbalanced sample sizes across groups (Alfredsson et al., 2018) or unclear sampling methods (Buttigieg et al., 2015; Kehoe et al., 2014). For some studies, data collection methods were unclear and possibly subject to bias (Chu et al., 2014; Kehoe et al., 2014; Ballester et al., 2020). Two of the studies were also unclear on ethical matters (Chu et al., 2014; Kehoe et al., 2014). All studies had clear analysis plans, results and discussions, although Ballester et al. (2020) scored lower on results as the procedure for managing incomplete data was unclear and effect sizes were not reported.

Four of the included studies scored below 69% on the CCAT and were rated as poorer quality studies (Giannotta, Ortega & Stattin, 2013; Low, 2012; Spence, 2008; Ralph & Sanders, 2003). Significant issues were found across the design, sampling and data collection methods of these studies. Ethical matters were also unclear for the majority of papers, with several not reporting information about participant consent and confidentiality or declaring conflicts of interest (Ralph & Sanders, 2003, Low, 2012; Spence, 2008)

Table 1.2: Summary of CCAT scores for included papers

Study	Preliminaries	Introduction	Design	Sampling	Data collection	Ethical matters	Results	Discussion	Total score	Percentage score (Overall quality)
Yap et al. (2018/2019)	5	5	4	4	5	4	5	5	37	93%
Cardamone-Breen et al. (2018)	5	5	4	4	4	4	5	5	36	90%
Nitsch et al. (2015)	4	5	4	5	4	3	4	4	33	83%
Wetterborg et al. (2019)	4	5	4	3	5	3	4	5	33	83%
Buttigieg et al. (2015)	3	4	4	3	4	4	4	5	31	78%
Alfredsson et al. (2018)	4	5	3	2	3	4	4	5	30	75%
Chu et al. (2014)	3	5	4	4	2	3	5	4	30	75%
Kehoe et al. (2014)	4	4	4	3	3	2	4	4	28	70%
Ballester et al. (2020)	4	4	2	4	3	4	3	4	28	70%
Giannotta, Ortega&Stattin (2013)	3	5	3	2	2	4	4	4	27	68%
Low (2012)	3	5	2	2	2	2	3	4	23	58%
Spence (2008)	3	4	1	2	2	1	3	4	20	50%
Ralph & Sanders (2003)	3	4	2	2	2	0	3	3	19	48%

Effectiveness of interventions

A summary of outcome measures used across studies and the effects of interventions can be found in **Table 1.3**.

Outcome measures

The majority of studies included at least one measure of adolescent internalizing symptoms, five of which were parent-report only (Alfredsson et al., 2018; Giannotta, Ortega & Stattin, 2013; Low, 2012; Nitsch et al., 2015; Wetterborg et al., 2019), two were adolescent-report only (Buttigieg et al., 2015; Spence, 2008) and five studies included multi-informant measures i.e., reports from both parents and adolescents (Ballester et al., 2020; Cardamone-Breen et al., 2018; Chu et al., 2014; Kehoe et al., 2014; Yap et al., 2018/2019). Ralph & Sanders (2003) was the only study that did not include a measure of child internalizing symptoms, as the primary aim of the paper was to examine GTTP efficacy in reducing risk factors associated with the development of emotional problems, rather than targeting emotional problems themselves.

Studies varied widely in their use of measures for examining internalizing symptoms. Three studies used the Spence Children's Anxiety Scale (SCAS) to assess anxiety symptoms (Cardamone-Breen et al., 2018; Kehoe et al., 2014; Yap et al., 2018/2019). Two studies used measures that assessed depressive symptoms. Buttigieg et al. (2015) used the Centre for Epidemiological Studies-Depression Scale (CES-D) and Kehoe et al. (2014) used the Child Depression Inventory (CDI). 10 studies used measures that assessed a combination of emotional symptoms.

The most common measure for assessing emotional symptoms was the Strength and Difficulties Questionnaire (SDQ), which was used by five studies (Alfredsson et al., 2018; Chu et al., 2014; Low, 2012; Nitsch et al., 2015; Wetterborg et al., 2019). The SDQ contains a subscale for 'emotional symptoms', which was reported by most studies. However, two studies reported only the SDQ total score, which includes results from other subscales such as hyperactivity, conduct problems and peer problems (Alfredsson et al., 2018; Chu et al., 2014). Other measures used for assessing a combination of internalizing symptoms included the Behaviour Assessment System for Children and Adolescents (BASC) (Ballester et al., 2020), the Parenting to Reduce Adolescent Depression and Anxiety Scale (PRADAS) (Cardamone-Breen et al., 2018; Yap et al., 2018/2019), the Eyeberg Child Behaviour Inventory (ECBI) (Giannotta, Ortega & Stattin, 2013), the Youth Self Report (YSR) (Spence, 2008) and the Short Mood and Feelings Questionnaire (SMFQ) (Cardamone-Breen et al., 2018; Yap et al., 2018/2019).

Six studies included measures of parental self-efficacy or parenting confidence. Again, measures used varied widely across included studies. The Parental Sense of Competence Scale (PSOC) was utilized in two studies (Alfredsson et al., 2018; Giannotta, Ortega & Stattin, 2013). Other measures used included the Parental Locus of Control Scale (PLOC) (Alfredsson et al., 2018), the Parental Self-Efficacy Scale (PSES) (Chu et al., 2014), the Parenting Beliefs Questionnaire (PBQ) (Low, 2012), the Kansas Parenting Satisfaction Scale (KPSS) (Nitsch et al., 2015) and the Parenting Beliefs Scale (PBS) (Ralph and Sanders, 2003).

Table 1.3: Effects of interventions

Study	Study design	Outcome measures	Follow-up	Results
Alfredsson et al., (2018)	Naturalistic.	Parental locus of Control Scale (PLOC) and Parental Sense of Competence Scale (PSOC) combined as ‘Parent’s negative attitudes’; Strengths and Difficulties Questionnaire (SDQ) – Total Difficulties.	Baseline; post-intervention; one-year follow-up.	Significant small to moderate within group differences observed in all outcomes across all parenting programs. Active Parenting Parents’ negative attitudes: d=0.38 at post-intervention; d=0.41 at 1-year follow-up. SDQ: d=0.23 at post-intervention; 0.16 at 1-year follow-up. Connect Parents’ negative attitudes: d=0.50 at post-intervention; d=0.50 at 1-year follow-up. SDQ no effect post-intervention, but significant reduction at 1-year follow-up: d=0.00 at post-intervention; d=0.21 at 1-year follow-up. COPE Parents’ negative attitudes: d=0.31 at post-intervention; d=0.31 at 1-year follow-up. SDQ: Negligible changes at post- intervention (d=0.01) and 1-year follow-up (d=0.08).
Ballester et al., (2020)	Quasi-experimental design.	Behaviour Assessment System for Children and Adolescents (BASC). Includes Parent Rating Scales (PRS) – measures parent-report of adolescent depression, anxiety, somatization and whole internalizing symptoms	Baseline; post-intervention; 6-month follow-up.	Significant between group differences observed in parent measures only. PRS Anxiety: d=0.30. Effects stable at 6-month follow-up. PRS Depression: No significant change post-intervention, but significant reduction observed at 6-month follow-up (d=0.24). PRS Global Internalizing Problems: d=0.3. 6-month

		scale (combination of first three). Also includes Self-Report of Personality (SRP) – measures adolescent report of anxiety and depression.		follow-up data unavailable due to reduction in sample.
Buttigieg et al. (2015)	Longitudinal follow-up of RCT.	Centre for Epidemiological Studies – Depression Scale (CES-D) – adolescent report.	Baseline; post-intervention and 13-month follow-up.	No significant between group differences in CES-D scores. <i>N.B. CES-D scores were significantly higher for intervention group than control at baseline.</i>
Cardamone-Breen et al. (2018)	Randomized control trial.	The Parenting to Reduce Adolescent Depression and Anxiety Scale (PRADAS) PRADAS-Adolescent report (PRADAS-A). Spence Children’s Anxiety Scale (SCAS) – parent and adolescent report. Short Mood and Feelings Questionnaire (SMFQ) – parent and adolescent report.	Baseline; 1-month post-intervention and 3-month follow-up.	Significant between group differences in PRADAS scores at 1-month (d=0.30) and 3-month follow-up (d=0.33). No significant changes in PRADAS-A, SCAS or SMFQ scores.
Chu et al. (2014)	Randomized control trial.	Parental Self-Efficacy Scale (PSES). Strength and Difficulties Questionnaire (SDQ) – parent and adolescent report. Rosenberg Self-Esteem Scale (RSES) – adolescent report.	Baseline; post-intervention and 6-month follow-up.	Significant between group differences in parent measures only. PSES: d=1.05; d=0.24 at follow-up. SDQ (Parent): d=1.05 post-intervention; d=0.50 at follow-up.

Giannotta, Ortega & Stattin (2013)	Quasi-experimental design.	Parenting Sense of Competence Scale (PSOC) Eyberg Child Behaviour Inventory (ECBI).	Baseline; 10-week follow-up	No significant between group differences observed in PSOC or ECBI.
Kehoe et al. (2014)	Randomized control trial.	Spence Child Anxiety Scale (SCAS) – parent and adolescent report. Child Depression Inventory (short-form) – parent and adolescent report.	Baseline; 10-month follow-up.	Significant between group differences in parent measures only at follow-up. SCAS: $d=0.46$ CDI: $d=0.46$.
Low (2012)	Quasi-experimental design.	Parenting beliefs questionnaire (PBQ), SDQ-parent report.	Baseline; Post-intervention.	No significant between group differences were observed in PBQ or SDQ.
Nitsch et al. (2015)	Randomized control trial.	SDQ-parent report; Kansas Parenting Satisfaction Scale (KPSS).	Baseline; post-intervention; 6-month follow-up.	Significant between group differences observed in KPSS and SDQ (Total and Emotion score). KPSS: $d=0.91$ post-intervention; $d=0.76$ at follow-up. SDQ Total: $d=1.2$ post-intervention; $d=0.84$ at follow-up. SDQ Emotion: $d=0.99$ post-intervention; $d=1.5$. <i>NB. SDQ Emotion scores were significantly higher in intervention group than control at baseline.</i>
Ralph & Sanders (2003)	Pilot study using within group pre - and post- measures.	Parenting Beliefs Scale (PBS) – includes personal agency, self-efficacy, self-sufficiency and self-management subscales.	Baseline; post-intervention.	Significant within group differences in parental self-efficacy ($d=0.94$), self-sufficiency ($d=0.64$) and self-management ($d=0.81$). No significant differences were observed in personal agency.
Spence (2008)	Pre- and post-measures within group design.	Youth Self Report (YSR) - completed by adolescent only.	Baseline; 3-weeks post-intervention.	No significant within group differences were found on the YSR.

Wetterborg et al. (2019)	Pilot RCT.	SDQ – Emotional symptoms – parent report.	Baseline; post-intervention; 6–9-month follow-up.	Significant between group difference observed in SDQ Emotion scores at post-intervention ($d=0.40$). No significant within group differences were observed between post-intervention and follow-up scores for intervention group, indicating that changes were sustained at follow-up.
Yap et al. (2018/2019)	RCT with longitudinal follow-up.	The Parenting to Reduce Adolescent Depression and Anxiety Scale (PRADAS) PRADAS-Adolescent report (PRADAS-A). Spence Children’s Anxiety Scale (SCAS) – parent and child report. Short Mood and Feelings Questionnaire (SMFQ) – parent and child report.	Baseline; post-intervention, 12-month follow-up.	Significant between group differences observed in the PRADAS at post-intervention ($d=0.27$), which were sustained at follow-up ($d=0.21$). No significant changes were observed on the PRADAS-A, SCAS or SMFQ. Both intervention and control groups showed decreases in symptoms of anxiety, but changes were not significant.

Longitudinal follow-up

The majority of studies collated some form of longitudinal data, with the exceptions being Low (2012) and Ralph & Sanders (2003) who collected data at baseline and post-intervention only. The length of follow-up time varied across studies, ranging from 3-weeks (Spence, 2008) to 13-months post-intervention (Buttigieg et al., 2015). The majority of studies had a follow-up period between three-to-six-months post-intervention (Ballester et al., 2020; Cardamone-Breen et al., 2018; Chu et al., 2014; Nitsch et al., 2015; Wetterborg et al., 2019). Four studies had a longer follow-up period between 10-13-months post-intervention (Alfredsson et al., 2018; Buttigieg et al., 2018; Kehoe et al., 2014; Yap et al., 2018/2019).

Studies trialling interventions based on social learning theory (n=5; Chu et al. 2014; Ralph & Sanders, 2003; Alfredsson et al., 2018; Low, 2012; Nitsch et al., 2015).

Three of the studies that trialled interventions based on social learning theory used a control group to test between group differences (Chu et al., 2014; Low, 2012; Nitsch et al., 2015), and two studies assessed pre-post within-group differences (Ralph & Sanders, 2003; Alfredsson et al., 2018). In the studies that included control groups, two studies reported significant between-group effects in measures of child internalizing symptoms. Two studies reported significant improvements on the SDQ-Parent report post-intervention with large between-group effect sizes ($d=1.05$, $d=1.2$). Nitsch et al. (2015) reported a large between-group effect was maintained at follow-up ($d=0.99$), but Chu et al. (2014) reported this had reduced to a small between-group effect at follow-up ($d=0.24$). Chu et al. (2014) included an adolescent measure of internalizing symptoms (SDQ-Adolescent report), but no significant effects were found between groups at post-intervention or follow-up. Low (2012) did not find any significant effects between groups. One study used a pre-post measure design and

reported significant improvement on SDQ-Parent scores, but the within-group effect size was negligible ($d=0.01$) (Alfredsson et al., 2018).

