Well-Being in Paediatric Care: Support for Children and Their Carers

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Portfolio Abstract

Background: Children with long-term health conditions (LTHC) are at an increased risk of developing mental health difficulties, particularly anxiety. Many of these children, as well as those admitted following accidents, may undergo periods of hospitalisation. Paediatric hospitalisations can be extremely distressing for both child and carer. Parental well-being can significantly impact the child's well-being and physical health, yet psychological support amongst this population appears limited. **Methods:** A narrative synthesis was conducted to examine what interventions are offered to parents during paediatric hospital stays and to compare their effectiveness. The empirical study aimed to assess the feasibility of a novel, online, single-session psychoeducation training delivered to parents of children with a LTHC to support in managing the child's anxiety. The training is based on Acceptance and Commitment Therapy (ACT) principles. **Results:** The review included ten studies consisting of three intervention types; psychological/skills based, mind-body, and entertainment/play-based approaches. Most reported improvements in parental psychological distress and anxiety, but evidence was limited by small sample sizes, short follow-up periods, and predominantly female participants. The feasibility study, with a sample of 17 carers, found the intervention to be acceptable amongst the small sample. However, significant recruitment and retention difficulties limited the feasibility of the training. **Conclusions:** The review highlighted a range of structured interventions can be effective in improving the psychological well-being of parents during paediatric hospitalisations, but larger studies and longer-follow up periods are needed. In the empirical study, the training showed promise and results indicate it was acceptable, but recruitment difficulties raised questions regarding feasibility. Alterations are needed prior to conducting a pilot randomised controlled trial. Portfolio limitations and implications are discussed.

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Chapter Two: Systematic Review

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Portfolio Introduction

Longterm health conditions (LTHC) can be defined as illnesses requiring ongoing management across the life span (Petersson et al., 2013). The number of children living with LTHCs has rapidly increased in recent years, owing largely to improvements in care, early identification, and treatment (Wijlaars et al., 2016). The NHS long term plan (2019) estimate that 1.7 million children are living in England with a LTHC. Children with LTHCs may experience a range of medical needs which alter daily life for them and their family (Kelo et al., 2013) and may require inpatient admissions.

Research has established that children with LTHCs are significantly more likely to develop psychiatric symptoms such as anxiety and depression (Bennett et al., 2015; NICE, 2019; NICE, 2022). NICE (2019) estimates that those with LTHCs are approximately three times more likely to experience mental health problems. Given the increased rate of experiencing psychiatric symptoms for children with a LTHC, it is essential that suitable interventions are developed to meet their needs.

Children with co-occurring physical and mental health difficulties can be viewed as having complex care needs, and typically physical health care needs are prioritised (Bennet et al., 2015). Poor mental health can have negative impacts upon their physical health (NICE, 2019). However, mental health treatment in paediatric settings is currently limited due to poor integration of physical and mental health services (NICE, 2019). Currently, there are effective evidence-based psychological intervention for common psychiatric disorders for children, but guidelines for psychiatric disorders amongst this specific population is more limited (Bennett et al., 2015). The Society of Pediatric Psychology (2021) recommend cognitive behavioural therapy, problem solving therapy and systemic therapies as treatments for parents and families of youth with LTHCs, all of which require adaptations to meet the specific health

care needs. Marshall et al. (2024) review highlighted that the integration of psychological services directly into paediatric care can improve access to support. However, the evidence base remains limited. This therefore emphasises the need for further consideration of effective interventions specifically designed to meet this population's unique needs. Moore et al. (2019) conducted a review and concluded the key elements of successful interventions amongst this group are building good relationships and delivering interventions in a safe space. Participants preferred interventions which provided social support and improved their perception of living with a LTHC. This guidance should be considered when designing new interventions for this specific population.

El-Qasem et al. (2025) conducted a longitudinal study and reported paediatric hospital admission episodes in England to be on average 2,488,201 per year, between April 2012 and April 2020. Children with LTHCs are amongst those who can experience paediatric inpatient admissions for both planned and unplanned treatment, including emergency hospitalisations due to their LTHC.

Research has established that paediatric admissions can be a distressing experience for children (Abdi et al., 2025), likely due to the unfamiliar environment and intrusive medical procedures. Distress whilst in hospital may impact the child's ability to cope with medical procedures. For example, poorly managed distress during needle procedures can result in increased pain and avoidance of medical interventions (Birnie et al, 2014). Supporting the child's mental well-being during admissions is therefore important for their psychological health, as well as their physical health.

Understandably, hospital admission of their child is typically a source of acute anxiety, depression and distress amongst parents and carers (Alzawad et al., 2021; Franck et al., 2015; Oxley, 2015; Tsironi & Koulierakis, 2018; Zdun-Ryzewska et al., 2021). Paediatric Intensive Care Unit (PICU) admissions are likely to cause the most acute stress

reactions due to the severity and nature of the admissions, with research highlighting the high rates of trauma exposure for children and their families following PICU admissions (Nelson & Gold, 2012). Of note, a recent study (Rössler et al., 2026) conducted in Germany, found of 52 parents, nearly two-thirds met criteria for acute stress disorder, 42% screened positive for post-traumatic stress disorder (PTSD) risk, and 68% depression risk. A third of participants expressed the need for psychological follow-up care. Alzawad et al. (2021) reported parental stress during a PICU admission could be influenced by a number of factors, including whether the child requires ventilatory support, if they have a cardiovascular diagnosis, the child's appearance, procedures and staff behaviour. Research has clearly established the significant impact child hospitalisation can have upon the parent's mental health, and therefore effective support is needed for parents as well as the child.

Parental well-being may impact their ability to participate in their child's care during hospitalisation. For example, a parent experiencing acute anxiety may be unable to provide accurate information or make informed decisions about their child's care (Yesil & Butun, 2025). Research has also linked parental distress with negative long-term adjustments for both parents and child post discharge (Alisic et al., 2011; Dunn et al., 2012).

Evidence indicates parental mental health can play a crucial role in their child's mental well-being (Michals & Reeder, 2023) and is a predictor of their distress as an adult (Kamis, 2021). Stress is one of the most described symptoms by parents during paediatric admissions. Ribas et al. (2024) review found parental stress predicted emotional/behavioural difficulties in school aged children. Children are likely to already be experiencing increased levels of distress during admissions (Abdi et al., 2025; Claridge & Powell, 2023). Additional parental distress may have a further negative impact upon the child's well-being. This therefore emphasises that failure to provide the correct support to parents could lead to negative parental well-being outcomes, as well as poor psychological and physical

health outcomes for the child. Despite this, there are no set recommendations for what this support should look like.

Research has evidenced the psychological impact that LTHCs can have upon children's well-being (Bennett et al., 2015; NICE, 2019; NICE, 2022). The psychological impact of paediatric admissions upon the child (Abdi et al., 2025; Claridge & Powell, 2023) and parents well-being (Alzawad et al., 2021; Franck et al., 2015; Oxley, 2015; Tsironi & Koulierakis., 2018; Zdun-Ryzewska et al., 2021) is also well established. This thesis sought to understand what support is available and effective for parents during paediatric admissions, as well as examine the feasibility of a novel training to support carers of children with LTHCs.

Chapter Two presents a narrative review on the parental support offered during paediatric inpatient hospital stays. This chapter examines what interventions are available to carers during inpatient paediatric admissions and the effectiveness of these interventions. Chapter Four examines the feasibility and acceptability of a newly developed, psychoeducation training package for parents of children with LTHCs. The training aims to provide psychoeducation on anxiety in the context of LTHCs, and includes some strategies for carers to consider implementing with their child to support them in managing their anxiety. The training is based upon Acceptance and Commitment Therapy (ACT) principles. ACT aims to reduce the impact of upsetting thoughts and feelings via acceptance, whilst encouraging the individual to take action and live a meaningful life (Harris, 2019). Chapter three is a bridging chapter linking the narrative review with the empirical paper. Finally, Chapter Five discusses an overview of the findings across both studies, as well as considering the strengths, limitations, clinical implications and future recommendations.

Chapter 2: Systematic Review

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Parental Support Provided To Parents During Paediatric Inpatient Hospital Stays: A Narrative Synthesis

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Abstract

Objective: This systematic review aims to update previous reviews to examine what support is currently offered for parents during paediatric inpatient stays and understand the effectiveness of these interventions.

Method: To address this gap, a systematic search was conducted using Medline, PsycInfo, CINAHL and Scopus. Searches were conducted on the 16th of September 2025. Studies were eligible if published after 1st of January 2010, participants were parents of paediatric inpatients during the initial intervention (not including mental health admissions, Neonatal Intensive Care Unit or neonatal wards), participants were aged over 18, and the study reported on well-being-related outcomes.

Results: Initial searches identified 3304 articles, with 10 studies meeting the final criteria (n = 978 participants). A narrative synthesis approach was adopted to account for the high heterogeneity of interventions and outcomes. Three key intervention areas were identified: Psychological/ Skills-based, Mind-Body, and Entertainment/ Play-based. Studies generally found the interventions to be effective in improving the well-being of participants, but the quality of evidence varied. Evidence was limited by small sample sizes, high percentage of female participants, and no or short follow-up periods.

Conclusion: Structured, psychosocial interventions can be effective in improving the well-being of parents during paediatric inpatient stays. Further research is needed to understand whether these results are generalisable and if the benefits are long lasting.

Introduction

Hospital admission of their child is typically a source of acute anxiety, depression and distress amongst parents (Alzawad et al., 2021; Franck et al., 2015; Oxley, 2015; Zdun-Ryzewska et al., 2021). Research has consistently emphasised the detrimental impact paediatric hospitalisations can have on parental well-being (Alzawad et al., 2021; Oxley, 2015; Tsironi & Koulierakis, 2018; Zdun-Ryzewska et al., 2021). A review conducted by Nelson and Gold (2012) reported that following admissions to Paediatric Intensive Care Unit (PICU), children and parents reported high rates of post-traumatic stress disorder (PTSD) due to trauma exposure of their child and others. Although PTSD rates are high following admission to PICU, PTSD prevalence is also high amongst general paediatric wards. For example, Franck et al. (2015) concluded more than one quarter of parents reported PTSD symptoms following discharge, evidencing the need for effective interventions across paediatric settings.

Improved parental well-being is associated with better mental and physical health outcomes for the child following admission (Boonchooduang et al., 2025). If a parent's ability to participate in their child's care whilst hospitalised is compromised due to their own well-being, the child's recovery in hospital and after discharge may be impacted. Research has linked parental distress with negative long-term adjustments for both parents and children (Alisic et al., 2011; Dunn et al., 2012). This highlights the need for effective interventions to support the well-being of parents during paediatric hospitalisations.