Four studies reported significant improvements on measures of parental self-efficacy and parenting confidence. In studies that used a control group, Chu et al. (2014) and Nitsch et al. (2015) reported initial large between-group effect sizes immediately post-intervention ($d=1.05$; $d=0.91$) which reduced to a small and medium between-group effect at follow-up ($d=0.24$; $d=0.76$ respectively). Low (2012) found no significant between-group effects on parent outcomes. In studies that employed pre-post measures designs, Alfredsson et al. (2018) observed significant improvements on the PLOC and PSOS with a small within-group effect ($d=0.31$), which was maintained at follow up. Ralph & Sanders (2003) reported significant improvements in parental self-efficacy ($d=0.94$), self-sufficiency ($d=0.64$) and self-management ($d=0.81$). However, these results should be interpreted with caution as there was no follow-up data and this was rated as a poor-quality paper.

Studies trialling interventions based on attachment theory ($n=4$; Alfredsson et al., 2018 - evaluated two attachment-based interventions; Giannotta, Ortega & Stattin, 2013; Buttigieg et al., 2015; Spence, 2008).

Only one study reported significant improvements in child internalizing symptoms and parental self-efficacy and confidence. Using a pre-post measures design, Alfredsson et al. (2018) found small but significant improvements on the SDQ post-intervention for parents who engaged in the Active Parenting intervention ($d=0.23$) but found the within-group effect had reduced at follow-up ($d=0.16$). They also found small but significant positive within-

group effects in ‘parents’ negative attitudes’ (combination of the PLOC and PSOC measures) post-intervention ($d=0.38$) and at follow-up ($d=0.41$). For the Connect intervention, they found no significant effects on SDQ post-intervention but found a small within-group effect at follow-up ($d=0.21$). They also found a significant improvement in ‘parents’ negative attitudes’ post-intervention ($d=0.50$) which was maintained at follow-up. These results should be interpreted with caution as the Alfredsson et al. (2018) study did not have a control group. The other studies that used RCT and quasi-experimental designs did not find that attachment-based interventions produced any between-group effects on measures of adolescent internalizing symptoms or parental self-efficacy.

Studies trialling online interventions ($n=3$; Cardamone-Breen, 2018; Yap et al., 2018/2019; Wetterborg et al., 2019).

All three studies used a control group to measure between-group differences. All of the studies found significant improvements in measures of adolescent internalizing symptoms. Cardamone-Breen et al. (2018) and Yap et al. (2018/2019) used the PRADAS and found small-to-medium significant between group effects post-intervention ($d=0.30$; $d=0.27$), which were maintained at follow-up ($d=0.33$; $d=0.21$). Wetterborg et al (2019) reported a small but significant effect between groups on the SDQ-Emotional symptoms scale at post-intervention ($d=0.40$) which was maintained at follow-up. Across studies, no significant changes were found in the PRADAS-A (Adolescent report), the SCAS or the SMFQ. None of the studies included measures of parental self-efficacy.

Studies trialling other interventions (n=2; Ballester et al., 2020; Kehoe et al., 2014).

Ballester et al. (2020) found the Strengthening Families Program produced small but significant between-groups effects in the parent-report BASC anxiety subscale ($d=0.28$). This effect was stable at follow-up. Small but significant between-group effects were noted on the parent-report BASC global internalizing problems scale at post-intervention ($d=0.30$), but follow-up data was unavailable due to participant drop-out. No significant changes were found on the BASC anxiety or depression subscales on adolescent self-report measures. Following participation in the Tuning into Teens intervention, Kehoe et al. (2014) reported small but significant between-group effects were found in parent-reported anxiety and depressive symptoms ($d=0.46$ for both). Post-intervention data was not reported in this study so results were a comparison of pre-intervention and 10-month follow-up data. No significant changes were found between-groups in adolescent-reported measures of anxiety and depressive symptoms.

Discussion

This systematic review identified 14 papers that evaluated a range of universal parenting interventions, which aimed to prevent or reduce internalizing symptoms in adolescents. These were analysed as 13 studies as two papers referred to the initial and follow-up periods of the same study (Yap et al., 2018; Yap et al., 2019). A number of interventions also aimed to improve parental self-efficacy and confidence in parenting. Interventions were heterogeneous, and were based on a variety of psychological theories and models, including social learning theory, attachment theory, family systems theory and mindfulness. None of the interventions used content based on Cognitive-Behavioural Therapy (CBT), despite CBT being recommended in national treatment guidelines for helping adolescents with low mood and anxiety (National Institute for Health and Care Excellence [NICE], 2014; NICE, 2019).

Overall, the results of the current review suggest that effectiveness of universal parenting interventions for adolescents is mixed. A total of eight studies reported positive outcomes in at least one measure of adolescent internalizing symptoms, seven of which used a between-groups experimental design. Between-group effect sizes ranged from large (Nitsch et al., 2015; Chu et al., 2014) to small (Yap et al., 2018/2019). One study used a pre-post measures design and reported positive outcomes in child internalizing measures, but within group effect sizes were extremely small/negligible (Alfredsson et al., 2018). Smaller effect sizes appeared to remain stable across time, whilst large effects were observed to reduce significantly at longitudinal follow-up (Nitsch et al., 2015; Chu et al., 2014). Four studies failed to find any significant improvements in adolescent internalizing symptoms, although in one study, depression scores that were significantly higher in the intervention group at

baseline were not significantly different from the control group post-intervention (Buttigieg et al., 2015), suggesting that high-scorers may have experienced increased benefits from the intervention. Notably, across all studies that included multi-informant measures of adolescent internalizing symptoms (i.e., both parent and adolescent-report), significant effects were found in parent-report measures only. No significant intervention effects were found in any of the adolescent-reported measures across all studies. Although this limits the conclusions that could be drawn about the effectiveness of universal parenting interventions, it highlights the importance of studies including multi-informant measures to ensure reliability of results.

With regards to improving parental self-efficacy and confidence in parenting, four studies reported that universal parenting interventions produced positive outcomes on at least one measure. Two of these studies used experimental and control groups and reported large between-group effect sizes (Chu et al., 2015; Nitsch et al., 2015). The other two studies used pre-post measures designs and reported effect sizes ranging from large (Ralph & Sanders, 2003) to small (Alfredsson et al., 2018). Of the studies that included longitudinal follow-up data, between-group effect sizes were found to reduce considerably at follow-up (Chu et al., 2014; Nitsch et al., 2015). Two studies found that interventions produced no significant between-group effects on parent measures of self-efficacy and confidence at post-treatment (Low, 2012; Giannotta, Ortega & Stattin, 2013). Given the negative impact that poor parental self-efficacy can have on adolescent wellbeing (Bodalski et al., 2023), future studies should consider including measures of parental self-efficacy and confidence to determine whether these interventions can produce positive outcomes in this area.

When considering the characteristics of interventions that showed promise for improving adolescent internalizing symptoms and/or parental self-efficacy, it is important to take into account the methodological quality of included studies. All of the studies of internet-based interventions were considered to be high quality and utilized between-group study designs. Their findings suggested that these interventions, which could be tailored to parents' individual needs following baseline assessments, produced small-to-medium positive effects in improving child internalizing symptoms, at least on parent-reported measures. Positive outcomes were also sustained at follow-up across all studies. Internet-based interventions may offer a cost-effective and time-efficient option for parents, as these interventions were completed in parents' own time, in their own home, and facilitator involvement was minimal following the initial recruitment and assessment stage. Although the results of these interventions are promising, it is important to note that only three internet-based interventions were included in this review, which included two different interventions. This limits the conclusions that can be drawn around the effectiveness of internet-based universal parenting programs at present, but further research in this area is warranted.

The results from other types of interventions appeared to be mixed. Some studies of interventions based on social learning theory reported positive adolescent and parent outcomes with medium-to-large between-group effect sizes (Chu et al., 2014; Nitsch et al., 2015), but others found negligible effects or no significant effects on outcomes (Alfredsson et al., 2018, Low, 2012). The methodological quality ratings of this group were particularly heterogeneous, with studies ranging from high quality (Nitsch et al., 2015) to poor quality (Ralph & Sanders, 2003; Low, 2012). Some studies used RCT or quasi-experimental designs

that utilized a control group to produce more reliable results, whilst others used pre-post measures designs. There did not appear to be any consistent pattern as to whether more robust study designs produced more consistent outcomes. As such, it remains unclear whether interventions based on social learning theory are helpful for parents of adolescents.

The studies of attachment-based interventions did not indicate that these interventions were effective for improving internalizing symptoms in adolescents or parental self-efficacy and confidence. Only one of these studies found any significant effects (Alfredsson et al., 2018), which reported small within-group effect sizes for both adolescent and parent outcomes, but as this study did not utilize a control group these results may be unreliable. These findings contradict the results of a previous review on this topic (Jugovac et al., 2022) but this review also considered interventions aimed at parents of younger children (from birth to 18-years-old). As such, it is possible that attachment-based interventions are more effective for parents of younger children than adolescents, but it is beyond the scope of this review to consider further factors that may have impacted on these results.

Two further interventions appeared to show promise in improving adolescent internalizing symptoms, but were limited by the lack of research in their areas. Namely, these interventions were the mindfulness-based Tuning in to Teens and the Strengthening Families Program, which is based on family systems theory (Kehoe et al., 2014; Ballester et al., 2020). Both studies of these interventions found significant improvements in parent-reports of adolescent internalizing symptoms in intervention groups compared to control groups, but further research is required before any conclusions can be made regarding their effectiveness.

Common limitations across studies were the over-representation of mothers/female caregivers across samples, which limits the generalizability of results for fathers/male caregivers accessing universal parenting programs. Similarly, all studies evaluated interventions developed or adapted for their own country's population, so the results of individual studies may not be generalizable across different countries and cultures. Additionally, it is imperative that preventative research studies assess long-term effects, given a primary aim of these studies is to prevent future problems. Although it was positive that most studies attempted to assess long-term changes, longitudinal follow-up was limited to a maximum of 13-months post-intervention. This may have been insufficient time to evaluate long-term prevention of internalizing symptoms in adolescents, particularly given the rapid nature of developmental changes during adolescence (Patton et al., 2016). There was also wide variability regarding the measures used to assess adolescent internalizing symptoms and parental self-efficacy and confidence. Measurement issues are common in universal population studies, as floor effects often exist in tools designed to measure the extent of existing mental health symptoms (Mackenzie & Williams, 2018). As such, it is possible that despite non-significant findings reported in many of the studies, interventions may have successfully prevented the development of future internalizing symptoms, which was not evident due to the measurement methods used. Although the use of longer follow-up periods could be beneficial, it is important to recognise that this is often unfeasible in universal preventative studies due to participant attrition, which was evident even in the short follow-up periods of studies included in this review (e.g., Ballester et al., 2020).

Strengths and limitations

This systematic review was the first to examine the effectiveness of universal parenting interventions for reducing and preventing internalizing symptoms specifically in adolescents. It also considered parental factors by investigating the intervention effects on parental self-efficacy and parenting confidence. The review encompassed all study designs and the protocol was pre-registered on Open Science Framework before database searches were conducted to ensure the study methodology was transparent.

The review has several limitations that are important to note. Only studies that considered adolescent internalizing symptoms and/or parental self-efficacy and confidence a primary outcome were eligible for inclusion in the review, meaning that many relevant studies were potentially excluded if this was a secondary outcome. Additionally, although the review aimed to consider interventions for parents of 12–18-year-olds, it was difficult to differentiate data for this age group when many of the included interventions targeted parents of children as young as 10 years-old. The decision was made to include studies that specified they were aimed at adolescents, but it is possible that inclusion of these studies may have impacted on the review findings. A further limitation was that for the purposes of the narrative synthesis, interventions were categorized into broad categories of interventions based on their theoretical basis/modality, but within these groups interventions varied considerably. Finally, it is important to note that studies were not excluded from this review on the basis of a poor-quality CCAT rating, due to the paucity of research in this area. Therefore, the conclusions of this review should be interpreted with caution.

Recommendations for future research

Future research would benefit from employing experimental designs which utilize active control groups, as all experimental studies in the current review used a waitlist control. It may also be beneficial for future studies to gather longitudinal data at longer time-points than the studies included in this review, to determine whether these interventions are truly effective in preventing internalizing symptoms in adolescents. This review stressed the importance of studies collating data from multi-informants, and future studies should obtain data from parents and adolescents as a minimum to obtain more reliable results. This review highlighted that internet-based interventions may be an effective method of delivering parenting interventions for parents of adolescents, but further research is required using more diverse samples. Due to the heterogeneity of studies, it was not possible to conclude whether interventions based on social learning theory, mindfulness and family systems theory are effective for parents of adolescents. No studies utilized a CBT-based approach, despite the growing evidence-base and recommendation of CBT-based approaches for treating anxiety and depression in adolescents (NICE, 2014; NICE, 2019). Further research is therefore recommended within these areas. Future studies would also benefit from targeting fathers and male caregivers, as this group is not currently represented by the data that is available.

Conclusion

This review explored whether universal parenting interventions are effective in reducing and preventing internalizing symptoms in adolescents. It also explored whether these interventions are effective in improving parental self-efficacy and confidence in parenting. The available literature suggests that universal parenting interventions may produce positive

effects for adolescent internalizing symptoms, with multi-model internet-based interventions producing particularly promising results. However, there is a need for more robust, high-quality research in this area before conclusions can be confidently drawn.

References

Alfredsson, E. K., Thorvaldsson, V., Axberg, U., & Broberg, A. G. (2018). Parenting programs during adolescence: Outcomes from universal and targeted interventions offered in real-world settings. *Scandinavian Journal of Psychology*, *59*(4), 378-391.

Ballester, L., Sánchez-Prieto, L., Orte, C., & Vives, M. (2020). Preventing Internalizing and Externalizing Symptoms in Adolescents Through a Short Prevention Programme: An Analysis of the Effectiveness of the Universal Strengthening Families Program 11-14. *Child and Adolescent Social Work Journal*, 1-13.

Barlow, J., Smailagic, N., Bennett, C., Huband, N., Jones, H., & Coren, E. (2011). Individual and group-based parenting programmes for improving psychosocial outcomes for teenage parents and their children. *Cochrane Database of Systematic Reviews*, (3).

Bodalski, E. A., Joshua Bradley, W., Neger, E., Shi, D., Bridges, R., & Flory, K. (2023). Parenting Self-Efficacy and Internalizing/Externalizing Problems: Child Age as a Moderator. *Journal of Child and Family Studies*, *32*(4), 1138-1147.

Bor, W., Dean, A. J., Najman, J., & Hayatbakhsh, R. (2014). Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australian & New Zealand Journal of Psychiatry, 48*(7), 606-616.

Butler, J., Gregg, L., Calam, R., & Wittkowski, A. (2020). Parents' perceptions and experiences of parenting programmes: A systematic review and metasynthesis of the qualitative literature. *Clinical Child and Family Psychology Review, 23*, 176-204.

Buttigieg, J. P., Shortt, A. L., Slaviero, T. M., Hutchinson, D., Kremer, P., & Toumbourou, J. W. (2015). A longitudinal evaluation of the Resilient Families randomized trial to prevent early adolescent depressive symptoms. *Journal of Adolescence, 44*, 204-213.

Cardamone-Breen, M. C., Jorm, A. F., Lawrence, K. A., Rapee, R. M., Mackinnon, A. J., & Yap, M. B. H. (2018). A Single-Session, Web-Based Parenting Intervention to Prevent Adolescent Depression and Anxiety Disorders: Randomized Controlled Trial. *Journal of Medical Internet Research, 20*(4), e148.

Chu, J. T. W., Bullen, P., Farruggia, S. P., Dittman, C. K., & Sanders, M. R. (2015). Parent and Adolescent Effects of a Universal Group Program for the Parenting of Adolescents. *Prevention Science, 16*, 609-620.

Crowe, M., & Sheppard, L. (2011). A review of critical appraisal tools show they lack rigor: Alternative tool structure is proposed. *Journal of Clinical Epidemiology, 64*(1), 79-89.

Faber, T., Ravaud, P., Riveros, C., Perrodeau, E., & Dechartres, A. (2016). Meta-analyses including non-randomized studies of therapeutic interventions: a methodological review. *BMC Medical Research Methodology*, *16*(1), 1-25.

Giannotta, F., Ortega, E., & Stattin, H. (2013). An Attachment Parenting Intervention to Prevent Adolescents' Problem Behaviours: A Pilot Study in Italy. *Child & Youth Care Forum*, *42*, 71-85.

Glatz, T., & Buchanan, C. M. (2015). Change and predictors of change in parental self-efficacy from early to middle adolescence. *Developmental Psychology*, *51*(10), 1367.

Jewell, C., Wittkowski, A., & Pratt, D. (2022). The impact of parent-only interventions on child anxiety: A systematic review and meta-analysis. *Journal of Affective Disorders*, *309*, 324-349.

Jugovac, S., O'Kearney, R., Hawes, D. J., & Pasalich, D. S. (2022). Attachment-and emotion-focused parenting interventions for child and adolescent externalizing and internalizing behaviours: A meta-analysis. *Clinical Child and Family Psychology Review*, *25*(4), 754-773.

Kehoe, C. E., Havighurst, S. S., & Harley, A. E. (2014). Tuning in to Teens: Improving Parent Emotion Socialization to Reduce Youth Internalizing Difficulties. *Social Development, 23*(2), 413-431.

Kumpfer, K. L., Xie, J., & O'Driscoll, R. (2012). Effectiveness of a culturally adapted strengthening families program 12–16 years for high-risk Irish families. *Child & Youth Care Forum, 41*, 173-195.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174.

Low, Y. T. (2012). Can Parenting Programme Reduce Parent-Adolescents Conflicts in Hong Kong? *Revista de Cercetare și Intervenție Socială, 42*, 7-27.

Mackenzie, K., & Williams, C. (2018). Universal, school-based interventions to promote mental and emotional well-being: What is being done in the UK and does it work? A systematic review. *BMJ open, 8*(9), e022560.

National Institute for Health and Care Excellence. (2014). *Anxiety disorders*. [NICE Quality Standard 53]. <https://www.nice.org.uk/guidance/qs53/chapter/quality-statement-2-psychological-interventions>.

National Institute for Health and Care Excellence. (2019). *Depression in children and young people: identification and management*. [NICE Guideline 134].

<https://www.nice.org.uk/guidance/ng134/chapter/Recommendations#step-3-managing-mild-depression>.

Nitsch, E., Hannon, G., Rickard, E., Houghton, S., & Sharry, J. (2015). Positive parenting: a randomised controlled trial evaluation of the Parents Plus Adolescent Programme in schools. *Child and Adolescent Psychiatry and Mental Health*, 9, 1-12.

Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & McKenzie, J. E. (2021). PRISMA 2020 explanation and elaboration: updated guidance and exemplars for reporting systematic reviews. *BMJ*, 372.

Patton, G. C., Sawyer, S. M., Santelli, J. S., Ross, D. A., Afifi, R., Allen, N. B., ... & Viner, R. M. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423-2478.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., ... & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. *A product from the ESRC methods programme Version, 1(1)*, b92.

Ralph, A., & Sanders, M. R. (2003). Preliminary evaluation of the Group Teen Triple P program for parents of teenagers making the transition to high school. *Australian E-journal for the Advancement of Mental Health*, 2(3), 169-178.

Ralph, A., & Sanders, M. (2006). The 'Teen Triple P' Positive Parenting Program: A Preliminary Evaluation. *Youth Studies Australia*, 25(2), 41-48.

Sandler, I. N., Schoenfelder, E. N., Wolchik, S. A., & MacKinnon, D. P. (2011). Long-term impact of prevention programs to promote effective parenting: Lasting effects but uncertain processes. *Annual review of psychology*, 62, 299-329.

Solmi, M., Radua, J., Olivola, M., Croce, E., Soardo, L., Salazar de Pablo, G., ... & Fusar-Poli, P. (2022). Age at onset of mental disorders worldwide: large-scale meta-analysis of 192 epidemiological studies. *Molecular psychiatry*, 27(1), 281-295.

Spence, J. A. (2008). *Changes in perception of family environment and self-reported symptom status in adolescents whose parents participate in an Adlerian parent-training intervention* (Doctoral dissertation, Adler School of Professional Psychology).

Wetterborg, D., Enebrink, P., Lönn Rhodin, K., Forster, M., Risto, E., Dahlström, J., ... & Ghaderi, A. (2019). A Pilot Randomized Controlled Trial of Internet-Delivered Parent Training for Parents of Teenagers. *Journal of Family Psychology*, 33(7), 764.

Yap, M. B. H., Mahtani, S., Rapee, R. M., Nicolas, C., Lawrence, K. A., Mackinnon, A., & Jorm, A. F. (2018). A tailored web-based intervention to improve parenting risk and protective factors for adolescent depression and anxiety problems: Postintervention findings from a randomized controlled trial. *Journal of medical Internet research*, 20(1), e17.

Yap, M. B. H., Cardamone-Breen, M. C., Rapee, R. M., Lawrence, K. A., Mackinnon, A. J., Mahtani, S., & Jorm, A. F. (2019). Medium-Term Effects of a Tailored Web-Based Parenting Intervention to Reduce Adolescent Risk of Depression and Anxiety: 12-Month Findings From a Randomized Controlled Trial. *Journal of Medical Internet Research*, *21*(8), e13628.

Yap, M. B., Morgan, A. J., Cairns, K., Jorm, A. F., Hetrick, S. E., & Merry, S. (2016). Parents in prevention: a meta-analysis of randomized controlled trials of parenting interventions to prevent internalizing problems in children from birth to age 18. *Clinical Psychology Review*, *50*, 138-158.

Chapter 2: Major Research Project

A pilot evaluation of life skills training for parents in a Scottish secondary school setting.

Prepared in accordance with the author requirements for the Journal
of Clinical Child & Adolescent Psychology

<https://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=hcap20#style>

Plain English Summary

Title: A pilot evaluation of life skills training for parents in a Scottish secondary school setting.

Background: Mental health problems have become increasingly common in young people in recent years. There is a need for easily accessible mental wellbeing support for young people and their families. Living Life to the Full for Young People (LLTTF-YP) is a programme that fits easily within the school curriculum, which aims to support young people to develop important life skills (Williams, 2016). It is based on the principles of Cognitive-Behavioural Therapy (CBT) and can help young people learn skills to tackle common problems such as stress and low mood.

Recently, a parent version of the programme was developed called *Helping Your Child Live Life to the Full*. It was intended that parents could learn how to support their child to develop these life skills, while their child learned the skills simultaneously during their Personal, Social, Health and Economic (PSHE) classes. Parents attended a two-hour workshop, and were provided with access to online materials and three live monthly Q&A coaching sessions where course materials were discussed.

Aims and Questions:

1. To explore the practical issues of testing this intervention (e.g., how many parents participated and why, how helpful parents found the intervention).
2. To test the suitability of using a questionnaire to measure changes in parental self-efficacy before and after the intervention.

Methods: Parents of first- and third-year pupils in a Scottish secondary school were invited to take part in the study. They were asked to complete questionnaires about themselves, their perceived parental self-efficacy and their child's strengths and difficulties before taking part in the workshop. After the workshop and coaching sessions, parents completed questionnaires that assessed their perceived parental self-efficacy and how helpful they found the intervention. They were also invited to take part in focus groups to provide further feedback on their experience of the intervention. Parents were then asked to complete another questionnaire about how often they use tools from the intervention three months and six months after the intervention ended.

Main findings: Parents reported that they were satisfied with the intervention and found it helpful. A small significant improvement was found in scores of parental self-efficacy after parents had completed the intervention, but further research is required to ensure this is a reliable result. Parents provided feedback on what had motivated them to engage with the intervention, what content they had found helpful, and made recommendations for future improvements.

Conclusion: Overall, this study found that *Helping Your Child Live Life to the Full* could be a helpful intervention for parents of adolescents. The study found it was possible to deliver the intervention within a high school setting and the intervention may help to improve parental self-efficacy in parents who take part. Further research is needed with more participants and a comparison group to determine if results from this study are reliable.

Abstract

Objective: To evaluate the feasibility of a universal parenting intervention for parents of adolescents: *Helping Your Child Live Life to the Full*. The study also aimed to test the feasibility of a primary outcome measure for use in future definitive trials.

Method: The study utilized a pre-post measure, mixed-method design. 85 parents were recruited from a Scottish high school to participate in the intervention, which consisted of a short face-to-face workshop, online teaching sessions and access to an online self-directed course. Questionnaires assessed demographic information about participants and their child and gathered feedback about the intervention. The Brief Parental Self-Efficacy Scale was used to measure parental self-efficacy, and pre-post scores were compared using a Wilcoxon signed-rank test. Focus groups provided qualitative feedback about participants' experience and reflexive thematic analysis was applied to analyse the data.

Results: There were high ratings of satisfaction with the training. Parents provided feedback on their motivation for engaging with the training, aspects they found helpful, and made recommendations for future adaptations. A small significant improvement was found in scores of self-efficacy from baseline to post-intervention. However, these findings should be interpreted with caution due to study limitations. Attrition rates were high which limited the conclusions that could be drawn regarding long-term effects of the intervention.

Conclusion: *Helping Your Child Live Life to the Full* showed good acceptability amongst participants. The results of the current study suggest universal parenting interventions may improve parental self-efficacy for parents of adolescents. Future larger-scale trials with more robust methodologies are required to determine the reliability of these results.

Key words: Universal, parenting, adolescent, intervention, CBT.

Introduction

It is estimated that one in seven young people between the ages of 10 and 19 are currently living with a diagnosed mental health disorder (UNICEF, 2021). Evidence suggests that over recent cohorts of adolescents, the burden of mental health problems such as anxiety and depression have increased rapidly (Bor et al., 2014). Mental health disorders can have significant impact at an individual, social and economic level, and recent research suggests that specialist services such as Child and Adolescent Mental Health Services (CAMHS) have seen referrals increase by 109% since 2019 (Yap et al., 2019; Valentine et al., 2024). This may be due to the impact of the COVID-19 pandemic, which caused additional mental health challenges for young people and increased pressures on mental health services (Cooke et al., 2022). Identifying effective preventative interventions has therefore become a global public health priority (World Health Organization, 2020).

The Scottish Government recognized the importance of early intervention for young people's mental health within the Mental Health Strategy 2017-2027, and more recently promised to provide additional support for the wellbeing of all young people in the aftermath of the pandemic (Scottish Government, 2017; Scottish Government, 2020). This is in line with national guidelines, which recommend secondary schools incorporate a 'whole school approach' to provide evidence-based information about social and emotional wellbeing within the school curriculum (NICE, 2022).