Furthermore, parents may have conflicting responsibilities and roles outside the hospital, such as work commitments and other children to care for, which can impact their ability to be present on the ward and attend the demands of other responsibilities. Family life may be impacted, for example family outings may not be possible. These disruptions may impact the well-being of all family members (Barlow & Ellard, 2006). Research has also found having a child with a LTHC is negatively correlated with family employment, maternal labour force participation, and leisure time activity (Hatzmann et al., 2014). This shows the importance of ensuring parents receive appropriate support,

enabling them to meet external demands, including maintaining employment and caring for their other children.

A review conducted by Doupnik et al. (2017) analysed parent support interventions during acute paediatric hospitalisations and concluded that interventions were associated with improvements in emotional outcomes. However, considerable variation existed within the scope and content of the interventions. The review also included parents of infants on Neonatal Intensive Care Units (NICU). The nature and experiences of NICU wards in contrast to general paediatric wards is likely to be very different which makes comparisons more difficult. Studies conducted as far back as 1988 (Curley, 1988) were also included. Given advances in technology and medicine, experiences of parents during hospitalisations may now present with different challenges. It is therefore important to understand what interventions are being offered in more recent years in line with these changes. Bedford and Bench (2019) conducted a review of interventions provided to parents following a child's discharge from PICU. However, the severity and nature of the experiences among parents of PICU patients are likely to differ from those of other parents, indicating the need for a more generalised review.

In response to currently available research, the review had two aims. The first was to provide an updated understanding of the types of interventions offered to parents during paediatric admissions. The second aim was to evaluate the effectiveness of these interventions.

Methods

Protocol and Registration

The protocol for this systematic review was registered with the International Prospective Register of Systematic Reviews (PROSPERO; protocol number: CRD420251056320*)* on the 16/05/2025. The review followed the guidance outlined in Preferred Reporting Items for Systematic Review and Meta Analyses (PRISMA) 2020 statement (Page et al., 2021).

Search Strategy

Four electronic databases (CINAHL, Medline, PsycInfo and Scopus) were searched from 01.01.2010 to 16.09.2025. This date range was chosen to ensure the review reflected the most recent development of interventions. A librarian from the University of East Anglia's medical school was consulted to assist in developing the search strategy.

Search terms and syntax for the systematic review are shown in Appendix A. The reference lists of relevant articles were reviewed to identify additional studies which were not captured in the electronic search. This identified a further 567 records which were incorporated.

Eligibility Criteria

Articles were included if they met the following selection criteria: (1) The study aimed to evaluate the effectiveness of an intervention; (2) participants were parents of paediatric inpatients during the initial intervention (not including NICU, neonatal wards or mental health wards); (3) participants were aged over 18; (4) the study reported on well-being related outcomes; (5) the article was a primary study; (6) the full text was available to view to allow for quality appraisal and data extraction.

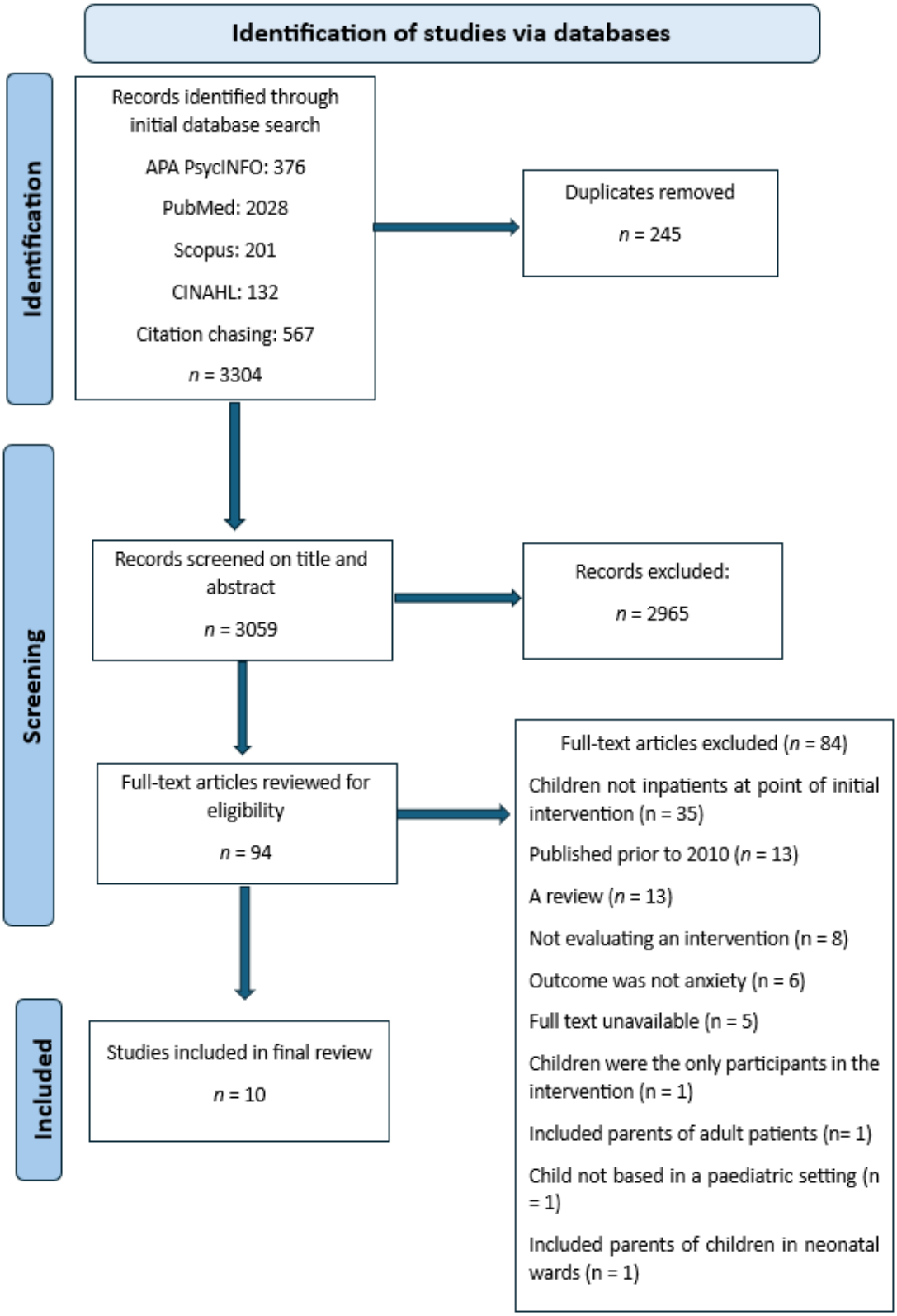
Screening and Study Selection

Figure 2.1 shows the PRISMA diagram demonstrating the study selection process. Titles and abstracts identified via the database searches were exported from the search platforms and collated in Zotero Reference Manager. Records were exported from Zotero and imported to Rayyan for screening. All identified titles and abstracts were screened by the lead researcher HLW. In addition, a random selection (20%) of the papers were reviewed by a second rater (JM). The inter-rater reliability calculated was deemed as 'almost perfect', Cohen's $k = 0.82$ (Landis & Koch, 1977).

Following initial screening, 94 papers remained for full text screening. Full-text papers were retrieved for all eligible title and abstract records. HLW reviewed 100% of full texts of eligible studies and JM blindly reviewed 20%. An agreement rate between raters of Cohen's $k = 0.83$ was calculated, classified as 'almost perfect' (Landis & Koch, 1977). At both stages, disagreements were discussed

until the rating was agreed. Both raters used the same eligibility criteria as during the title and abstract screening.

Figure 2.1: *PRISMA diagram showing the study selection process.*



Data Extraction

Data were extracted by HLW (the primary researcher). If available, extracted data included: author, year of publication, country of origin, study setting, study design, sample size, mean and SD of age of participants, percentage of female participants, intervention type, whether it was a parent only intervention, outcome measures, follow-up periods, and study results.

Data Analysis

Due to the heterogeneous nature of the interventions and outcome measures, statistical meta-analysis was not possible. A narrative synthesis was conducted following the framework proposed by Popay et al. (2006). Narrative synthesis enabled comparison of findings from a range of research designs, incorporating quantitative and qualitative data to inform judgements about a range of interventions (Popay et al., 2006).

Study characteristics were extracted and results organised according to the type of intervention, outcome measures and findings to address the research question. Intervention groupings were developed after reviewing the studies. Comparisons were conducted using tabulation and thematic grouping to assess study design, methodology appraisal, participant demographics, intervention type, outcome measures, follow-up duration, effect direction, and statistical significance of the results.

Quality Appraisal

A quality appraisal using the Mixed-Methods Appraisal Tool (MMAT) (Hong et al., 2018) was conducted. The MMAT was designed to assess study methodologies of randomised control trials (RCTs), non-randomized studies, quantitative, qualitative research, and mixed-methods studies. Each study was assigned a score of ‘Yes’, ‘No’ or ‘Unclear’ based on the MMAT scoring guidance. The MMAT was chosen as the appraisal tool as it viewed as a valid and efficient in assessing multiple study designs (Hong et al., 2019). One hundred percent of studies were assessed independently by two researchers to minimise bias. Two discrepancies were resolved via discussions until the same agreement was met.

Results

Study Characteristics

Ten studies published between 2010 and 2025 were identified that evaluated eight interventions aiming to improve the psychological well-being of carers in paediatric inpatient settings. The studies took place in China (n = 4), USA (n = 3), Iran (n = 2), Turkey (n = 1), and Taiwan (n = 1). The settings included generic paediatric wards (n = 3), paediatric oncology/ haematology wards (n= 5), paediatric burn units (n = 1), and paediatric department of cardiology (n=1). The 10 studies included a total of 978 parents of hospitalised children, ranging from 40 to 200 parents per study.

Table 2.1

Summary of demographic data

Reference	Country	Setting	Sample size	Mean age parent	% female parent
Başgöl et al. (2025)	Turkey	Paediatric ward	120	Not reported.	100%
Jimenez et al. (2025)	USA	Paediatric ward	200	Majority aged 31-50 (74.5%), exact mean not reported.	80.55%
Jin et al. (2025)	China	Oncology ward	142	35.08	86%
Jin et al. (2023)	China	Oncology ward	40	34.7	80%
Li et al. (2018)	China	Department of Paediatric Cardiovascular Surgery and Department of Cardiology	40	31.80	58.58%
Pouraboli et al. (2019)	Iran	Paediatric ward, oncology patients	120	37.48	Not reported.
Shaygan et al. (2025)	Iran	Paediatric ward from the burn hospital	56	33.8 (SD = 8.47)	100%
Thygeson et al. (2010)	USA	Haematology and oncology wards	120	37.42	70%
Wu et al. (2023)	Taiwan	Oncology ward	96 (parent-child dyads)	42.44	76.04%
Zhang et al. (2018)	China	Haematology and oncology ward	44	31.5	61%

Study Quality

According to the MMAT, the methodological quality of studies was generally good (minimum of four out of five ratings as 'Yes'). Only one study was evaluated as having a high risk of bias across four of the five MMAT domains. All other studies were assessed as having two or less. Amongst the RCTs, a commonly reported limitation was related to the blinding of outcome assessors to the intervention provided. In four of the seven RCTs, this information was not provided. RCTs only included participants from one or three hospitals, so the generalisability of the results is likely to be poor. Of note, three of the eight RCT studies included were pilot studies so had small sample sizes. The focus of these studies was to assess feasibility. Although studies used ANCOVA to increase statistical power (Li et al., 2018; Zhang et al., 2018), inadequate power increases the likelihood of not detecting small effects. Limitations of non-randomised studies were consistently related to whether participants were representative of the target population.