Living Life to the Full Programme

Living Life to the Full for young people (LLTTF-YP) is a school-based program that aims to support young people with common mental health concerns such as stress, anxiety and low mood (Williams, 2016). The program is based on the principles of Cognitive-Behavioural Therapy (CBT), utilises accessible language, colourful handouts and interactive exercises to encourage the development of important life skills for adolescents, and fits easily within the school curriculum. LLTTF-YP has been well received by pupils and staff within Scottish high school settings, and has the potential to be an effective and affordable option for school-based intervention (Boyle et al., 2011; Murray, 2018).

Universal Parenting Interventions

To date, the LLTTF-YP program has focused only on the direct delivery of materials to young people. However, research suggests that parent involvement in CBT-based interventions may produce more sustained improvements in adolescents, due to their ability to make systemic changes in the adolescent's life (Oud et al., 2019; Carr, 2015). Previous reviews have reported that universal parenting interventions can produce improved outcomes for both children and their parents (Barlow et al., 2011; Saunders et al., 2020). Parenting programs such as 'From Timid to Tiger' and 'Teen Triple P' incorporate elements of CBT, and evaluations of these programs have reported improvement in child self-esteem and anxiety, parental self-efficacy and reduction in parent and child conflict (Byrne et al., 2021; Chu et al., 2015).

At present, much of the existing research on universal parenting interventions is heavily focused on interventions for parents of young children under the age of 12. Research specific to parents of adolescents has commonly focused on targeting problematic, risk-taking behaviour rather than preventing mental health difficulties (Sandler et al., 2011; Yap et al., 2019). This is evident within Scotland, where NHS Education for Scotland (NES) initiated the Psychology of Parenting Project (PoPP) in 2013. The aim was to increase the availability of parenting interventions for Scottish families, but interventions such as ‘The Incredible Years’ were aimed exclusively at parents of pre-school children (NES, 2021; Saunders et al., 2020). Therefore, parenting interventions for adolescents are not universally accessible in Scotland, despite their potential to offer a brief, cost-effective treatment option that fits well within a stepped model of care (Butler et al., 2020).

A review of universal parenting programmes by Sanders et al. (2022) highlighted that most parenting interventions are pitched as intensive, tier-three interventions, and instead recommended a more universal population health approach. In theory, this could increase the wellbeing of a greater number of young people and reduce the demand for tier-three services such as CAMHS. They suggested that schools provide an excellent universal access point for engaging both young people and their parents. This argument is supported by evidence from a recent meta-analysis that evaluated school-based mindfulness interventions (Phillips and Mychailyszyn, 2022). The review found mindfulness sessions with young people produced little to no effect on symptoms of depression and anxiety. The review suggested that similar universal, school-based interventions may benefit from taking a more systemic approach to produce improved outcomes for young people.

The Current Study

The LLTTF-YP programme has been shown to produce beneficial effects with young people (Boyle et al., 2011; Mackenzie, 2016; Murray, 2018). However, the content of the LLTTF-YP programme has exclusively focused on the delivery of materials to young people, and a more systemic approach involving parents has not yet been trialled. In order to add to the literature on universal parenting interventions for parents of adolescents, this study evaluated the feasibility of a new intervention aimed at parents – *Helping Your Child Live Life to the Full*.

To evaluate a complex intervention such as a universal, school-based parenting intervention, the Medical Research Council (MRC) framework for developing complex interventions was used. It suggests there are four key stages to consider: 1) development of the intervention, 2) feasibility and piloting, 3) evaluation and 4) implementation (Skivington et al., 2021). These phases may be revisited and repeated if uncertainties about the intervention remain. In keeping with this framework, the current study aimed to evaluate the feasibility of a universal, school-based parenting intervention for parents of adolescents within a Scottish secondary school setting. The framework's definition of a feasibility trial was used to develop the aims below:

Aim 1: To evaluate the feasibility of the intervention.

The primary aim of the current study was to determine the feasibility of evaluating the delivery of life skills training to parents of secondary school aged children within a Scottish

secondary school setting. The study aimed to test the ability to recruit and retain participants throughout each stage of the training and evaluation process, and collate information on the characteristics of participants, their child's perceived level of difficulties (as indicated on the parent-report Strengths and Difficulties Questionnaire) and their reasons for engaging with the training. The study also aimed to assess the acceptability of the training itself through quantitative and qualitative data gathered from participants.

Aim 2: To test the feasibility of primary outcome measure.

A secondary aim of the study was to test the suitability of a primary outcome measure that may be used in future definitive trials. The study aimed to assess whether the Brief Parental Self-Efficacy Scale could detect variability and change within participants who engaged with the intervention.

Methods

Design

A pre-post measures, mixed-method design was used for this study. Questionnaires and outcome measures were collated from participants prior to their engagement with the *Helping Your Child Live Life to the Full* training, immediately following the initial workshop and at 3-months follow up. Questionnaire data was also gathered for the first group of participants at 6-months follow up. The questionnaires measured parental self-efficacy and satisfaction with the training. Participant demographics, recruitment, attendance and follow-up rates were also measured throughout the study to test the feasibility of the evaluation design.

Participants were invited to participate in focus groups at different time points in the study, to provide further qualitative feedback on their experience of engaging with the training. A semi-structured focus group question guide was used to facilitate focus group discussion and reflexive thematic analysis was used to identify key themes that emerged from the data, using recent guidance provided by Braun et al. (2023).

Procedures

Participant Recruitment

Parents of high school students were recruited from a high school in Newton Mearns, East Renfrewshire. The school already delivered Living Life to the Full for Young People within Personal Social Health Education (PSHE) classes and were familiar with the materials. All parents of first year students were invited to participate in December 2022 and January 2023. The training was repeated the following year in September 2023 with new first year and third year parents. Teaching staff emailed parents a flyer for the training a month prior to the workshop dates (see **Appendix 2.2**). This informed parents of the content of the course and that the training would be evaluated as part of a DClinPsy student thesis, so they had an understanding of the event and its purpose before attending the training.

All parents were eligible to take part in the training, including multi-parent households and parents/carers who lived separately. However, participants were instructed that only one parent per child could sign up for the intervention and complete outcome measures, to determine how many participants could be recruited as a proportion of the eligible

population. This also avoided multiple data sets being provided for the same child. All participants were required to be fluent in English as the training was delivered in English.

Ethical Approval

Ethical approval for the study was obtained from the University of Glasgow Medical and Veterinary and Life Sciences ethics committee on 16th November 2022 (application number 200220041, see **Appendix 2.3**). Approval for the study was also granted by the school head teacher and the Psychological Services Professional Leads Group within NHS Ayrshire and Arran. As the study did not involve young people and parent participation was voluntary, additional education system approvals were not required.

Consent

Following the initial flyer invitation, parents were invited to contact the researcher prior to the event if they had questions related to the study or if they wished to obtain a Participant Information Sheet in advance. Participants were provided with a Participant Information Sheet on the evening of the initial workshop as they arrived at the event and were requested to read and sign a consent form prior to participating in the study. All parents had an opportunity to ask questions about the study at the event. Parents who consented to the study were then invited to complete the pre-training questionnaires online or on paper. Parents did not need to participate in the study in order to attend the training workshop. However, only those who consented were given access to the additional online training following the workshops (i.e., the online modules and/or live online coaching sessions). Parents who missed the initial workshop could consent to enter the study after the training workshop was

run in order to access the online training modules and live sessions if they wished. These parents were sent a link to an online secure Qualtrics information sheet and consent form, and once complete were sent a link to the pre-training questionnaires, which were also completed online.

Parents who consented to the study were sent information on how to access the online modules and the online coaching sessions. Online coaching sessions were only offered to the first group of parents due to time constraints of the project. All parents who consented to the study were invited to participate in the focus groups, including those who did not engage in all aspects of the training.

Training Content

The two-hour parent workshop, coaching sessions and online self-directed learning modules were developed and delivered by Professor Chris Williams and Theresa Kelly, Training Implementation Lead for LLTTF. There were three components to the intervention:

1. ***The workshop:*** The initial workshop provided an overview of the program and provided examples of course topics and exercises. It was a didactic presentation that was delivered twice in-person at the school in December 2022 and September 2023 and once online via Zoom® in January 2023.
2. ***Online modules:*** The content of the online course was adapted for parents from materials provided for young people in the LLTTF-YP course. Topics included Understanding Your Child's Feelings, Helping Your Child Change Unhelpful

Thoughts and Helping Your Child Reduce Unhelpful Behaviours. Parents who participated in the research trial were granted access to the online modules following completion of the initial workshop, which provided additional information about course topics. A full list of the topics covered by the online course can be found in **Appendix 2.4**.

3. ***The online coaching sessions:*** The three coaching sessions were delivered on Zoom® between March and April 2023. During coaching sessions, parents had the opportunity to discuss key course topics and ask questions about the materials.

Questionnaires and Outcome Measures

The following measures were selected based on their relevance to the aims of the intervention. Questionnaires were administered by the researcher and were primarily completed online using the secure data collection platform Qualtrics. Paper copies of the questionnaires were available during the in-person workshop.

Brief Parental Self Efficacy Scale (BPSES)

The Brief Parental Self Efficacy Scale (BPSES) (Woolgar et al., 2013) was the primary outcome measure used in the current study. Parents completed the measure pre- and post- the initial workshop, and at 3-month and 6-month follow up. The wording of questions was slightly adapted to better align with the workshop content (see **Appendix 2.5**). The BPSES is a short, 5-item measure of parental self-efficacy which was revised to assess parent confidence in supporting their child's emotional wellbeing. It used a five-point scale where

completers rate items ranging from 1 (strongly disagree) to 5 (strongly agree). It has been demonstrated to have good internal consistency and has been used as a tool for evaluating changes in parent self-efficacy in parent training programmes (Woolgar et al., 2013; Midgley et al., 2018).

Strength and Difficulties Questionnaire (SDQ)

Parents completed the Strengths and Difficulties Questionnaire (SDQ) – Parent Version (Goodman, 1997) before taking part in the training. The SDQ is a brief, 25-item emotional and behavioural screening questionnaire for young people which captures the perspective of parents. It contains four subscales (Emotional, Hyperactivity, Peer-related difficulties and Conduct problems) and an additional scale for Prosocial behaviour. The SDQ uses a three-point scale where completers rate items ranging from 0 to 2 (not true to certainly true, where some items are reverse-scored). Total scores range between 0-40 and a score of above 17 indicates a potential clinical level of difficulty. The SDQ has demonstrated good internal consistency and concurrent validity and is a widely and internationally used measure for assessing young people's mental health (Goodman, 2001; Muris, Meesters & Van den Berg, 2003).

Demographic Questionnaire

Prior to the workshop, parents completed a demographic information questionnaire, which gathered information including parent age, gender, ethnicity and whether they completed the intervention alone or accompanied by another parent/carer of their child.

Feedback Questionnaire

Parents completed a short feedback questionnaire following the initial training workshop, and also at 3-months and 6-months follow-up. Data was not gathered at 6-months follow-up from the second group of participants due to the time constraints of the project. The questionnaires used six-point Likert scale questions related to how helpful the participant found the materials and whether they would recommend the intervention to others.

Statistical analysis

Descriptive statistics were used to describe participant attendance, sample demographics and the child's perceived level of difficulty, as measured by the SDQ. Tests of normality were conducted on the distribution of data for the primary outcome measure, the Brief Parental Self Efficacy Scale (BPSES). Histogram distribution and Kolmogorov-Smirnov statistic suggested that the assumptions of normality were not met, therefore non-parametric testing was used. Results from the BPSES were assessed pre- and post- intervention using a Wilcoxon signed-rank test. Statistics including the median and interquartile range were reported and a histogram was used to visualize pre- and post-intervention scores. Descriptive statistics were used to assess parent's acceptability and satisfaction with the training based on their feedback questionnaires.

Focus groups

Qualitative feedback was gathered from participants via focus groups. All parents who participated in the study were invited to take part in the focus groups, and were given the option of opting in or out of this on the consent form. The first focus group was facilitated

online via Zoom[®] in June 2023 by the primary researcher. Two additional focus groups were conducted in person during the live workshop in September 2023 by the primary researcher and the workshop facilitator (TK). Parents were invited to contact the primary researcher to request an individual interview if they would prefer to give feedback outside of a group setting.

A semi-structured question guide was used to facilitate focus group discussions (see **Appendix 2.6**). The focus groups were recorded using an encrypted recording device provided by the University of Glasgow. Focus group data was transcribed and anonymized within one week of data collection, and the recording was then permanently deleted. Reflexive thematic analysis was used to analyse qualitative data from the feedback questionnaires and focus groups. Transcripts were analysed using the six-step procedure outlined by Braun et al., (2023). The initial phase involved reading the transcripts repeatedly so the researcher could familiarize with the data. The second phase involved the initial coding of the data, where interesting and important part of data were highlighted and a code label was assigned to capture key concepts. In the third phase, initial themes were generated to identify patterns in the collated codes, which were then reviewed and refined in phase four where the data was re-read and reviewed to ensure key data was not missed from the themes that had been identified. Phase five and six involved further refining, defining and naming of themes and writing up the results of the analysis.

Results

Recruitment and attendance rates

Parents of 773 pupils from across three different year groups were invited to participate in the study, including the 2021, 2022 and 2023 cohorts. 85 consented to take part in total (11% uptake rate). The first group of parents who consented to the study were offered the opportunity to attend three additional coaching sessions following the initial workshop (n=28). Attendance varied between 6-11 parents attending each workshop.

In total, 15 parents had signed up for and accessed the online modules by December 2023 (17.7% of total consenting parents). Parents could access the online course up to a year following their attendance at the initial workshop.