Table 2.2

Quality rating by study assessed by the Mixed Methods Appraisal Tool (MMAT)

Reference	Are there clear research questions?	Do the collected data allow to address the research questions?	RCT 1.1	RCT 1.2	RCT 1.3	RCT 1.4	RCT 1.5	Non RCT 2.1	Non RCT 2.2	Non RCT 2.3	Non RCT 2.4	Non RCT 2.5	Mixed 1.1	Mixed 1.2	Mixed 1.3	Mixed 1.4	Mixed 1.5
Başgöl et al. (2025)	Y	Y	Y	Y	Y	Y	Y										
Jimenez et al. (2025)	Y	Y	Y	Y	Y	U	Y										
Jin et al. (2025)	Y	Y	Y	Y	Y	Y	Y										
Jin et al. (2023)	Y	Y	Y	Y	Y	Y	Y										
Li et al. (2018)	Y	Y	Y	N	Y	U	Y										
Pouraboli et al. (2019)	Y	Y	Y	Y	Y	U	Y										
Shaygan et al. (2025)	Y	Y						N	Y	Y	N	Y					
Thygeson et al. (2010)	Y	Y											Y	Y	Y	Y	Y
Wu et al. (2023)	Y	Y						N	Y	Y	Y	Y					
Zhang et al. (2018)	Y	Y	Y	N	N	U	N										

Y = Yes, N = No, U = Unknown

Study Findings

Studies were categorised by intervention type to allow meaningful comparisons. The most common intervention type was Psychological and Skills Based Interventions (n = 5), followed by Mind-Body Interventions (n = 4), then Entertainment / Play Based Therapy (n = 1). Presented below is a summary of key findings. Only outcome measures relevant to the review are reported.

Table 2.3

Summary of findings

Reference	Study Design	Intervention Type	Intervention	Parent only intervention?	Outcome Measures	Follow-up Period	Results
Başgöl et al. (2025)	RCT	Mind-body	Reiki Intervention group received four Reiki sessions over two weeks from a researcher who has a Reiki training certificate. Length of sessions was dependent on the participants' needs but typically lasted around 45-minutes. Those in the placebo group were given sham Reiki for approximately 45-minutes by a researcher with no Reiki training.	Yes	Spielberger State Trait Anxiety Inventory (STAI) (Spielberger et al., 1983).	2 weeks	Post-intervention anxiety scores of the intervention group (mean = 43.25, SD = 2.93), were lower than both the placebo (mean = 51.12, SD = 12.15) and control groups (mean = 51.03, SD = 9.27). There was a statistically significant difference in pre- and post-intervention mean scores of the intervention group ($t = 4.209$, $p = 0.001$). However, no significant differences were found in the placebo ($t = 1.545$, $p = 0.130$) or control groups ($t = 0.525$, $p = 0.602$).
Jimenez et al. (2025)	RCT	Psychological/ skills based	Virtual Reality (VR) guided meditation. This involved the VR headset displaying a guided 6-minute meditation. The intervention provided visual cues for	Yes	Visual Analog Scale for Anxiety (VAS-A) (Kindler et al., 2000).		The intervention group reported significantly greater reductions in anxiety (mean reduction 21.88 versus 8.06; $p = 0.0005$). In terms of trait anxiety, the intervention group demonstrates significantly larger reductions (intervention group mean change = 6.4, control group mean

			breathing exercises with a relaxing scenery, with a guided voice in English or Spanish.		STAI (Spielberger et al., 1983).		change = 1.4; $p < 0.0001$). Similarly, the intervention group experienced greater reductions in state anxiety (mean reduction 11.1 versus = 3.3; $p< 0.0001$).
Jin et al. (2025)	RCT	Psychological/ skills based	Acceptance and Commitment Therapy (ACT). 4 individual sessions, lasting 45-60 minutes each. Initial face-to-face session followed by three, online sessions.	Yes	Depression Anxiety Stress-Scale-21 (DASS-21) (Henry & Crawford, 2005). PedsQL Parent HRQL Scale (Varni et al., 2004).	1 week and 3-months	In comparison with the control group, those in the ACT group reported significantly greater reductions in psychological distress at T1 ($\beta = -13.54$; 95% CI: −20.04 to −7.03; $P < .001$; $d = 0.72$). These results were also shadowed at T2 ($\beta = -11.86$; 95% CI: −18.92 to −4.80; $P = .001$; $d = 0.61$). In terms of quality of life, scores from the HRQL indicated those in the ACT group experienced significantly greater improvements at both T1 ($\beta = 8.61$; 95% CI: 3.42–13.80; $P = .001$; $d = 0.58$) and T2 ($\beta = 8.52$; 95% CI: 2.79–14.26; $P = .004$; $d = 0.49$).
Jin et al. (2023)	RCT (pilot)	Psychological/ skills based	Same as Jin et al. (2025).	Yes	DASS-21 (Henry & Crawford, 2005). PedsQL Parent HRQL Scale (Varni et al., 2004).	1 week	DASS-21 scores reduced in both groups, suggesting reductions in depression, stress and anxiety symptoms. ACT group scores reduced from mean score = 29.60 (SD = 21.96) to 18.32 (10.36), compared to the control group reducing from a mean score of 32.10 (SD = 33.40) to 22.74 (24.25) ACT did not yield significantly greater improvement in comparison to the control group (group effect $p = .774$). Both the ACT (mean = 53.31, SD = 18.51 to mean = 61.78, SD = 9.92) and

						control groups (mean = 60.06, SD = 22.47, to mean = 64.87, SD = 17.51) reported improvements in Quality of Life from pre to post intervention. The difference was not significant (group effect p = .278).
Li et al. (2018)	RCT (pilot)	Psychological / skills based	SFBT (Solution Focused Brief Therapy). Four individual sessions based on the SFBT (2013) manual.	Yes	BSI-18 (Chinese version) (Wang et al., 2013)	Parents receiving SFBT reported significantly lower parental distress (F = 16.53, p < .001), depressive symptoms (F = 12.9, p < .001) and anxiety (F = 15.81, p < .001) following the intervention. The SFBT was not found to be superior on reducing parents' somatization in comparison to TAU (F = 2.62, p = .11). The within and between group effect sizes were significant which indicates the SFBT intervention made meaningful improvements among parents' somatization.
Pouraboli et al. (2019)	RCT	Mind-body	Relaxation Training. Involved a form of respiratory relaxation, consisting of educational content and the researcher carrying out the technique. Participants were asked to perform the technique in the presence of the research to ensure accuracy. Participants were then	Yes	STAI (Spielberger et al., 1983).	Following the intervention, the intervention group reported significantly lower state anxiety (mean change = 24.91, SD = 5.03) than the control group (mean change = 11.00, SD = 4.30) (Z = -9.44, p = 0.0001). They found the intervention group reported significantly lower trait anxiety (mean = 22.11, SD = 4.08) in comparison to the control group (8.00, SD = 3.21) (Z = -9.39, p = 0.0001).

			asked to perform the technique twice per day for 20-minutes, over four weeks.			
Shaygan et al. (2025)	Quasi-experimental	Mind-body	Resilience training. The manualised treatment consisted of 6 weekly sessions lasting 60-90 minutes. The intervention covered stress management, cognitive restructuring and positive psychology techniques.	Yes	State Anxiety Inventory (SAI) (Spielberger et al., 1983). State anxiety items from the State Anxiety Inventory for Children (SAI-C) (Schisler et al., 1998).	Post intervention, parents who completed the resilience training intervention reported significantly lower state anxiety than those in the control group Wald $x2(1) = 25.91$, $p < .001$, $B = -1.67$, 95% CI [-2.32, -1.03]).
Thygeson et al. (2010)	Pre-post	Mind-body	Yoga. Yoga class held in the inpatient unit and lasted 45-minutes. It consisted of standardised exercises with blended active and restful poses. Adaptations were made where needed to meet participants need.	No	STAI (Spielberger et al., 1983). STAI for children (STAIC) (Spielberger et al., 1973). Open ended question “What would you tell another parent or child about what it is like to take a yoga class?”	Amongst parents, pre-intervention anxiety scores (mdn = 45) were significantly higher than post-intervention scores (mdn = 30), $Z = -5.00$, $p < .001$. Qualitative analysis affirmed the quantitative findings and found seven themes from the open-ended question. Themes identified were: relaxation; exercise and movement; stress relief; calm and centered; self-care; bonding with their child; easy and better than expected.

Wu et al. (2023)	Quasi-experimental	Entertainment/ play based	Medical clowning. Pairs of medical clowns visited the parent-child dyads twice per week. The medical clowns would use humorous interactions and instruments to create a joyful atmosphere.	No	Brief Symptom Rating Scale (BSRS-5) (Lee et al., 2003). Mood Assessment Scale.	1 day	Significant differences between the intervention (mean = 4.19, SD = 0.67) and control groups (3.27, SD = 0.82) emotions post intervention *(p* < .000). The direct effect of intervention on parents' emotions one day after the intervention was significant (β = 0.47, SE = 0.13, 95% CI [0.22, 0.71], p < .001). They also reported an indirect effect of the medical clowning on parents' emotions through their children's emotions, and found the impact was significant (β = 0.44, SE= 0.12, 95% CI [0.21, 0.68], *p* <.001). This suggests the child's emotions indirectly affected the parents' emotions. Overall, they reported the total effect of medical clowning on parents' emotions to be significant (β=0.91, SE=0.14, 95% CI [0.63, 1.19], p<.001).
Zhang et al. (2018)	RCT (pilot)	Psychological/ skills based	SFBT. The intervention involved four, individual sessions (spanning over 2 weeks) and was based upon the Solution Focused Therapy Treatment Manual for Working with Individuals) Trepper et al., 2008).	Yes	BSI-18 (Chinese version) (Wang et al., 2013).		The SFBT intervention group reported statistically significant reductions compared to the control group, *F*(1) = 17.315, *p* < .001, with a large between-group effect size (*d* = 1.241, 95% CI [0.839, 1.642]).