Questionnaire completion

The pre-training demographic questionnaire, SDQ and BPSES were completed by 75 participants in total. 67 participants completed post-training questionnaires. Some data was lost during the first parent workshop due to internet connection issues within the school, as many parents opted to complete the questionnaires on their phone using the electronic Qualtrics version. During the data collection several parents reported problems with obtaining a phone signal within the school, and these parents were offered the option to complete paper questionnaires instead. Paper copies of the questionnaires were issued to all participants during the second parent workshop to prevent further data loss. Excluding datasets with

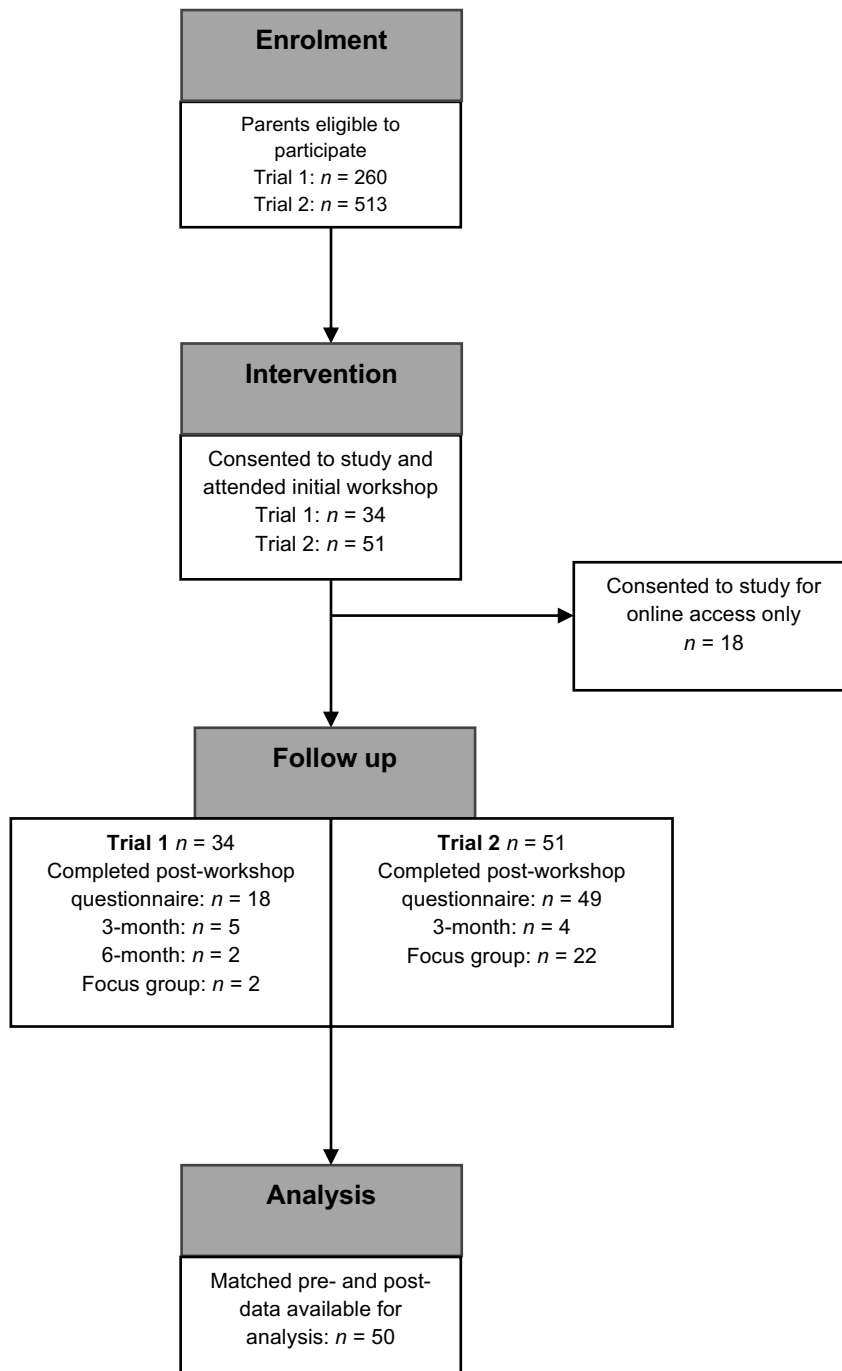
missing data, 50 full sets of pre and post outcome measure data were available for statistical analysis from the initial workshop.

Participants were also invited to provide further feedback at 3-month and 6-month follow-up.

A visual summary of participant retention throughout the study is displayed below in **Figure**

2.1.

Figure 2.1: Participant flow chart



Sample characteristics

Demographic data for participants are outlined in **Table 2.1**. The majority of the parents were aged between 40 – 50 (70.1%), female (69.7%) and attended the training alone (69.7%).

Table 2.1: Demographic data at baseline

Variable: Number of completed data (Missing data)	Number of participants (% of respondents)
Age: N=77 (8)	
Between 30 - 40	11 (14.3%)
Between 40 - 50	54 (70.1%)
Over 50	12 (15.6%)
Gender: N=76 (9)	
Male	23 (30.3%)
Female	53 (69.7%)
Ethnicity: N=77 (8)	
Arab	1 (1.3%)
Asian or Asian British	28 (36.4%)
Black or Black British	1 (1.3%)
Mixed Race	1 (1.3%)
Other	1 (1.3%)
White British	37 (48.1%)
White Other	8 (10.4%)

Child year group: N=85 (0)	
S1	67 (78.8%)
S3	18 (21.2%)
Attended training alone or accompanied: N=76 (9)	
Alone	53 (69.7%)
Accompanied by another parent of their child	20 (26.3%)
Accompanied by another family member	2 (2.6%)
Prefer not to say	1 (1.3%)

Baseline SDQ scores indicated that 14 parents (18.7% of total sample) reported that their child demonstrated high or extremely high levels of total difficulties. A breakdown of scores for SDQ subscales is outlined in **Table 2.2**.

Table 2.2: SDQ scores at baseline

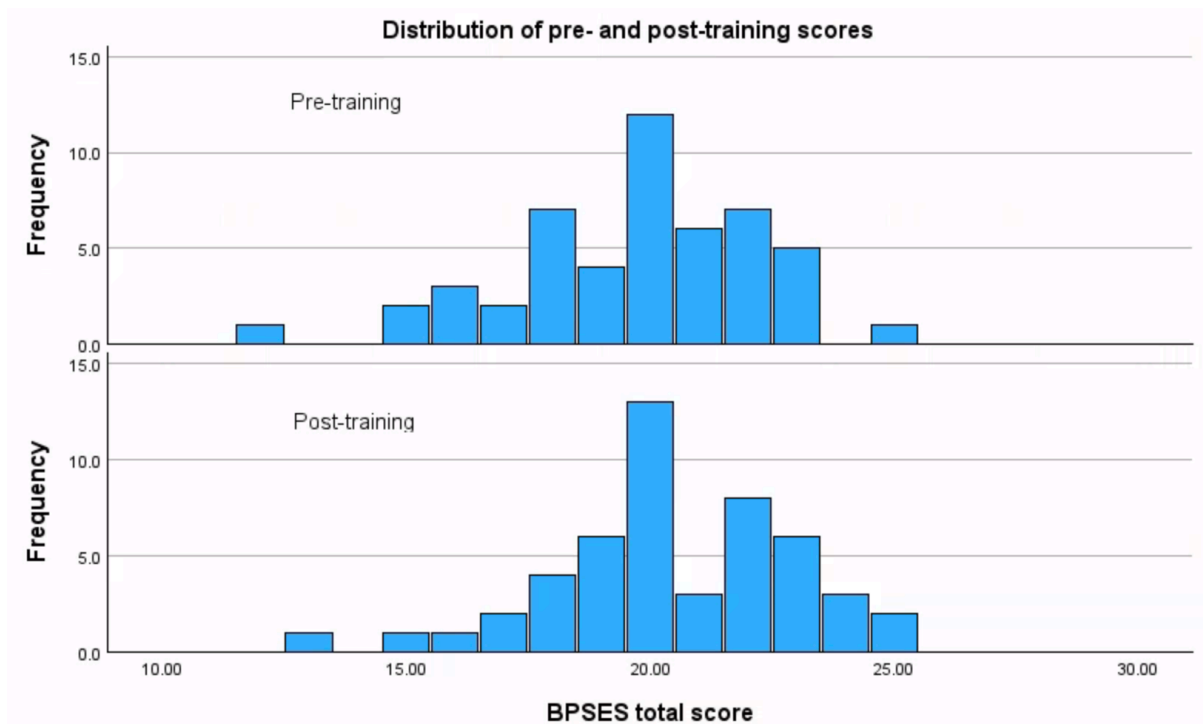
SDQ Subscale	Number of High/Very High Scorers	
N=75	Mean Score (SD)	(Percentage of Sample)
Total difficulties	8.39 (7.94)	14 (18.7%)
Emotional problems	2.36 (1.65)	17 (22.7%)
Conduct problems	1.65 (1.97)	14 (18.7%)

Hyperactivity	2.63 (2.51)	2 (2.7%)
Peer problems	1.77 (1.96)	8 (10.7%)
Prosocial	5.23 (3.89)	27 (36%)

Primary outcome measure

Tests of normality were conducted on the distribution of data for the primary outcome measure, the Brief Parental Self Efficacy Scale (BPSES). Histogram distribution and Kolmogorov-Smirnov statistic suggested that the assumptions of normality were not met, therefore non-parametric testing was used. A Wilcoxon Signed-Rank Test revealed a statistically significant improvement in participants scores on the BPSES following completion of the training workshop, $z = 3.57$, $n = 50$, $p < .001$ 95% CI [0.5, 1.0], with a small effect size ($r = 0.36$). Median scores on the BPSES did not change between pre- and post-training (pre-training $Md = 20$, IQR = 18-22; post-training $Md = 20$, IQR = 19-22). The distribution of pre- and post-training scores suggested that there were minimal changes in the BPSES scores overall, with the majority of participants retaining similar scores pre- and post-training. A histogram displaying the distribution of scores is displayed below in **Figure 2.2**.

Figure 2.2: Distribution of pre- and post-training BPSES scores.



High scorers

A chi-square analysis was conducted to investigate levels of satisfaction with the program amongst ‘high scorers’ on the SDQ (i.e., those whose children were perceived as currently distressed). Participants who scored 17+ on the SDQ ‘total difficulties’ subscale were categorized as ‘high scorers’ and those who scored 16 and below were categorized as average scorers. Parents’ scores of satisfaction with the intervention were categorized into ‘extremely satisfied’ and ‘less than extremely satisfied’ (i.e., moderately or slightly satisfied, as all participants indicated they were at least slightly satisfied with the program). A chi-square test for independence (with Yates’ continuity correction) indicated no significant association

between SDQ total difficulty scores and levels of program satisfaction, $\chi^2 (1, n = 57) = 0.54$, $p = 0.46$, $\phi = 0.14$.

Training acceptability and satisfaction

Participants completed training feedback questionnaires following the initial workshop.

Parents reported high levels of satisfaction with the training overall, with all parents reporting that they were slightly, moderately or extremely satisfied with the training (see **Figure 2.2**).

From the post-workshop evaluations, 100% of parents reported that they slightly, moderately or strongly agreed that the approach was appropriate for using with their child (n = 67); 98.5% indicated that the information they had learned would be helpful for using with their child (n = 67); 95.5% felt the training was in line with their expectations (n = 66); 97% reported that the training had offered useful skills they would use themselves (n = 67); 98.5% felt that the training covered the topics it set out to cover (n = 65); and 98.4% would recommend the training to others (n = 64). This data is summarised in the graph displayed in **Figure 2.3**.