Overview of Findings

Type of Intervention

Psychological / Skills-Based Interventions. Five studies adopted a psychological/skills-based intervention (Jimenez et al., 2025; Jin et al., 2025; Jin et al., 2023; Li et al., 2018; Zhang et al., 2018). All adopted an RCT design, with three of the five being pilot RCTs (Jin et al., 2023; Li et al., 2018; Zhang et al., 2018). Sample sizes ranged between 40 and 200 participants, consisting of an average of 73.23% female participants. Key outcomes assessed were anxiety, psychological distress, and quality of life. Overall, all studies reported improvements in the targeted outcomes, but the strength of the evidence varied due to study methodology. Four studies (Jimenez et al., 2025; Jin et al., 2025; Li et al., 2018; Zhang et al., 2018) reported statistically significant greater improvements in the targeted outcomes in comparison to the control groups (see Table 2.3).

Both Solution Focused Brief Therapy (SFBT) trials (Li et al., 2018; Zhang et al., 2018) used the BSI-18 measure and reported significant reductions in psychological distress compared with control groups. Li et al. (2018) found parents who received SFBT reported significantly lower parental distress ($F = 16.53$, $p < .001$), depressive symptoms ($F = 12.9$, $p < .001$) and anxiety ($F = 15.81$, $p < .001$) following the intervention. Zhang et al. (2018) replicated these results and reported the SFBT intervention group to have significant reductions in distress compared to the control group, $F(1) = 17.315$, $p < .001$, with a large between-group effect size ($d = 1.241$, 95% CI [0.839, 1.642]). These results indicate SFBT is effective in reducing psychological distress amongst both oncology and cardiovascular paediatric parents. Neither study was sufficiently powered, having determined a sample size of 84 participants, but followed pilot study guidance of 30 participants. They therefore used ANCOVA to improve the poor statistical power caused by the small sample sizes.

Similarly, Jimenez et al. (2025) also reported consistently significant reductions in state and trait anxiety compared to the control group. Overall, they found significantly greater reductions in anxiety amongst the treatment group (mean reduction 21.88 versus 8.06; $p = 0.0005$). This demonstrates the VR-based mediation intervention may be beneficial and effective in reducing anxiety amongst this population.

Studies evaluating the ACT intervention reported contrasting results. The initial pilot RCT (Jin et al., 2023) reported that although the ACT group scores in the DASS-21 measure reduced from a mean score of 29.60 (SD = 21.96) to 18.32 (10.36), compared to the control group reducing from a mean score of 32.10 (SD = 33.40) to 22.74 (24.25), it did not yield significantly greater improvement in comparison (group effect $p = .774$). Similarly, both groups reported improvement in quality of life from pre to post intervention. The intervention group reported a mean of 53.31 (SD = 18.51) reduced to a mean of 61.78 (SD = 9.92), in comparison to the control group mean of 60.06 (SD = 22.47), reduced to 64.87 (SD = 17.51). The difference was not significant (group effect $p = .278$). As the study was under powered, conclusions cannot be drawn and larger trials were needed to understand these results.

The larger RCT (Jin et al., 2025) found significantly greater reductions in distress and improvements in quality of life across time points. They reported quality of life of those in the ACT group experienced significantly greater improvements at both T1 ($\beta = 8.61$; 95% CI: 3.42–13.80; $P = .001$; $d = 0.58$) and T2 ($\beta = 8.52$; 95% CI: 2.79–14.26; $P = .004$; $d = 0.49$). Similarly, those in the ACT group reported significantly greater reductions in psychological distress at T1 ($\beta = -13.54$; 95% CI: −20.04 to −7.03; $P < .001$; $d = 0.72$). The improvement was also evident at T2 ($\beta = -11.86$; 95% CI: −18.92 to −4.80; $P = .001$; $d = 0.61$). However, for both the quality of life and anxiety measures, the effect size reduced across time points, but did remain statistically significant. This suggests further understanding of the longer-term impacts is required. This was the only study to include a follow-up period of three months,

with the majority including no follow-up (Jimenez et al., 2025; Li et al., 2018; Pouraboli et al., 2019; Shaygan et al., 2025 Thygeson et al., 2010; Zhang et al., 2018), one day (Wu et al., 2013), one week (Jin et al., 2022), or two week (Başgöl et al., 2025;) follow-up periods. Therefore comparisons and conclusions cannot be drawn for the longer-term impacts of the intervention.

All psychological/ skills-based interventions showed some improvements, but the strongest evidence was depicted in SFBT and VR mediation interventions. ACT findings were mixed and require adequately powered trials. The findings of the pilot RCT studies should be interpreted cautiously due to the sample size and the aim of the studies being to understand the feasibility of the interventions.

Mind-Body Interventions. Four studies evaluated the use of mind-body interventions (Başgöl et al., 2025; Pouraboli et al., 2019; Shaygan et al., 2025; Thygeson et al., 2010). RCT (n = 2), quasi-experimental (n = 1) and pre-post designs (n = 1) were used. Sample sizes ranged from 56 to 120 participants. Studies reported an average of 80% of female participants (of those studies which reported it), with one study only including female participants (Shaygan et al., 2025). All studies assessed anxiety as the primary outcome.

Pouraboli et al. (2019) evaluated the effectiveness of relaxation training upon parental anxiety. Participants were recruited from hospitals in Zahedan, but the number of hospitals is unknown. Participants were randomly assigned to either the experimental or control group. They found participants in the intervention group experienced significantly lower state anxiety (mean change = 24.91, SD = 5.03) than the control group (mean change = 11.00, SD = 4.30) ($Z = -9.44$, $p = 0.0001$) following the intervention. Those in the intervention group also reported a significantly greater reduction in trait anxiety (mean = 22.11, SD = 4.08) in comparison to the control group (8.00, SD = 3.21) ($Z = -9.39$, $p = 0.0001$). Similarly, Başgöl

et al. (2025) recruited from one hospital. They reported those in the reiki group had significantly different pre and post anxiety scores ($t = 4.209$, $p = 0.001$), but no significant differences were found in either the placebo ($t = 1.545$, $p = 0.130$) or control group ($t = 0.525$, $p = 0.602$). They concluded the reiki intervention to be the only group to experience measurable difference in anxiety. Although both studies adopted a RCT approach, the generalisability of the results is poor, as it is not clear how many hospitals were included in the study (Pouraboli et al., (2019) or only included participants from one hospital (Başgöl et al., 2025). Of note, Başgöl et al. (2025) included mothers only and therefore the generalisability of the results is further limited. Shaygan et al. (2025) reported that post-intervention, parents who completed the resilience training intervention recorded significantly lower state anxiety than the control group, Wald $x2(1) = 25.91$, $p < .001$, $B = -1.67$, 95% CI [-2.32, -1.03]). This suggests the intervention was associated with greater reductions in anxiety compared to the control group. The study adopted a non-RCT design and analysis revealed no significant differences between groups ($p > .05$) pre-intervention. However, there was no formal control over confounding variables in analysis which could have impacted the outcome. Furthermore, the sample only consisted of mothers from one hospital, so the effectiveness of the intervention is unknown amongst a wider sample or amongst fathers.

The evaluation of a yoga intervention on parental anxiety (Thygeson et al., 2010), was the only study to report both quantitative and qualitative data. Amongst parent participants, pre-intervention anxiety scores (mdn = 45) were significantly higher than post-intervention scores (mdn = 30), $Z = -5.00$, $p < .001$. Qualitative findings affirmed these results, with themes such as relaxation, stress-relief, and calming being identified. According to the MMAT criteria for mixed-methods study, the methodology is strong. However, it should be noted that the quality of the quantitative data is weak. The study did not include a control group, so it cannot be concluded that the intervention causes the reduction in scores. As the

measures were completed immediately after the intervention, the longer-term impact of the intervention is also unclear. This therefore reduces the usefulness of the results.

Overall, mind-body interventions demonstrated promising results in reducing parental anxiety, but the strength of evidence ranged. The yoga intervention was the only study to provide quantitative and qualitative results (Thygeson et al., 2010), but did not include a control group which significantly reduced the strength of the results. Studies were generally limited by small sample sizes, female only samples and methodological limitations.

Entertainment/ Play-Based Intervention. One study evaluated the use of entertainment/ play-based interventions (Wu et al., 2023), involving parent-child dyads. The study included a control group, but participants were not randomly assigned. Participants were assigned based on which hospital they were based at. Overall, they found medical clowning to have a significant positive impact on parents' emotions (β=0.91, SE=0.14, 95% CI [0.63, 1.19], p<.001). Of note, they also reported the positive indirect effect of the intervention on parents' emotions via their child's emotions and found the impact to be significant (β = 0.44, SE= 0.12, 95% CI [0.21, 0.68], p <.001). This suggests medical clowning is effective in improving parents' mood by influencing the child's emotions. However, given the short follow-up period (1-day), the long-term impacts are unknown. Due to the lack of random allocation, results may also be explained by pre-existing variables rather than the intervention.

Comparison of Intervention Types. Overall, all intervention types demonstrated promise in improving parental well-being. SFBT, VR-based meditation, relaxation training and yoga interventions all demonstrated strong results in reducing distress and anxiety. ACT, relaxation, reiki and resilience training also showed promising results, but results were more limited due to small sample sizes and/or mother only samples.

Parent and Child Interventions

Only two studies involved parent and child interventions (Thygeson et al., 2010; Wu et al., 2023). These differed from the other studies as they targeted the dual outcomes of the interventions on both parents and the children. Thygeson et al. (2010) evaluated the yoga intervention, designed for parents and their child. A qualitative theme highlighted by parents was bonding with their child. Combined with the quantitative results, the results of this study suggest the yoga intervention had a beneficial impact on anxiety levels of parents and can be helpful in supporting parent-child connectedness during stressful periods of time. This is similar to the findings from Wu et al's (2023) study, which suggests interventions which impact a child's emotional experiences may indirectly influence parental emotional experiences. However, neither study involved a control group to compare natural variation. Thygeson et al. (2010) includes no follow-up and Wu et al. (2023) collected post-intervention data one day following the interventions, therefore it is unknown whether the impacts are sustained over a longer period.

The two studies indicate benefits which using a parent and child approach can yield. A feeling of connectedness and the impact of the child's well-being appear to be particularly significant. However, this review only includes a small number of parent and child interventions of which have methodological limitations.

Condition-Specific Interventions

Across conditions, interventions were found to be effective with varying rates of success. The most reported sample was parents of children with cancer (n=6). The large number of studies within this setting may reflect what services are offering, and potentially the significant emotional burden associated with the disease, with a large proportion of parents experiencing overwhelming psychological distress (Jin et al., 2025). All studies evaluating the effectiveness of interventions amongst this group found interventions to have

positive impacts on the targeted outcome, regardless of the type of intervention. This suggests due to the immense uncertainty and suffering children with cancer experience (Thygeson et al., 2010), parents may benefit from structured interventions to support their well-being. However, interventions were not equally effective. Although Jin et al. (2023) reported some reductions in symptoms, the ACT intervention did not yield significantly greater improvements compared to the control group. Results may have been impacted by the small sample size, but it should also be considered that the severity of the illness does not guarantee all interventions will be effective in supporting parental well-being.