Figure 2.2: Parent-reported levels of satisfaction with the training

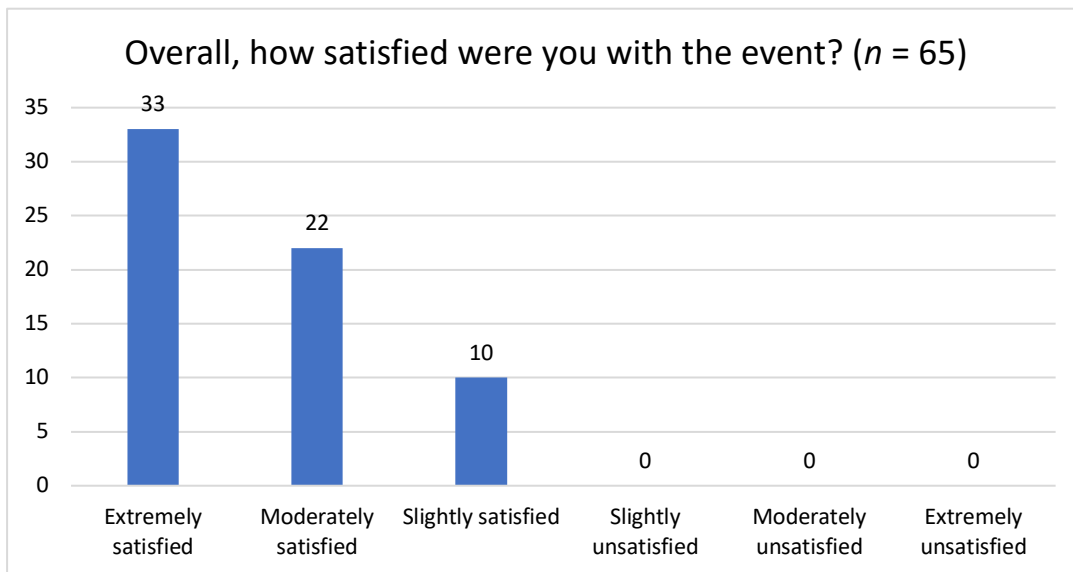
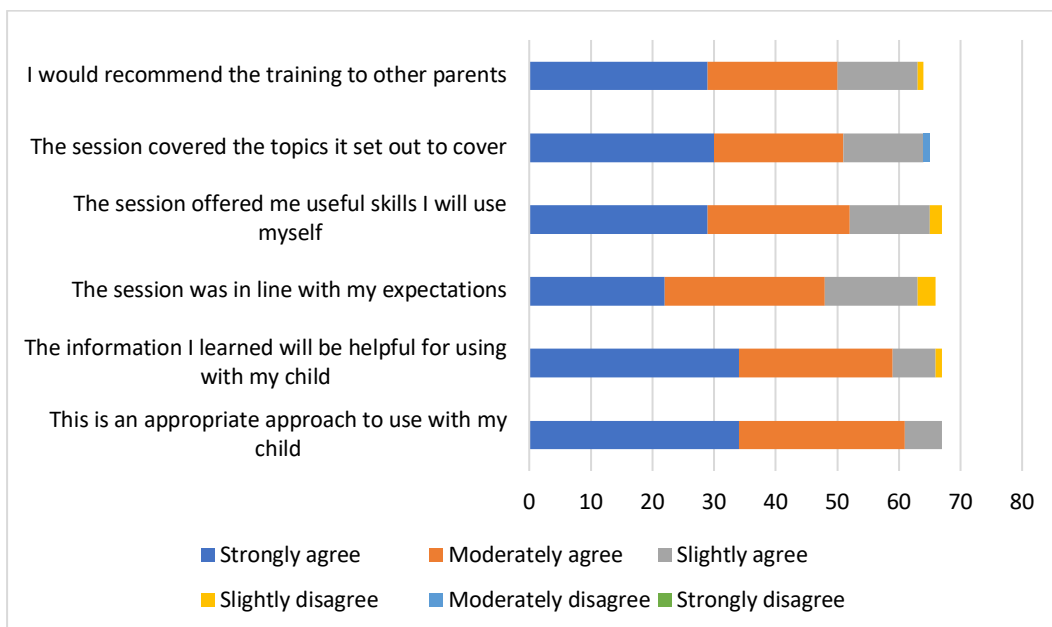


Figure 2.3: Post-workshop evaluation feedback



Longitudinal follow-up

Participants in the study were contacted at 3-month and 6-month follow-up to complete an additional questionnaire regarding their use of the skills they had learned from the training. Participants were also invited to identify which topics they had found to be the most helpful and the least helpful from engaging with the online course.

A total of nine participants completed the questionnaire at 3-months follow-up, and two at 6-months follow-up. Unfortunately, there was a large amount of missing data from these questionnaires. From those who did complete the questionnaire in full (n = 4), only one participant indicated they had accessed the online course. Two participants provided qualitative feedback citing their barriers to accessing the online course as “time” and “I will access [the modules] during the holidays when I have time off work”.

Qualitative Feedback (Focus groups)

Three focus groups were conducted in total. One group was facilitated via Zoom® with the parents from the first parent workshop, at three-month follow-up following the completion of the three optional coaching sessions (n=2). Two further focus groups were facilitated with the second group of parents following the initial workshop (n=11 in each group). Unfortunately, data from one of these groups (n=11) was lost due to technical difficulties with the dictation device during the evening. The focus group facilitator (TK) provided a summary of her recollection of the key themes that were discussed. Due to concerns around recollection bias these have not been included in the qualitative analysis, but a summary of the key points is

provided in **Appendix 2.7**. Qualitative feedback provided in the parent questionnaires was also included in the analysis.

Reflexive thematic analysis was applied to the data using the six-phase approach outlined by Braun et al., (2023). A summary of the key themes is displayed below in **Table 2.3**.

Reflexivity Statement

Reflexive thematic analysis requires the researcher’s acknowledgement in their role in interpreting the data and developing themes. The researcher has a clinical background in working therapeutically with children and young people and delivering parenting interventions. The researcher had also conducted a systematic review exploring existing universal parenting interventions for high-school aged children. These factors were considered and reflected on throughout the analysis.

Themes

Table 2.3: Key themes identified in qualitative data

Themes	Subthemes
Motivation for attending training	Engagement opportunity with their child Support with transitions To learn skills themselves
Training content and resources	Helpful aspects

	Unhelpful aspects and potential improvements
Training experience	Training quality Mode of delivery Barriers to access
Challenges of parenting teenagers	Hormonal change Social media use Peer pressure
Impact of training	Importance of mental health training Long-term impact

Motivation for attending training

Participants stated they were motivated to attend the training to learn skills to support their young person, particularly as they knew their child was learning similar material in class:

“I think it is good for the kids to know we are trying to support them. Not always just to say what has happened to you has happened to them, but just to say we are on the same page, and let them know you understand.” [P4]

Other parents were keen to support their child with the transition to high school:

“Our first was going to high school and we just wanted to help him create positive strategies for dealing with, you know, the increased workload, and to encourage him to enjoy things.”

[P1]

Parents also reported that the training allowed them to develop skills and tools they would use themselves:

“[The course covers] principals I will use myself – life skills. This wasn’t taught when I was at school in the 70s and 80s!” [P3].

“Many tools are provided that is beneficial as a parent and also personally in understanding your own emotions and how to deal with them in a practical way. I am looking forward to learning more about Living Life to the Full and how the knowledge and information can be used going forward.” [Feedback from questionnaire data].

Training content and resources

Participants discussed their engagement with the workshop content and appeared to find the character examples useful for relating to their child’s experiences:

“When she gave the example of Adam, I was like [gasp] that’s it! That’s what my kid is going through. We have moved so much and I thought that’s what he must feel like.” [P6]

Several parents also found it helpful to receive practical information, and discussed how the training allowed them to reflect on their own parenting:

“Information from the event was a lot more practical than imagined before the event.” [P2]

“... Looking at some of the tools that have been discussed, it made me think back to times in the past three or four weeks when I had asked the question “why are you doing that?!” If I had these tools, I would have known how to approach it in a different way. Like, oh, so this is what is happening with my child.” [P9]

Some parents were apprehensive about using the recommended strategies however, and felt unsure whether their young person would engage with the materials:

“Very interesting but I am slightly pessimistic on how to apply these things with my child. I am not sure they will fully engage with worksheets” [Feedback from questionnaire data].

“I’m just not going to stick post-it notes around my house, some of the things presented themselves as a hoop-jumping exercise and I just thought he’s just not gonna do that.” [P1].

Training experience

Most parents reported that they had enjoyed the interactive nature of the training, and had enjoyed the opportunity to attend in person and meet other parents:

“... but definitely found the course more helpful [than reading parenting books], given it is an interactive resource rather than just “read book, put into practice.” [P2]

“As a new parent of the school, I’m happy [for the training] to be in person as I get to meet other parents and see other parents and build relationships.” [P6]

There was some discussion about the overlap between the child and parent course, with some parents identifying that the courses did not cover the same material:

“I found the materials and discussion very useful. In school, my child doesn’t think all the topics were covered, but I have been able to discuss everything with her at home.” [Feedback from questionnaire data].

The majority of parents identified that lack of time and being busy with other commitments were the main barrier to attending the workshops and accessing the online resources.

“I have to say, the online resources, when I have gone in and done a module, actually are as good as the Zoom sessions. But as I said, it lands in your inbox and there’s a load of other stuff in the inbox!” [P1].

During the focus groups, parents offered some recommendations for improving the barriers to access and improving the research process:

“I wonder if running it slightly later [in the school term] would help because I think the first term is so busy, but if it was introduced in second or third term you might get more engagement.” [P2].

“I only managed one [of the coaching sessions] because the night kept changing. I have very few evenings free but if something starts on a Tuesday, I’ll keep my Tuesdays free.” [P1]

“I think I could give better evaluative feedback in a few weeks’ time once I’ve had a chance to look at the online course.” [P1]

Challenges of parenting teenagers

Many parents reflected on the hormonal changes they had observed in their child due to their age and stage of development:

“But yeah the emotional change, I have a hugely different child from this time last year [laughs]. Very, very different.” [P2]

“I think kids are changing... Their bodies are changing, and a lot of stress and other factors like peer pressure going around. It is sometimes difficult as a parent to understand what is on their mind.” [P4]

Other parents discussed some common concerns about their children, including excessive social media use and issues related to peer pressure. Some discussed the increase in challenging behaviour and attitudes they had observed at this point of development:

“[Our son] has started to develop the attitude of “I’m too cool for this stuff” so attitude has become a lot more negative, and we are keen to try and support him to adopt a more positive attitude to engagement generally.” [P1]

Impact of training

Parents that took part in the focus groups appeared to agree that the training had been helpful, with several referring to the course as providing “tools for life”.

“It is really encouraging to see this kind of topic being covered as part of the curriculum. I think it’s really important for children to be given basic tools for life as part of their schooling.” [Feedback from questionnaire data].

“I just think what they are teaching is skills for life. Because if you learn how to deal with this in in your high school years, you will take this forward for the rest of your life.” [P8]

There was also some discussion around the importance of the training being revisited to maintain benefits in the long-term:

“It would be good if the topics could be revisited [throughout their school career] and could become part of how they live, not just something they cover once in PSE.” [P8]

“My understanding is that PSE can be a bit of a skive. So, if it were up to me this is very very important, and should be as important as other subjects.” [P9]

Discussion

This study investigated the feasibility of a new universal intervention for parents: *Helping Your Child Live Life to the Full*. It also aimed to test the feasibility of using the Brief Parental Self-Efficacy Scale as a primary outcome measure for use in future definitive trials. The key findings of the study are discussed below in relation to these objectives.

Feasibility of the intervention

Recruitment and retention rates

The current study recruited 11% of the eligible population to participate in the study. Compared to previous studies of universal parenting interventions that employed convenience or voluntary response sampling methods, this is a relatively high participation rate (Saunders et al., 2020; Chu et al., 2015). As the sample consisted mainly of new first year parents, it is possible that many parents were motivated to participate due to their child's recent transition to high school. This was reflected in demographic data as only 21.2% of the sample were parents of third year pupils, and also in qualitative feedback as some parents cited the secondary school transition as a motivating factor for their participation.

There were high levels of participant dropout throughout each stage of the study, with a large proportion of participants lost to follow-up. Despite acceptable attendance rates at the additional coaching sessions and 17.7% of parents signing up for access to the additional online modules, it is not known how parents experienced these resources as only nine parents completed the 3-month follow-up questionnaires and only two parents completed the 6-month follow-up questionnaires. In qualitative feedback, many parents cited lack of time and

busy personal lives as factors that prevented them from accessing the additional course materials, suggesting that parents possibly found it easier to attend planned teaching sessions than plan and commit to their own self-directed learning. It is also possible that lack of time was a barrier to questionnaire completion for many parents. Future studies could consider using an incentive to encourage participants to engage with follow-up questionnaires.

Additionally, there was a large number of incomplete datasets due to participants skipping questions or failing to complete the full questionnaires. One explanation for this was that many participants experienced problems with accessing the online questionnaire platform due to limited internet connection on their mobile devices. Lost data was less common in trial two, where all participants were provided with paper copies of questionnaires. Future studies could make it compulsory to answer every question within the online questionnaires, and researchers could enhance internet access by providing an additional Wi-Fi hotspot at the school.

Participant characteristics

The majority of the sample were female (69.7%), between the age of 40-50 (70.1%) and identified as White British or Asian/Asian British (48.1% and 36.4% respectively).

Interestingly, this study recruited a high proportion of male participants (30.3%) compared to previous studies of universal parenting interventions (e.g., Alfredsson et al., 2018; Nitsch et al., 2015). Over three quarters of the sample were parents of first year children (78.8%) and the large majority of participants attended the training alone (69.7%). It is important to note that the study was conducted in a high performing school where only 4.6% of pupils received

free school meals compared to the national average of 18.6% (Scottish Government, 2022). Therefore, it cannot be assumed that results from the current study would generalize to poorer performing schools in areas of greater deprivation.

Based on the baseline SDQ data, the highest reported difficulty parents reported in their adolescent were emotional problems, with 22.7% scoring above the clinical cut off. Within this sample, 18.7% of parents reported conduct problems above the clinical cut off. This finding is interesting as at present, the majority of universal parenting programs for adolescents target conduct problems and risk-taking behaviours (Sandler et al., 2011; Yap et al., 2019). The results from this study suggest that many parents may be struggling to manage emotional difficulties to a greater extent, and support the view that universal parenting programs should prioritise the emotional wellbeing of adolescents. This issue may have been accentuated post-COVID, with reported increases in emotional health problems in adolescents (Cooke et al., 2022).

Acceptability of the intervention

The results from the post-training feedback questionnaires indicated there was a high level of satisfaction with the program overall, as 84.6% reported they were moderately or extremely satisfied with the training, and all participants reported they were at least slightly satisfied with the training. It appeared that ‘high-scorers’ on the SDQ (i.e., parents who indicated their child experienced clinical levels of difficulties) were equally as satisfied with the program as parents who did not indicate that their child experienced difficulties. There were high levels of agreement from parents that the approach was appropriate for use with their child, that the

information learned would be helpful for both themselves and their child, that the session was in line with their expectations and that the course covered the topics it set out to cover. This was also reflected in qualitative feedback, as parents reported they had enjoyed meeting other parents, learned practical tools they could use to support their child, and found it helpful to learn the language that was being used in their child's LLTTF-YP classes in school. Parents also related to the examples that were used throughout the training, and some shared that they had learned skills they would use themselves. Despite the limited quantitative data from follow-up questionnaires, qualitative feedback suggested there was an appetite for further parent workshops and revisiting the workshop content in both the parent and child course. These results suggested that *Helping Your Child Live Life to the Full* shows promise in terms of intervention content acceptability.