As with cancer patients, paediatric patients with congenital heart disease (CHD) are amongst those most vulnerable and rely heavily on their parents (Li et al., 2018). To take part in Li et al's. (2018) study, parents had to meet the BSI-18 cut off score (>13 for male and >10 for male) (Zabora et al., 2001). Similarly, the criterion for participation in Shaygan's et al. (2025) evaluation of resilience training, both child and parent had to report scores of above 54 on the SAI, which indicates significant anxiety levels. Although both studies found the interventions to significantly reduce distress compared to the control groups, it is unknown if the interventions would be as effective in reducing distress amongst parents experiencing less acute distress.

Two studies included parents of children on generic paediatric wards (Başgöl et al., 2025; Jimenez et al., 2025). Both studies reported significant reductions in anxiety compared to the control group. These studies do not report the health conditions of the children; thus, the severity and nature of the conditions is unknown. The results imply structured interventions can be beneficial in reducing anxiety amongst parents in non-condition specific settings. These results are therefore particularly useful in generalising to the wider paediatric population.

Country of study

The prominence of studies being conducted in Asia (n = 8) and the USA (n = 2) may limit the generalisability of the results to Western publicly funded systems, such as those using NHS type models. Of note, the USA typically employs an insurance-based system, whereas Asia uses a mixture of insurance based and public funding systems.

Discussion

Summary of Key Findings

Overall, findings indicate structured, psychosocial interventions generally lead to improved psychological well-being of parents within inpatient paediatric settings. In terms of psychological/skills-based interventions, SFBT, and VR-based meditation showed the most promise. Mind-body interventions found promising results, but the strength of the evidence varied based on methodological limitations. Findings for the ACT interventions were mixed and appeared sensitive to the small sample size. Most studies involved parents of cancer patients, but positive effects were observed across condition-specific and general paediatric settings. This suggests structured interventions could be beneficial across settings. Although only two studies included children as part of the interventions, results were positive, implying potential indirect pathways of supporting parental well-being. Further research is needed to understand whether parent-child interventions offer additional benefits to parent-only interventions.

Gaps and Unanswered Questions

A crucial unanswered question from this review is the long-term impacts of the interventions. Many of the interventions were also offered no, or short follow-up periods. It is unclear whether the immediate improvements observed are sustained. This is important to

understand the efficacy of interventions in supporting parental well-being in the long-term and requires further research.

Given only two of ten studies involved parent-child interventions, it is difficult to make comparisons between the potential benefits of parent-child compared to parent only interventions. Although results are promising, it remains unclear if parent-child interventions have added benefits upon parental well-being, for example whether feelings of closeness with the child or the child's mood being improved, consistently further improves the emotional experiences of the parent.

A clear gap within the review is an understanding of the pharmacological support participants were having and if and how this interacted with the efficacy of the interventions. Most studies did comment on psychiatric disorders or medication as part of their eligibility criteria. Others stated in their criteria that participants must have no history of psychiatric disorders (Jin et al., 2023; Jin et al., 2025; Shaygan et al., 2025), or take medication for these (Başgöl et al., 2025), or had to meet minimum screening scores on the BSI-18 (Zhang et al., 2018). Given the high rates of not reporting of pharmacological support, it is unclear how this may impact the effectiveness of the interventions. Any changes may be accounted for by pharmacological support rather than the intervention, but this is unclear given the lack of reported data. It is difficult to compare the efficacy of the interventions given the changing criteria for psychiatric history of participants. Furthermore, there is limited information about the child's illness, such as deterioration or improvement over the time frame, which may also impact parental outcomes.

Sampling Gaps

An important gap to note was the predominantly female participants, with some studies only including mothers. This limits the applicability of results to males and other

caregivers. Further research is needed to understand whether interventions are as effective across genders and other caregivers. Furthermore, there is limited research comparing the impact of paediatric admissions on fathers compared to mothers. The limited pool consistently finds mothers report higher distress compared to fathers (Barrera el al., 2012; Nelson & Gold., 2012). Mothers increased levels of distress suggests this is where resources should be focused. However, fathers still report distress during paediatric admissions, thus efforts should be made to improve recruitment of fathers into research to increase understanding and improve the support offered.

The predominance of studies conducted in Asia and the USA signifies a gap in research within other healthcare systems and may limit generalisability to publicly funded health care systems, such as the NHS. The funding of health care systems is important to consider in terms of accessibility of the interventions, as it may influence availability of interventions and who can afford to access them. Cultural differences may also impact help-seeking behaviour and reporting of symptoms. For example, Yin et al. (2020) report high levels of stigma existing within China towards mental health. This could influence help-seeking behaviour and the reporting of symptoms following treatment. Intervention effectiveness cannot therefore be assumed across healthcare systems and cultures.

The review included a large representation of oncology settings. Due to the severity of the disease, these parents are likely to experience higher levels of distress and longer hospital stays. Some studies also employed clinical cut-off scores. Combined, this may mean the results reflect those experiencing significant levels of distress. A gap remains in understanding the effectiveness of interventions amongst parents experiencing lower levels of distress.

Study Designs

The frequent use of pilot RCTs should be considered when interpreting results. Three studies employed a pilot RCT design, with four studies having less than 60 participants. The purpose of these studies is to assess feasibility, rather than efficacy. Small sample sizes limit the statistical power of the studies and the ability to detect a true effect (Shreffler & Huecher, 2020).

Four studies failed to report whether the outcome assessors were blinded to the intervention provided. Research reporting lack of blinding is associated with substantially biased effect sizes (Higgins & Altman, 2008; Hróbjartsson et al., 2013). Consequently, results of these studies should be interpreted cautiously.

Strengths and Limitations of the Systematic Review

Strengths of this review include a reproducible search and independent double – screening and quality appraisal, thus reducing any selection bias. However, only a small number of studies were able to be obtained, many of which were pilot RCTs with small sample sizes. It is also possible the search was influenced by selection and language bias. RCTs are widely considered the 'gold standard' within research due to the reduced risk of bias (Hariton & Locascio, 2018; Lange et al., 2017), therefore the inclusion of non-randomised studies and pilot studies weakens the quality of the data available. As with all reviews, publication bias may have occurred and studies reporting non-significant findings may be under reported, which could lead to overestimation of intervention effects (Dwan et al., 2008).

The review focused on peer-reviewed literature and did not incorporate grey literature. Although this ensured studies included had undergone academic quality appraisal, it may have excluded relevant literature such as service evaluations, quality improvement projects, and other interventions which have not been formally published. This may explain

the lack of UK-based studies, as psychological support for parents may be delivered as routine clinical practise, without publication. Therefore, the review highlights the lack of published interventions, but does not necessarily reflect a lack of support interventions currently offered within the UK. Future reviews should incorporate reviews of grey literature to provide a comprehensive understanding of the support available.

Implications for Practice, Policy and Research

In terms of clinical practise, this review suggests brief psychosocial interventions are effective in improving parental well-being within paediatric inpatient care. Given the acute distress parents face during this time, developments are needed to make routine screening and referrals standardised practise.

When considering future research, larger RCTs with more diverse samples are needed to address the gaps in this review. Under representation of fathers within this field is a substantial issue. Solutions may include creating recruitment campaigns to specifically target fathers, co-production of research with fathers to further understand barriers to engagement, and ensuring a variety of data collection methods are utilised to account for challenges fathers may have in discussing emotion topics (Harniess et al., 2023). Future research should also include longer follow-up periods to understand the sustainability of the interventions. It would be beneficial to report on concurrent pharmacological treatment to understand if and how these impact the effectiveness of the interventions.

Conclusion

This systematic review suggests structured, psychosocial interventions can be effective in improving the psychological well-being of parents during inpatient, paediatric stays. A particular focus of the review was outcomes relating to psychological distress and anxiety. In general, psychological and skills-based interventions showed the most consistent findings,

although findings from ACT interventions were mixed. The results from mind-body interventions were also promising, but generally weaker evidence due to methodological limitations. The review highlights the needs for larger studies, with more diverse participants and longer follow-up periods to strengthen the evidence base.

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Chapter 3: Bridging Chapter

The systematic review in Chapter Two found that structured, psychosocial interventions can be effective in improving parental well-being during paediatric hospitalisation. Overall, psychological and skills-based interventions showed the most promising findings. Limitations of the review should be considered, such as the inclusion of pilot designs, majority female participants, and lack of substantial follow-up periods to examine the long-term impacts of the interventions.

Despite the review identifying numerous interventions which resulted in improved psychological outcomes for parents, there are no specific guidelines outlining what and how support should be offered during paediatric hospitalisations. None of the studies included in the review were UK based. This may be explained by studies not meeting the criteria for the review, not including grey literature, or perhaps indicates the UK offer fewer formal interventions to support the well-being of parents during this time.

Moreover, research has outlined that poor parental well-being can have a negative impact on the child's physical and mental health (Alisic et al., 2011; Dunn et al., 2012; Michals & Reeder, 2023, Ribas et al., 2024; Yesil & Butun, 2025). Therefore, if parents do not receive support during this acutely stressful time, this may negatively impact the mental well-being of the child.

A large proportion of paediatric hospitalisations are due to LTHCs. The risk of developing anxiety is higher compared to other psychiatric disorders (Togethoff et al., 2015) amongst children with LTHCs, but this may vary depending on the physical condition. Research has established anxiety is one of the most reported childhood psychiatric disorders amongst children (Hill et al., 2016; Morales-Muñoz et al., 2023). A national survey conducted in 2017 found anxiety to be the most common type of psychiatric disorder reported

in young people at 5.3% (NHS Digital, 2023). Craske and Stein define anxiety as excessive fear, worry or avoidance behaviours in response to perceived threats. The response is disproportion to the actual level of risk. They state anxiety consists of ongoing concerns about potential future threats (Craske & Stein, 2016). The development of anxiety disorders is thought to be caused by an interplay between numerous factors, including heritable, developmental, cognitive, social, and environmental factors (Al-Biltagi & Sarham., 2016). Adjusting to and managing the medical condition, handling setbacks and poor outcomes are all likely to contribute to the child's overall well-being (Mercer et al., 2015). The impact of these factors may vary depending on the LTHC.

Unlike the review, the empirical study presented in Chapter Four attempts to contribute to the evidence-base of specifically designed, psychological support for children with a LTHC. The training is delivered to carers and aims to provide psychoeducation around anxiety in context of the child's LTHC, as well as some practical strategies to consider using with the child to support the child's anxiety. The strategies are based on Acceptance and Commitment Therapy (ACT) principles. ACT is an emerging treatment which has been found to effective in reducing psychological distress (Konstantinou et al., 2023; Parmar et al., 2021) and anxiety (Li et al, 2025) in children. The study will aim to assess the feasibility, acceptability, and limited efficacy of the newly developed training amongst carers of children with a LTHC, to determine whether a randomised control trial is warranted to examine the effectiveness of the training.