Some of the qualitative feedback also provided recommendations for improving the intervention. Parents reflected it would be helpful for there to be a clearer link between the parent and child courses, as the parent course did not run at the same time as the delivery of LLTTF-YP to young people in school PSHE classes. Other parents highlighted the need for a consistent date and time when the course was running, as the coaching sessions were run on different evenings depending on facilitator availability. Some parents were unsure whether their adolescent would engage with the approach due to the use of worksheets and practical strategies, which may have been indicative of participants' unfamiliarity with CBT-based interventions. All feedback was provided to the program creators and will be considered when making future adaptations to the program.

Suitability of primary outcome measure

The Brief Parental Self-Efficacy Scale (BPSES) was used to evaluate changes in parental self-efficacy at baseline, post-intervention and at follow-up. Due to the limited number of follow-up responses, only the pre- and post-training responses were analysed, which revealed a small significant improvement in scores. It is important to note that changes across time were minimal and the majority of participants retained similar pre- and post-training scores, which was expected due to the universal nature of this intervention. Effect sizes of universal mental health promotion programs are typically small, as floor effects are common with universal populations (Baeza-Hernandez et al., 2023; Mackenzie, 2016). The results of this feasibility study therefore suggest that *Helping Your Child Live Life to the Full* shows promise in improving parental self-efficacy, but these results should be interpreted with caution due to the minimal changes in score distribution, and the lack of longitudinal follow-up data available. Additionally, the median score did not change between pre- and post-conditions. This was likely to be due to the BPSES being a very brief, five-item measure with limited data points. Therefore, future studies should consider using a longer measure of parental self-efficacy to ensure reliability of results.

Study strengths and limitations

The current study evaluated the feasibility of a new universal parenting intervention for parents of adolescents, which focused on improving emotional wellbeing rather than reducing problematic behaviour. The study has demonstrated that *Helping Your Child Live Life to the Full* shows promise in producing small improvements in a measure of parental self-efficacy, and appears to be an acceptable intervention amongst parents of adolescents. The study was

able to recruit a relatively large sample through voluntary response sampling methods, and provided data regarding participant recruitment and attrition rates that will enable power calculations to be made for larger scale future trials. The study adhered to the MRC's framework for developing complex interventions and has laid the foundations for future evaluations of this intervention (Skivington et al., 2021).

However, the study had a number of limitations that are important to note. The study was subject to self-selection bias as parents were recruited for the study on a voluntary basis. Additionally, there were high levels of attrition throughout the study, but due to the anonymity of follow-up questionnaire data it was not possible to analyse baseline differences of completers vs. non-completers, as most participants did not provide a unique identifier such as an email address in follow-up questionnaires. The study also did not have a control group, which means the results produced in the current study should be interpreted with caution as it is not known whether the effects were truly caused by the intervention. Similarly, the study used only one short measure of parental self-efficacy, and although significant improvement was found between pre- and post-training scores, median scores remained the same and distribution of scores indicated that change across time was minimal, which means that this positive result may not be entirely reliable. The study also relied solely on parent-report measures, and future studies should utilize multi-informant measures to increase reliability of results. Although it was positive that the study utilized a mixed-method approach to incorporate qualitative feedback, unfortunately data from one focus group was lost due to technical difficulties that occurred during the focus group. This meant that some participants may not feel their views are represented in the qualitative results presented in this

study. Finally, the study was conducted in a high performing school in an affluent area of Scotland, which may have impacted on the generalizability of results.

Recommendations for future research

Given the promising results of the current study, it is recommended that larger-scale trials of *Helping Your Child Live Life to the Full* are run to test the reliability of results. Future trials should be of more robust quality, ensuring that a control group comparator such as delayed access to the training content is included, and that methodological issues are minimized based on recommendations from this feasibility trial. Future studies should consider including a measure of adolescent wellbeing, such as the SDQ, at follow-up to determine whether the intervention produces positive outcomes for adolescents. It is also important that the intervention is trialled in more diverse settings such as poorer performing schools to ensure positive results are generalizable to the entire population.

Conclusion and study implications

In conclusion, this study demonstrated that a brief universal parenting intervention for parents of adolescents may produce positive outcomes with regards to parental self-efficacy. *Helping Your Child Live Life to the Full* was found to demonstrate good acceptability amongst participants. However, attrition rates were high throughout the study, which meant that the long-term effects of the intervention were unknown. Although future studies of the intervention are required to ensure reliability of results, the results of the current study suggest that school-based, universal parenting programs may be a helpful preventative intervention for parents of adolescents. The approach fits well within a stepped model of care

and has the potential to provide brief intervention for parents who are struggling to support their adolescent's emotional difficulties. The intervention may also help to prevent mental health difficulties from occurring in the future. Future research should utilize more robust methodologies, such as use of a control group and multi-informant measures, to determine if the results of the current feasibility study are reliable.

Conflict of interests

Professor Chris Williams is the author of *Helping Your Child Live Life to the Full*. Professor Williams is the director of 'Five Areas Ltd' which commercializes CBT-based interventions including the Living Life to the Full programs.

References

Alfredsson, E. K., Thorvaldsson, V., Axberg, U., & Broberg, A. G. (2018). Parenting programs during adolescence: Outcomes from universal and targeted interventions offered in real-world settings. *Scandinavian Journal of Psychology*, *59*(4), 378-391.

Baeza-Hernandez, K., Lasecke, M., Herman, A., Kim, J., Lin, J. M., Dosovitsky, G., ... & Park, A. L. (2023). Pilot implementation of psychoeducational workshops on behavior management and stress management for parents and teachers. *Evidence-Based Practice in Child and Adolescent Mental Health*, *8*(4), 459-470.

Barlow, J., Smailagic, N., Bennett, C., Huband, N., Jones, H., & Coren, E. (2011). Individual and group-based parenting programmes for improving psychosocial outcomes for teenage parents and their children. *Cochrane Database of Systematic Reviews*, (3).

Bor, W., Dean, A. J., Najman, J., & Hayatbakhsh, R. (2014). Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Australian & New Zealand Journal of Psychiatry*, *48*(7), 606-616.

Boyle, C., Lynch, L., Lyon, A., & Williams, C. (2011). The use and feasibility of a CBT intervention. *Child and Adolescent Mental Health*, *16*(3), 129-135.

Braun, V., Clarke, V., Hayfield, N., Davey, L., & Jenkinson, E. (2023). Doing reflexive thematic analysis. *Supporting Research in Counselling and Psychotherapy: Qualitative, Quantitative, and Mixed Methods Research*, 19-38. Springer International Publishing.

Butler, J., Gregg, L., Calam, R., & Wittkowski, A. (2020). Parents' perceptions and experiences of parenting programmes: A systematic review and metasynthesis of the qualitative literature. *Clinical Child and Family Psychology Review*, 23, 176-204.

Byrne, G., Connon, G., Martin, E., McHugh, S., & Power, L. (2021). Evaluation of a parent-led cognitive behaviour therapy programme in routine clinical practice: A controlled trial. *British Journal of Clinical Psychology*, 60(4), 486-503.

Carr, A. (2015). *The handbook of child and adolescent clinical psychology: A contextual approach*. Routledge. 446-447.

Chu, J. T. W., Bullen, P., Farruggia, S. P., Dittman, C. K., & Sanders, M. R. (2015). Parent and adolescent effects of a universal group program for the parenting of adolescents. *Prevention Science*, 16(4), 609-620.

Cooke, E. A., Lemanska, A., Livings, J., & Thomas, S. A. (2022). The impact of COVID-19 on mental health services in Scotland, UK. *Studies in Health Technology and Informatics* 295, 59–62.

Goodman R (1997). The Strengths and Difficulties Questionnaire: A Research Note. *Journal of Child Psychology and Psychiatry*, 38, 581-586.

Goodman. R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40 (11), 1337-1345.

Mackenzie, K. (2016). *A universally delivered CBT based intervention in a Scottish secondary school: a pilot feasibility study*. DCLinPsy thesis. University of Glasgow.
<https://theses.gla.ac.uk/7585/1/2016MackenzieDCLinPsy.pdf>.

Midgley, N., Alayza, A., Lawrence, H., & Bellew, R. (2018). Adopting Minds—a mentalization-based therapy for families in a post-adoption support service: preliminary evaluation and service user experience. *Adoption & Fostering*, 42(1), 22-37.

Muris, P., Meesters, C., & Van den Berg, F. (2003). The Strengths and Difficulties Questionnaire (SDQ): Further evidence for its reliability and validity in a community sample of Dutch children and adolescents. *European Child and Adolescent Psychiatry*, 12 (1), 1–8.

Murray, C. (2018). *Testing two models of delivering and maintaining life skills training in a secondary school setting*. DCLinPsy thesis. University of Glasgow.
<https://theses.gla.ac.uk/30886/>.

National Institute of Clinical Excellence (NICE) (2022). Social, emotional and mental wellbeing in primary and secondary education. *NICE guideline 223*.

<https://www.nice.org.uk/guidance/ng223>

NHS Education for Scotland (2021). *A Short Briefing Paper on the Psychology of Parenting Project (PoPP): December 2021*. NES. Edinburgh.

<https://www.nes.scot.nhs.uk/media/wdsdd1t1/popp-briefing-december-2021.pdf>.

Nitsch, E., Hannon, G., Rickard, E., Houghton, S., & Sharry, J. (2015). Positive parenting: a randomised controlled trial evaluation of the Parents Plus Adolescent Programme in schools. *Child and Adolescent Psychiatry and Mental Health*, 9, 1-12.

Oud, M., De Winter, L., Vermeulen-Smit, E., Bodden, D., Nauta, M., Stone, L. & Stikkelbroek, Y. (2019). Effectiveness of CBT for children and adolescents with depression: A systematic review and meta-regression analysis. *European Psychiatry*, 57, 33-45.

Phillips, S., & Mychailyszyn, M. (2022). The Effect of School-Based Mindfulness Interventions on Anxious and Depressive Symptoms: A Meta-analysis. *School Mental Health*, 1-15.

Sanders, M. R., Divan, G., Singhal, M., Turner, K. M., Velleman, R., Michelson, D., & Patel, V. (2022). Scaling up parenting interventions is critical for attaining the Sustainable Development Goals. *Child Psychiatry & Human Development*, 53(5), 941-952.

Sandler, I. N., Schoenfelder, E. N., Wolchik, S. A., & MacKinnon, D. P. (2011). Long-term impact of prevention programs to promote effective parenting: Lasting effects but uncertain processes. *Annual Review of Psychology*, 62, 299-329.

Saunders, R., Brack, M., Renz, B., Thomson, J., & Pilling, S. (2020). An Evaluation of Parent Training Interventions in Scotland: The Psychology of Parenting Project (PoPP). *Journal of Child and Family Studies*, 29(12), 3369-3380.

Scottish Government. (2017). *Mental Health Strategy 2017–2027*. Edinburgh.
<https://www.gov.scot/publications/mental-health-strategy-2017-2027/pages/5/>.

Scottish Government. (2020). *Coronavirus (COVID-19): Mental Health - Transition and Recovery Plan*. Edinburgh. <https://www.gov.scot/publications/mental-health-scotlands-transition-recovery/>.

Scottish Government (2022). *School Healthy Living Survey statistics 2022*. Edinburgh.
<https://www.gov.scot/publications/school-healthy-living-survey-statistics-2022/>

Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., Boyd, K. A., Craig, N., French, D. P., McIntosh, E., Petticrew, M., Rycroft-Malone, J., White, M. & Moore, L. (2021). A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*, 374, 2061.

UNICEF (2021). *The State of the World's Children 2021*. New York.

https://www.unicef.org/reports/state-worlds-children-2021?utm_source=referral&utm_medium=media&utm_campaign=sowc-web.

Valentine, A. Z., Hall, S. S., Sayal, K., & Hall, C. L. (2024). Waiting-List Interventions for Children and Young People Using Child and Adolescent Mental Health Services: A Systematic Review. *BMJ Mental Health*, 27(1).

Williams, C. (2016). *Living Life to the Full for Young People: Key Life Skills to Change Your Life*. Five Areas Limited.

Woolgar, M., Beckett, C., Falconer, S., Humayun, S., Marsden, A., Scott, S. and Dadds, M. (2013). *A new, brief measure of parental efficacy for parenting practitioners*. Department of Child and Adolescent Psychiatry/ National Academy of Parenting Research: King College London. <https://www.corc.uk.net/outcome-experience-measures/brief-parental-self-efficacy-scale-bpses/>.

World Health Organization. (2020). *Guidelines on mental health promotive and preventive interventions for adolescents: Helping adolescents thrive*. World Health Organization. <https://iris.who.int/bitstream/handle/10665/336864/9789240011854-eng.pdf>.

Yap, M. B. H., Cardamone-Breen, M. C., Rapee, R. M., Lawrence, K. A., Mackinnon, A. J., Mahtani, S., & Jorm, A. F. (2019). Medium-term effects of a tailored web-based parenting intervention to reduce adolescent risk of depression and anxiety: 12-month findings from a randomized controlled trial. *Journal of Medical Internet Research*, *21*(8), e13628.