This portfolio aimed to improve understanding of support across the family system. Therefore, the decision was made for the systematic review to focus on parental wellbeing, whereas the empirical project focused on the child's wellbeing, via an intervention delivered to carers.

Chapter 4: Empirical Study

To be submitted to the Journal of Behavioural and Cognitive Psychotherapy

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An Acceptance and Commitment Therapy Psychoeducation Single Session Intervention on Childhood Anxiety for Carers of Children with a Long-Term Health Condition

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Abstract

Background: Children with a long-term health condition (LTHC) are at increased risk of developing anxiety, but access to appropriate support is limited. Online, caregiver-led interventions may offer an accessible and cost-effective approach.

Aims: To evaluate the feasibility and acceptability of a newly developed, online psychoeducation training, designed to help caregivers support their child's anxiety associated with their LTHC.

Method: A quantitative feasibility design was conducted, employing a within-subjects design. Participants were required to complete a pre-intervention measure, including a demographic questionnaire and the Parent Attitudes, Beliefs and Understanding about Anxiety (PABUA) and then complete the online training package. Participants were asked to complete feedback questionnaires to assess the acceptability of the training. Participants were contacted two-weeks after and asked to repeat the PABUA and complete another feedback questionnaire.

Results: Amongst the small number of participants, the training and research procedures were generally considered acceptable. The training was rated positively, with participants reporting they found the training helpful and applicable. However, recruitment and drop-out rates suggest poor feasibility. Recruitment and retention rates were not met, which limited the outcomes regarding feasibility of the training and statistical power. Analysis of the PABUA revealed significant improvement in the approach subscale scores, but not in overprotection or distress.

Conclusions: The training was deemed acceptable and showed promise. Significant recruitment difficulties indicate that refinements are needed before progressing to a pilot randomised controlled trial.

Introduction

Research has established children with long-term health conditions (LTHC) are significantly more likely to develop psychiatric symptoms such as anxiety and depression (Bennett et al., 2015; NICE, 2019; NICE, 2022). Effective treatment is needed to improve the child's emotional well-being and minimise the potential negative impacts on their physical health (NICE, 2019).

Acceptance and Commitment Therapy (ACT) is an emerging treatment for enhancing psychological well-being (Parmar et al., 2021) and reducing psychological distress in children (Konstantinou et al., 2023; Parmar et al., 2021). Of note, Li et al. (2025) conducted a review to compare the most effective interventions for anxiety disorders in children and adolescents and concluded ACT was most effective. The results of Petersen et al. (2024) randomised controlled trial (RCT) further supports the use of ACT for enhancing psychological well-being. They observed significant decreases in the treatment group compared to the waitlist. Similarly, Binder et al. (2023) conducted a systematic review and found ACT to be effective in reducing stress in young people (aged 7-18 years). However, the reviews included small samples and the overall quality of evidence was weak, therefore the results should be interpreted cautiously.

Relatively little research has been conducted within paediatric settings, specifically amongst those with LTHCs. Parmar et al. (2021) conducted a systematic review on the use of ACT amongst children with special health care needs and their parents. They found ACT to be an effective treatment for depressive symptoms, avoidance, and fusion behaviour for children, but no significant differences in anxiety scores were found. Amongst parents, ACT was beneficial for improving psychological flexibility.

Dochat et al. (2021) systematic review concluded single-session ACT interventions were successful in improving depression and anxiety amongst adults with LTHCs. They found the use of single session allowed for a large amount of information to be delivered in a short time. This study is important to consider as it evaluates the use of ACT amongst those with LTHCS. However, the review did not formally assess risk of bias across the studies. This review also included adults and therefore results cannot be generalised to younger populations.

Parent led interventions could improve early access to interventions, and help to reduce perceived stigma and disruption to the child's life (Creswell et al., 2023; Creswell et al., 2024). Meta-analysis's evaluating parent only interventions (Jewell et al., 2022) and parent-led CBT (Yin et al., 2021) have been found them to be effective in reducing anxiety symptoms. However, research has not yet appeared to investigate the effectiveness of parent-led ACT interventions for childhood anxiety. Caregiver targeted interventions amongst the paediatric population may reduce burdens on children to attend appointments to prevent missing out on age-appropriate activities, and support caregivers to put daily strategies in place (Cresswell & Willetts., 2019).

NICE guidelines have prioritised digitally enabled care within children's mental health services (NICE, 2023), hoping to consequentially improve accessibility to psychological interventions (Creswell et al., 2024). Creswell et al. (2024) reported promising outcomes for the use of digitally augmented CBT treatment for childhood anxiety, which is useful research in understanding real-world implementations of interventions such as these.

Based on the above literature, the aim of the study was to evaluate the feasibility and accessibility of a newly developed, online psychoeducation training designed to help caregivers support their child's anxiety associated with their LTHC. The content of the

training was grounded in ACT principles. Although there remain gaps in the evidence base, an ACT approach was chosen as its principles appear relevant for the target population. Children with LTHCs can face ongoing uncertainty which cannot necessarily be cognitively challenged. Instead, ACT promotes psychological flexibility and engagement in meaningful activities (Dochat et al., 2021) which may be a helpful framework for carers to support their child's anxiety. As it is a new training, is it crucial to assess its feasibility and estimate design parameters (Eldridge et al., 2016; National Institute for Health Research, 2021), to inform a future RCT.

Methods

Design

To determine whether this new training is appropriate for future testing, a quantitative feasibility design was conducted, employing a within-subjects design.

Participant and Public Involvement (PPI) informed the development process. PPI consisted of individuals who met the study eligibility criteria; they were met with individually or in pairs. PPI recruitment took place via social media. They were reimbursed for their time. PPI input included reviewing all paperwork, as well as development of the videos, such as the design and making informed decisions about which exercises should be incorporated. For example, most felt the 'Put your worries on a cloud' exercise was valuable, but some were concerned the concept was too abstract for younger children, hence also the inclusion of the leaves on the stream to meet the needs of younger children. Inclusion of PPI was important to improve recruitment (Crocker et al., 2018), the overall quality of the research and subsequent impact on findings (Crocker et al., 2017; Evans et al., 2015).

Participants

Eligibility Criteria

Primary caregivers of children aged 5-12 years with a LTHC were eligible. This age range aligns with research which examined the effectiveness of parent-led treatment for childhood anxiety (Creswell et al., 2024). Carers of children with a learning disability or waiting for an assessment for a learning disability (not including ADHD and dyslexia) were excluded from the study. Parents of children with Autism were also excluded due to adaptations to the training which would have been needed. Participants were UK residents, aged over 18, had access to an electronic device, and had sufficient English proficiency. All participation was voluntary.

Sample Size

A target of 30 participants was set in line with feasibility study recommendations (Browne, 1995; Whitehead et al., 2016). G Power software (Erdfelder et al., 1996) was utilised to conduct a power calculation, to estimate the minimal sample size needed to achieve a medium effect size (0.5) at a 0.05 significant level for a one tailed- within-subjects study. The power was set at 0.8 in line with guidelines (Cohen, 1988). Calculations showed a minimal number of 27 participants were needed to meet the requirements to achieve a fully powered study. The minimum sample size for the study was set to 30 participants, to account for attrition problems.

Recruitment Processes

Four Clinical Psychologists working within local NHS Trusts acted as gatekeepers. They disseminated the study advert in clinic spaces and shared the study with colleagues. At one site, HLW attended several clinics and was positioned in the waiting room with large posters. Clinicians were encouraged to signpost any potential participants to HLW to answer any questions. The gatekeeper at this site was also very proactive in sharing the study with all

referred for anxiety difficulties, as well as sharing with the psychoeducation group which was running for parents at the time. Social media advertisements were also used in attempt to overcome previous difficulties, feasibility studies have had in recruiting a diverse sample (Nicola, 2023).

A total of twenty-four charities were contacted to request support with recruitment. Six shared the study on their social media pages and two (Diabetes UK and Crohn's & Colitis UK) created webpages to advertise the research. Epilepsy Action distributed the research to their database of research volunteers.

The University of East Anglia shared the research via email with their database of research volunteers. The email was sent to 2636 potential participants with children of the correct age, but it is unknown how many of these met the full eligibility criteria. The university also shared the study on social media.

Training

The training package consisted of three videos, with a total duration of 22 minutes, in line with PPI recommendations about the length of the training. Online delivery was chosen to increase accessibility (Creswell et al., 2024). The training package was accessed via a single link. The link was hosted by Jisc and supported participants through each step. The link provided access to all forms and questionnaires, and embedded the training videos.

The training video scripts and animation were written and developed by HLW. The videos were created using VideoScribe, which has been successfully used to create similar videos in the past (Nicola, 2023). The video voiceovers were recorded using Audacity software. Videos were hosted privately on YouTube and integrated into the Jisc programme. The content of the videos was heavily influenced by 'ACT for treating children: The essential guide to acceptance and commitment therapy for kids' (Black, 2022).

The training was designed for the carers of children with a LTHC and was not delivered to the children directly. The first video introduced the purpose of the training and what it would involve. The video detailed what anxiety is, anxiety symptoms, and introduced the concept of the fight, flight and freeze responses (Cannon, 1929). This video also discussed the prevalence of anxiety amongst children with LTHCs, the rationale for why caregivers are participants for the study, and introduced key concepts of ACT (Hayes et al., 1999).

The second video covered ACT-based metaphors and strategies that caregivers could consider implementing with their child. The metaphors included 'Passengers on the Bus' (Hayes et al., 1999) and 'The Sky and The Weather' (Bennett & Oliver, 2019). Exercises included 'Put your worries on a cloud' (Contextual Consulting, 2024) / 'Leaves on a Stream' (Webster, 2011), 'Don't think about the Purple Elephant' (Hayes et al., 2011), and the 'Blowing Bubbles' exercise (Black, 2022). The 'Don't think about the purple elephant' exercise was adapted from the 'Don't think about the chocolate cake' exercise (Hayes et al., 2011) due to dietary restrictions which some children with a LTHC may have.

The final video focused on self-compassion, highlighting the common occurrence of being self-critical amongst those who are anxious. The video included a self-compassion letter writing exercise for both the child and parent (Black, 2022; Coyne & Murrell, 2009). The importance of a self-compassion exercise for parents was highlighted by PPI who felt it was important to acknowledge the challenges carers can face and normalise this experience.

Links to the videos are found in Appendix L.

Measures

Demographic Questionnaire

Demographic information was collected regarding age, gender, ethnicity, and previous mental health training for the participant. Information regarding child's age, physical health diagnosis, time since diagnosis, and previous input from psychological services for the child was also collected. This enabled analysis between participants' and their child's demographic factors and their responses to the training.

Parent Attitudes, Beliefs, and Understanding about Anxiety (PABUA) (Wolk et al., 2016)

To assess any change in knowledge, the PABUA measure was completed pre-training and 2-weeks post completion. The measure was designed to evaluate parental beliefs about their child's anxiety, as well as their perceived ability to cope and manage their child's anxiety. It also aims to assess the parents understanding of parenting strategies in response to their child's anxiety (Wolk et al., 2016).

From current research, the PABUA has demonstrated convergent and divergent validity, as well as adequate to good internal consistency (Cronbach's $\alpha = .83$) (Wolk et al., 2016). Despite limited research, the measure was chosen as it was viewed as the most relevant measure to address the desired outcome. When completing the measure, participants were asked to base their responses in relation to the child with a LTHC, as their responses based on their other children may differ.

Structured Feedback Questionnaire

The structured feedback questionnaire was developed in collaboration with PPI for the purpose of this study. The measure focused on feasibility and accessibility elements, such as the consent process, video content, timing, and format of the videos. The questionnaire employed a Likert scale, which are commonly used to gage understanding of participants opinions (Willits et al., 2016). These date were collected immediately after completion of the training.

Follow-Up Structured Feedback Questionnaire

The follow-up structured feedback questionnaire was also developed in collaboration with PPI representatives and used a Likert scale. The measure focuses on participant's experiences of the training and reviews their use of the suggested strategies. These data were collected at the 2-week follow-up.

Procedure

Following ethical approval, adverts were disseminated via gatekeepers and social media. The link was active from September 2025-February 2026. Participation was optional and participants were offered to be entered in a prize draw for completing the study. The link took participants to the information sheet and consent form, to be read and signed. Participants were then automatically taken to the online pre-training measures, consisting of the demographic and PABUA questionnaires. Participants could then access the training videos. Participants were also provided with a PDF to download with reminders of the strategies within the training. They were they were presented with the post-training questionnaires. Participants were provided with the debrief form. In line with PPI guidance, this process took no longer than 60 minutes.

Two weeks later, if participants had consented to complete the follow-up, they were emailed with links to repeat the PABUA and the complete the follow-up structured questionnaire.

Ethics

Ethical approval was granted by NHS Health Research Authority (IRAS project ID: 349484, REC reference: 25/SW/0067). Participants all provided informed consent online, as detailed in the procedure.

Analysis Plan

SPSS Statistics Version 29 was used to conduct quantitative analysis. Analysis of the demographic and feedback questionnaires was descriptive. This involved reporting frequencies, percentages, means, and standard deviations. Recruitment and drop-out rates were also recorded.

Change in knowledge following the training was measured using a Wilcoxon Signed-Rank Test (paired-sample T-Test non-parametric equivalent), using the total scores from the PABUA measure, pre-training and the follow-up. Measures were matched via participant ID numbers.

Qualitative data from the structured feedback and follow-up structured feedback questionnaires were analysed using content analysis. The questions included: ‘If you feel another format for the training would have been more appropriate, please specify’; ‘Please provide any further comments about the training’; ‘Please specify any challenges you have faced with using the training’; ‘Do you have any general feedback which has not otherwise been covered?’

Results

Demographic Data

Frequencies and percentages of all demographic data are summarised in Table 3.1 and 3.2. Seventeen participants were recruited at baseline, with eight completing the follow-up.

Table 4.1

Frequencies and percentages of participant demographics and characteristics.

Variable	Demographic	Frequency *(n = 17)*	Percentage (%)
Relationship with child	Mother	10	58.82
	Father	4	23.53
	Parent (unspecified)	2	11.76
	Caregiver	1	5.88
Age	25-34	3	17.65
	35-44	8	47.60
	45-54	4	23.53
	55-64	2	11.76
Gender	Female	13	76.47
	Male	4	23.53
Ethnicity	White (British, English, Welsh, Scottish, Northern Irish, Irish, Irish Traveller, and other white background)	15	88.24
	Asian (Indian, Pakistani, Bangladeshi, Chinese, any other Asian background)	1	5.88
	Black (African, Caribbean or any other black background)	1	5.88

Previous mental health training	Yes	7	41.18
	• Peer support worker	• 2	• 11.76
	• Mandatory training as part of job role	• 3	• 17.65
	• Professional training adjacent to mental health coach preparation	• 1	• 5.88
	• Parent led CBT via Well-being Hub	• 2	• 11.76
	No	10	58.82

Table 4.2

Frequencies and percentages of participant's demographics and characteristics of their child.

Variable	Demographic	Frequency *(n = 17)*	Percentage (%)
Age of child (years)	6	3	17.65
	7	2	11.76
	9	5	29.41
	10	4	23.53
	11	1	5.88
	12	2	11.76
Attend school	Yes	16	94.12
	No	1	5.88
More than one physical health diagnosis	Yes	5	29.41
	No	12	70.56
Diagnosis	Coeliac disease	1	5.88
	Autoimmune urticaria	1	5.88
	Ulcerative colitis	1	5.88
	Severe allergy	2	11.76
	Crohn's disease	1	5.88
	Congenitally corrected transposition	1	5.88

	of the great arteries		5.88
	Renaud's syndrome	1	35.29
	Asthma	6	17.65
	Epilepsy	3	11.76
	Diabetes	2	5.88
	Short stature	1	
Time since diagnosis	< 1 year	4	23.53
	1-2 years	3	17.65
	2-3 years	4	23.53
	3-4 years	1	5.88
	7-8 years	2	11.76
	8-9 year	1	5.88
	9-10 years	1	5.88
	11-12 years	1	5.88
Classified as disabled	Yes	4	23.53
	No	13	76.47
Previous input from psychological services	Yes	3	17.65
	• ADHD assessment	• 1	• 5.88
	• Mental health assessment	• 1	• 5.88
	• Therapy	• 1	• 5.88

No	14	82.35

Acceptability and Feasibility Findings

Table 4.3

Means and standard deviations of structured feedback questions.

	Item	Mean	SD
Training Videos	1. The video was helpful for caregivers.	4.65	0.49
	2. The video content was applicable to me.	4.41	0.71
	3. The content was interesting.	4.41	0.80
	4. The training feels important for caregivers of children with long term health conditions.	4.59	0.62
	5. The training was appropriate for paediatric health settings.	4.35	0.93
	6. The pacing of the video was appropriate	4.47	0.87
	7. The video format was appropriate.	4.71	0.47
	8. I feel another format would have been more appropriate for the training.	2.12	1.05
	9. The length of the training was appropriate.	4.29	1.05
	10. Following the training, I felt more confident in my understanding of anxiety.	3.94	0.90
	11. Following the training, I felt more confident in supporting my child if they are anxious.	3.94	0.90
	12. Following the training, I felt more likely to seek psychological support for my child.	3.47	1.01
	13. I would recommend the training to others.	4.41	1.00
Research Process			
	1. The consent process was easy to understand.	4.82	0.39
	2. I found the questionnaires easy to complete.	4.65	0.79
	3. I understood what the questionnaires were asking me.	4.53	0.87
	4. I found it difficult to find enough time to complete the research.	1.94	0.83
	5. I enjoyed taking part in the research.	4.47	0.62

Note: SD – Standard deviation; Scale scores ranged from strongly disagree (1) to strongly agree (5).

The initial feedback questionnaire item means and standard deviations are shown in Table 4.3. Results show the training was deemed helpful, applicable and appropriate for the population, the content was interesting, and felt important. Most reported they felt more confident in their understanding of anxiety and supporting their child if they were anxious. Following the training they were also more likely to seek psychological support for their child. The majority reported they would recommend the training to others.

Research procedures were also rated positively. Participants indicated the consent process and questionnaires were easy to understand and complete. In general, participants did not find it difficult to find enough time to complete the training. Most participants agreed they enjoyed taking part in the research. This indicates acceptability and appropriateness of the research process.

Recruitment

The recruitment window spanned from September 2025 to February 2026; this was extended from the initially planned recruitment window which was due to conclude in December 2025. Seventeen participants were recruited, which is below the initial target of 30. Although all participants indicated they were happy to be contacted to complete the follow-up stage, only eight participants completed the follow-up two weeks later, showing a dropout rate of 52.94%. The online platform used to host the intervention did not allow access to survey analytic data, so it is not clear how many participants dropped out during the study prior to completion and at what stage. Recruitment difficulties suggest poor feasibility. The sample diversity was also limited due to recruitment difficulties.

Follow-up Stage Results

Table 4.4

Means and standard deviations of the follow-up structured feedback questions.

	Item	Mean	SD	%
Training Videos	1. Since completing the training, I have found the content from the training helpful when supporting my child.	3.88	1.46	
	2. Since completing the training, I have found it easy to use the content and strategies to support the child.	3.75	1.39	
	3. I have found there have been challenges to using the training to support my child.	2.13	1.13	
	4. Since completing the training, the passengers on the bus metaphor has been useful.	3.50	1.31	
	5. Since completing the training, the sky and the weather metaphor has been useful.	3.75	1.39	
	6. Since completing the training, the put your worries on a cloud exercise has been useful.	3.88	1.36	
	7. Since completing the training, the blowing bubbles exercise has been useful.	3.63	1.41	
	8. Since completing the training, the child writing a king and caring letter to themself has been useful.	3.88	1.13	
	9. Since completing the training, writing a kind and caring letter to myself has been useful.	3.00	1.20	
	10. Recommended the training to others.			75

Note: SD – Standard deviation; Scale scores ranged from strongly disagree (1) to strongly agree (5)

Table 4.4 shows the feedback questionnaire item means and standard deviations. Participants generally agreed that since completing the training they found the content helpful when supporting their child and have found it easy to apply the contents of the training. Participants typically disagreed that there had been challenges to utilising the

training, but one participant identified a challenge as difficulty remembering the different strategies.

The 'Put your worries on a cloud' and the child 'Writing a kind and caring letter to themselves' (child) exercises were reported to be the most useful strategies. Participants 'Writing a kind and caring letter to themselves' (carer) was reported to be the least useful strategy.

Qualitative Feedback

Two participants provided contradicting feedback on the length and pacing of the videos. One commented that the training was very short, whereas another commented that the pacing may be too quick for those new to the content. Of the three participants who provided feedback regarding the training format, two reported that a handout may be helpful to summarise the information when using it with the child, or as an alternative tool as some prefer reading information to hearing it. Another highlighted that the PDF was useful and may be beneficial to highlight this to participants earlier. This qualitative feedback suggests more focus should be placed on the PDF and varying written forms could be considered to meet differing learning needs.

Regarding the strategies covered in the training, one participant commented that the strategies were beneficial to those who were not sure where to start. Three participants reported finding the strategies helpful and feeling motivated to try them. When asked about challenges to applying the strategies during the follow-up, one participant commented that they had difficulty remembering the strategies. This may support other qualitative feedback surrounding alternative forms to accompany the training and more emphasis placed upon the PDF available. Two participants commented that there was "little in the training" they didn't already know, or that they were already familiar with the approaches covered. Although a

small sample, these results indicate the training may be more acceptable amongst carers with no prior training around anxiety.