Appendices

Appendix 1.1: PRISMA Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Pg. 8
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Pg. 9
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Pg. 10 - 12
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Pg. 13
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Pg. 14
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	Pg. 14
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Pg. 107
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	Pg. 15 - 16
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	Pg. 16
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	Pg. 108
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	Pg. 108
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	Pg. 18
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	Pg. 16
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	Pg. 15
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Pg. 16
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	N/A
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	Pg. 16

Section and Topic	Item #	Checklist item	Location where item is reported
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	Pg. 17
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	N/A
Study characteristics	17	Cite each included study and present its characteristics.	Pg. 22 - 28
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Pg. 19
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Pg. 36 - 39
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Pg. 32
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	N/A
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Pg. 43 – 47
	23b	Discuss any limitations of the evidence included in the review.	Pg. 46 – 47
	23c	Discuss any limitations of the review processes used.	Pg. 47 - 48
	23d	Discuss implications of the results for practice, policy, and future research.	Pg. 48 - 29
OTHER INFORMATION			
Registration	24a	Provide registration information for the review, including register name	Pg. 13

Section and Topic	Item #	Checklist item	Location where item is reported
and protocol		and registration number, or state that the review was not registered.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Pg. 13
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Pg. 13
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	N/A
Competing interests	26	Declare any competing interests of review authors.	N/A
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Pg. 108

Appendix 1.2: Example search strategy

Search terms	
Concept	Search terms
Parents	“Parent*” OR “famil*” OR “mother” OR “mum” OR “father” OR “dad” OR “caregiver”
Adolescents	“Adolescen*” OR “teen*” OR “young people” OR “youth” OR “high school”
Universal setting	“Universal” OR “school based” OR “community based”
Intervention	“Intervention” OR “group” OR “program*” OR “treatment” OR “prevent*” OR “therapy” OR “workshop” OR “training”
Parent participants only	“Parent only” OR “parent based” OR “parent focused” OR “parent cent*” OR “parent led” OR “parent guided” OR “parent training” OR “parent deliver*” OR “parent mediated” OR “parent manage*” OR “parent implement*” OR “parent engage*” OR “parent involve*” OR “parent inclu*” OR “parent targeted” OR “parent particip*” OR “parent administered” OR “parent coached” OR “parent direct*” OR “working with parents”
Internalising symptoms	“Depressive disorder” OR “depressi*” OR “anxiety” OR “anxiety disorders” OR “stress*” OR “resilien*” OR “wellbeing*” OR “internalizing” OR “internalising”

Appendix 1.3: Data extraction template

Study (Author, year, publication)	
Country/setting	
Study aim	
Study design	
Sample	
Intervention (Name, modality)	
Control condition (if applicable)	
Recruitment information	
Length of intervention	
Is intervention publicly available?	
Does intervention involve the child?	
How intervention was chosen	
Intervention delivery (Facilitator occupation, supervision, fidelity)	
Outcome measures	

Follow-up details	
Outcomes	
Total quality rating on CCAT	

Appendix 2.1: CONSORT checklist – extension for pilot and feasibility trials

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a pilot or feasibility randomised trial in the title	Pg. 57
	1b	Structured summary of pilot trial design, methods, results, and conclusions (for specific guidance see CONSORT abstract extension for pilot trials)	Pg. 60
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale for future definitive trial, and reasons for randomised pilot trial	Pg. 61 - 64
	2b	Specific objectives or research questions for pilot trial	Pg. 65
Methods			
Trial design	3a	Description of pilot trial design (such as parallel, factorial) including allocation ratio	Pg. 65
	3b	Important changes to methods after pilot trial commencement (such as eligibility criteria), with reasons	N/A
Participants	4a	Eligibility criteria for participants	Pg. 66 - 67
	4b	Settings and locations where the data were collected	Pg. 66
	4c	How participants were identified and consented	Pg. 66 - 67
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	Pg. 68- 69
Outcomes	6a	Completely defined prespecified assessments or measurements to address each pilot trial objective specified in 2b, including how and when they were assessed	Pg. 69 - 71
	6b	Any changes to pilot trial assessments or measurements after the pilot trial commenced, with reasons	N/A

	6c	If applicable, prespecified criteria used to judge whether, or how, to proceed with future definitive trial	N/A
Sample size	7a	Rationale for numbers in the pilot trial	Pg. 67
	7b	When applicable, explanation of any interim analyses and stopping guidelines	N/A
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	N/A
	8b	Type of randomisation(s); details of any restriction (such as blocking and block size)	N/A
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	N/A
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	N/A
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	N/A
	11b	If relevant, description of the similarity of interventions	N/A
Statistical methods	12	Methods used to address each pilot trial objective whether qualitative or quantitative	Pg. 71 – 72
Results			
Participant flow (a diagram is	13a	For each group, the numbers of participants who were approached and/or assessed for eligibility, randomly assigned, received intended treatment, and were assessed for each objective	Pg. 72

strongly recommended)	13b	For each group, losses and exclusions after randomisation, together with reasons	Pg. 74
Recruitment	14a	Dates defining the periods of recruitment and follow-up	Pg 72 – 73
	14b	Why the pilot trial ended or was stopped	N/A
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	Pg. 75
Numbers analysed	16	For each objective, number of participants (denominator) included in each analysis. If relevant, these numbers should be by randomised group	Pg. 76 - 77
Outcomes and estimation	17	For each objective, results including expressions of uncertainty (such as 95% confidence interval) for any estimates. If relevant, these results should be by randomised group	Pg. 77
Ancillary analyses	18	Results of any other analyses performed that could be used to inform the future definitive trial	Pg. 78 - 81
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	N/A
	19a	If relevant, other important unintended consequences	N/A
Discussion			
Limitations	20	Pilot trial limitations, addressing sources of potential bias and remaining uncertainty about feasibility	Pg. 92 - 93
Generalisability	21	Generalisability (applicability) of pilot trial methods and findings to future definitive trial and other studies	Pg. 88
Interpretation	22	Interpretation consistent with pilot trial objectives and findings, balancing potential benefits and harms, and considering other relevant evidence	Pg. 88 - 92

	22a	Implications for progression from pilot to future definitive trial, including any proposed amendments	Pg. 94
Other information			
Registration	23	Registration number for pilot trial and name of trial registry	N/A
Protocol	24	Where the pilot trial protocol can be accessed, if available	Pg. 123
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	Pg. 95
	26	Ethical approval or approval by research review committee, confirmed with reference number	Pg. 67

Appendix 2.2: Recruitment flyer sent to parents



Helping your child Live life to the Full

Parent awareness and information session

Thursday 26th January 2023 6.00-8.00pm
Online via Zoom

Led by [Professor Chris Williams](#), Emeritus Professor of Psychosocial Psychiatry University of Glasgow and [Mrs Theresa Kelly](#), Training and Implementation Lead, Five Areas Ltd.

Background:

Life can seem to bring challenge after challenge. High levels of low mood and stress affect the majority of young people at some stage in their lives. But – many young people experience intermittent distress on top of this.

Living life to the full is an evidence-based life skills programme that is being offered to all S1 pupils at Mearns Castle.

You are invited to find out more and join a research programme led by [Natalie Reid](#), a Psychology Doctoral student at the University of Glasgow.

All S1 Parents are invited to attend an evening event led by experts in helping young people gain life skills.

You will learn:

- About the **LLTTF for Young People** course your child is accessing in PSE class.
- Have the option to discover key elements of that course in a 2 hour workshop – so you can learn how to support your child to put what they learn into practice.

The workshop is all about helping you to understand key life skills.

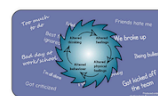
If you join the research you gain access to the following extra resources:

1. Online self-directed toolkit you can dip into to discover solutions for many childhood challenges.
2. You can attend 3x 60 minute online Coaching sessions to help support you using the various tools with your child.

On the Evening

6.00 - 8.00 pm	<p>Why Live Life to the Full?</p> <p>Professor C Williams/Mrs Theresa Kelly</p> <ul style="list-style-type: none"> • Why do we feel as we do • How to feel better
----------------	---

To book to attend please email training@llttf.com and request to join the session. We will send the zoom registration details. We look forward to seeing you there.



Appendix 2.3: MVLS Ethics approval confirmation letter

Ethical approval letter removed due to confidentiality issues.

Appendix 2.4: List of topics covered in the Helping Your Child Live Life to the Full course with descriptions for parents

Introduction: using the course resources	<i>Discover how this course for parents can help you support your child use a range of CBT-based worksheets that cover a wide range of life skills aimed at helping your child navigate secondary school- and life.</i>
Understanding your child's feelings	<i>Your child- and we sometimes feel happy, relaxed and enjoy life. At other times pressures build and they or we may feel stressed, low, frustrated or angry. Discover why this happens- and how to move from a vicious cycle of low or anxious mood, to feeling better.</i>
Planning effective change	<i>"I'll do it later" is a phrase familiar to every parent. Discover a straight forward and effective Plan-Do and Review approach that helps your child plan effective change- learning all the way.</i>
Practical problem solving	<i>Your child- and we – often feel like we do because of things going on around them. Find out how they can plan to overcome practical life events and challenges that can build up and seem overwhelming, using the Easy 4-Step Plan.</i>
Noticing unhelpful thoughts	<i>Unhelpful thoughts make your child feel worse – low, stressed, angry, guilty or ashamed. They can also worsen how they feel physically – sleeping poorly, feeling tense or exhausted, and cause them to react in ways that add to their problems. Help your child spot these problem thoughts so they can choose to respond differently.</i>
Changing unhelpful thoughts	<i>Once your child has spotted an unhelpful thought, help them experiment with our Amazing Unhelpful Thought Busting Program to label it, leave it, stand up to it, be kind to themselves, and look at it differently.</i>
Relaxation skills using tension control training	<i>Tension Control Training teaches your child how to move their mind away from upsetting thoughts by moving their focus round their body, and finally using the words Calm, Control to focus their mind on a lovely place of calm.</i>
Doing things that make you feel better	<i>Doing certain activities can help your child feel better. Discover what these activities are and how to encourage them in your child's life.</i>
Facing fears + tackling avoidance	<i>Children avoid things that seem scary. This undermines further their confidence. Help your child plan ways of rebuilding their confidence one step at a time.</i>
Building inner confidence	<i>Discover the origins of confidence, and how your child can become aware of their strengths as well as their weaknesses, and become kinder to themselves in the process.</i>
Asking for what you need	<i>Help your child discover more about passive, aggressive and assertive behaviour. This includes the 12 rules of assertiveness, and a method to help them say no - as well as asking for what they need.</i>

Overcoming irritability and anger	<i>Young people often respond irritably. Help them discover a three-step approach to help them notice what pushes their buttons, spot early warning signs of anger rising, and respond more helpfully, using a 1,2,3 Breathe approach.</i>
Helping get a better nights sleep	<i>Help your child set up a healthy sleep-wake cycle, using daylight to re-set their body clock, wind down for bed, and respond helpfully in the face of insomnia.</i>
The things your child does that help	<i>Your child may want to respond in ways that help - but isn't sure what to do. This session helps them discover activities that are known to enhance life, helping lift mood, calm stress and get a better balance to life.</i>
Reducing unhelpful behaviours	<i>Some activities such as social media, gaming, risk taking, comfort eating and more can be fun – but each can get out of hand causing problems for your child and often for those around them. Discover a range of unhelpful behaviours, and also how high standards can backfire for your child as well.</i>

Appendix 2.5: Adaptations made to the Brief Parental Self Efficacy Scale

Link to download: <https://osf.io/pr6bz>

Appendix 2.6: Focus group question guide

About the Helping you help your child training

1. What interested you in taking part in the course (or not)?
2. Was there anything you found particularly **helpful** about:
 - the in-person workshop?
 - the additional Zoom sessions?
 - What was your experience of the session format (i.e., did you prefer the in person or Zoom workshops, or self-directed online modules)?
3. Was there anything you found particularly **unhelpful** about:
 - the in-person workshop?
 - the additional Zoom sessions?

About the Helping you help your child content

4. What was your experience of using the online modules?
5. Were there any barriers that prevented you from accessing:
 - the in-person workshop?
 - the additional Zoom sessions?
6. Were there any topics you would have liked to spend more time on, or any topics that were not covered you would have found helpful?

Putting what you've learned into practice

7. What was your experience of using/how do you plan to use the course materials to facilitate conversations about mental wellbeing between you and your child?
8. Has the course approach helped you help your child live life to the full?
9. Have you participated in any other parenting books or courses in the past? How did your experience of the *Helping help your child LLTTF* course differ to this?
10. What was your experience of the research process? (e.g., did the questionnaires feel appropriate / were the focus groups accessible?)

11. Do you have any feedback on how the course or the research process could be improved?

Appendix 2.7: Recollection of discussion points from missing focus group data

- Parents reported they had found the workshop helpful and informative.
- Parents discussed waiting for assessments for their children regarding Autism and ADHD, and discussed how they had found the workshop helpful for providing strategies during this process.
- Some parents reflected on significant transitions including moving to a new country, and the impact this had on their child's wellbeing.
- Parents discussed the transition to high school and how this had impacted on their child's wellbeing.
- Peer related issues were discussed, including use of mobile phones and setting limits on use of devices.

Appendix 2.8: MRP proposal

Link to download: <https://osf.io/7f8qy>

Appendix 2.9: Participant information sheet and consent form

Participant information sheet

Link to download: <https://osf.io/s6zqy>

Consent form

Link to download: <https://osf.io/wgjz7>