Preliminary Limited Efficacy Findings

Data were screened for outliers and the assumptions for parametric analysis were not met. Normality of difference scores for all PABUA subscales were assessed using the Shapiro-Wilk test. There were no significant deviations from the norm observed (Overprotection: W = .937, p = .585; Distress: W= .842, p = .078; Approach: W = .948, p = .686). However, visual inspection of histograms indicated some skewness, and the small sample size was considered. Therefore, a non-parametric Wilcoxon signed-rank test were conducted to determine whether there was a significant difference between the pre and post scores. The significance level was set to $p < 0.05$. The means, z-values and p-values for the outcome of the pre and post PABUA measure are presented in Table 3.5.

Table 4.5

Mean scores and comparisons for carer responses on the PABUA (pre and post).

Subscale	Median Pre-Training	Median Post-Training	*Z*	*p*
Overprotection	31.50	29.50	-.424	.671
Distress	14.50	15.00	-.575	.565
Approach	6.00	10.00	-2.530	.011

Comparison of Overprotection scores pre and post training indicate scores did not significantly change (Z = -.424, p = .671). Similarly, there was no significant difference in the Distress subscale scores (Z = -.575, p = .565). The Approach subscale scores did show a significant increase between pre and post training (Z = -2.53, p = .011).

Discussion

The present study sought to evaluate the feasibility and acceptability of a new training package designed for carers of children with a LTHC who also experience anxiety. Results suggest the training package and research procedures were acceptable amongst the small participant pool. However, the overall feasibility is limited by recruitment and retention difficulties which requires consideration.

Feasibility and Acceptability

The training was generally considered acceptable by participants, with participants highlighting it was applicable, enjoyable, and beneficial to the whole family. Although comparable trainings are limited, findings are consistent with existing research on parent-led CBT, where parents reported feeling empowered in supporting their child with anxiety (Creswell et al., 2023). Given the early onset of anxiety disorders in children (Solmi et al., 2022), high acceptability among caregivers is important. Contributions to early interventions are key given how symptoms often persist and worsen over time (Fisak et al., 2023).

Follow-up data indicated a slight reduction in acceptability, with lower mean scores and greater variability. This may suggest the acceptability of the training decreases when participants begin to apply the strategies in practice, perhaps indicating the research process was perceived as more acceptable than the implementation of the strategies. These results should be interpreted cautiously given the small samples. However, this pattern is consistent with other feasibility studies reporting a decline in engagement over time. For example, a review reported retention rates as low as 16% in youth mental health intervention studies (Potts et al., 2025). This perhaps reflects challenges in maintaining engagement and acceptability of real-world application.

Some qualitative feedback suggested the training concepts were limited and did not introduce new approaches which participants were not already familiar with. This feedback

was provided by carers who had already completed mental health training and whose children had already received psychological support. This may indicate that the training is more acceptable and beneficial among carers with little or no prior experience. This highlights the importance of considering participants' baseline knowledge when designing interventions. There is potential need for tailored or stepped training to adapt to the caregiver's prior knowledge and experience. Consideration should be given to targeting this training to those seeking introductory level support for anxiety.

Qualitative feedback also highlighted additional supporting materials may be beneficial. This may reflect the needs to accommodate to participants' differing learning needs, as some may require supplementary written or visual materials to consolidate their understanding. In line with previous research, the videos incorporated a narrative commentary, optional subtitles and visual aids which included texts and animations (Nicola, 2023). Further development to the additional materials could enhance the acceptability and effectiveness of the training for differing learning styles.

Despite numerous recruitment avenues being utilised, recruitment and retention rates were low. These difficulties are widely reported in paediatric research (Bencheva et al., 2024; Canter et al., 2020; Hudson et al., 2017; Van Driessche et al., 2023). Canter et al (2020) highlighted the importance of flexibility and ease of access and use of intervention, which this study tried to allow for. They also outlined the importance of working with parental stakeholders at all phases of study design and implementation. Although PPI were consulted in the study design process, they were not consulted at implementation. Further collaboration with PPI at this stage could have helped to identify and address possible barriers to recruitment. Of note, a review conducted by Wakefield et al. (2017) amongst oncology paediatric studies reported recruitment rates can be improved if parents are approached during treatment or at the time of diagnosis. The eligibility criteria for this study prevented

caregivers taking part if their child had received a diagnosis in the past month, which may have impacted recruitment rates. However, the review did involve oncology departments which were not included in this study and the severity of the condition may impact this.

Studies have reported that in-person, face-to-face recruitment is most efficient (Hung et al., 2024), hence the attendance of clinics by HLW, but this did not appear to increase recruitment rates. Van Driessche et al. (2023) recommended closely involving recruitment sites before the start of the study, which this study did for three of the four research sites. They also recommended offering monetary incentives. Following initial recruitment difficulties, ethical amendments were made to include this as part of the recruitment strategy. Furthermore, they suggest exploring other recruitment sources such as social media, making a video to advertise the study and using email lists. All these strategies were employed, as well as reaching out to relevant charities.

Research has considered why recruitment and retention rates may be particularly challenging amongst this population. Factors which are thought to be influential include the well-being of caregivers. Thomas et al. (2024) reported parents in their study exhibited mild levels of distress, with 26-40% experiencing moderate or higher levels of depression, anxiety or stress. Hudson et al. (2017) reported the often-unpredictable course of the child's illness may influence caregiver recruitment, as well as the perceived burden of participating. Hudson et al. (2017) was however conducted amongst children with life-limiting or life-limiting conditions and therefore results should be applied cautiously.

The sample characteristics suggested that both male and female participants of a mixture of ages could be recruited for the training. A large proportion of the sample were white ethnicity and therefore results cannot be widely generalised. This is in line with other

research which has identified barriers to recruiting parents from ethnic minority groups (Bencheva et al., 2024).

Preliminary Limited Efficacy Findings

Preliminary findings suggest the training package shows some promise. No significant differences were observed between pre and post Overreaction and Distress scores (Overprotection: W = .937, p = .585; Distress: W= .842, p = .078), whereas a significant difference in Approach scores was reported (W = .948, p = .686). This suggests the training did not impact carers' beliefs around protecting their child from anxiety or their emotional discomfort when their child is anxious, but did influence their beliefs around encouraging their child to face anxiety-provoking situations. A possible explanation for this may be the brief nature of the training whereby approach-based strategies may be more amenable to change, whereas overprotection beliefs and distress may require more intensive interventions to observe change. Results should be interpreted cautiously due to the small sample size, resulting in low statistical power.

Strengths and Limitations

This study differs from other training available to caregivers which targets supporting anxiety of children with a LTHC. To our knowledge it is the first single-session, online training based on ACT principles. This feasibility study enabled assessment of the research processes and consideration of refinements needed prior to conducting more thorough testing (Bowen et al., 2009; Orsmond & Cohn, 2015).

Utilising PPI in the development of the study is a key strength and in line with expectations of the NHS Health Research Authority (2025). The use of PPI likely improved the quality and consequential impact on findings (Crocker et al., 2017; Evans et al., 2015) by

providing fresh insights, improving understanding of the population and highlighting potential barriers to research (Brett et al., 2014).

Online delivery addresses a priority area outlined by NICE guidelines to enable digital care within children's mental health services (NICE, 2023). The online training also limited researcher burden in terms of delivery. However, the online platform did not allow exploration of survey analysis. This meant it was not possible to assess drop-out rates at different stages, which may have improved ability to identify barriers to inform future research.

A key limitation of this study were the significant recruitment and retention difficulties. The small sample size reduces the feedback provided on the training yet does provide reflections on the feasibility of the training. Although not a key focus of this study, the small sample size also resulted in poor statistical power, thus reducing the reliability to detect a real difference (Shreffler & Huechker, 2020). A possible explanation for the recruitment difficulties may be because of the increased stress and anxiety caregivers may already be facing. The training added to their load and was designed to equip them to support their child, rather than provide them with support directly. The training may have been more appealing to carers if the training was designed to support them, in order to then enable them to support their child.

The limited sample also had a lack of diversity in terms of gender and ethnicity. Fathers have been found to be significantly underrepresented in research (Cabrera et al., 2018). Father-focused ads are deemed essential in father recruitment, as opposed to parent-focused ads (Yaremych & Persky, 2024). As well as gender differences, a lack of diversity of ethnicity may also constrain the generalisability of the results. Difficulty in recruitment of ethnic minority participants is widely reported, which creates challenges as results cannot be

generalised across ethnicities (Brown et al., 2014; Pardhan et al., 2025; Waheed et al., 2015). Future efforts should be made to ensure the voices of underreported groups are heard, addressing barriers to ensure greater understanding of feasibility and acceptability across a range of backgrounds.

It is important to note the limited evidence which underpins the training. Although ACT has an expanding evidence base amongst a range of psychological contexts (REF), there is currently limited evidence for its use as to support anxiety in children with LTHC, via parent-led interventions. Existing ACT research predominantly focusing on therapist-delivered interventions. The training therefore involved drawing upon ACT principles and adapting them for the specific population, rather than replicating an established evidence-based protocol and amending it to meet the needs of the training. Furthermore, evidence for digitally delivered ACT psychoeducation remains limited. Therefore, the training expands beyond the existing evidence base. Although this is acceptable for a feasibility study, the extent to which the training can be considered evidence-based is limited due to the current gaps in research.

Future Research

As the training shows promise, further research is warranted. This feasibility study has allowed for understanding of important parameters for the design of the main study. A pilot RCT would act as a smaller version of the full RCT. Pilot studies have been found to assess more study elements than feasibility studies and test whether components of the main study can work together (Blatch-Jones et al., 2018). A pilot RCT could address the discussed limitations of this study.

A longer follow-up period was considered for this study, but due to timeframe restrictions it was not possible. A longer follow-up period to understand the long-term

impacts of the training should be incorporated. All data should be collected using an alternative online platform to allow for in-depth survey analytics to increase understanding of dropout during different stages of the study. The further use of PPI could improve understanding of barriers in recruitment and retention and attempt to address the sampling gaps outlined.

Conclusion

This study explored the feasibility and acceptability of a novel, ACT-based psychoeducation training for carers of children with a LTHC and anxiety. Results indicate the training was deemed acceptable by the small number of carers who participated, and shows promise in changing parents beliefs in how they would approach and respond to their child's anxiety. However, there were significant recruitment and retention difficulties which reduces the generalisability and overall feasibility of the training. Refinement is needed to evaluate the training amongst a larger sample within a pilot RCT to continue to assess the feasibility of the training and draw conclusions around the effectiveness of the training.

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Chapter Five: Discussion and Critical Evaluation

The research discussed in this thesis aimed to examine the parental well-being support provided during paediatric admissions. This thesis also examined the feasibility, acceptability, and limited efficacy of a newly developed, online training based on ACT principles, for carers of children with a long-term health condition (LTHC) who experience anxiety. This chapter provides an overview of the findings of each study, as well as a discussion around the strengths, limitations, and recommendations for future research. The chapter also includes discussions on the implications of the research.

Summary of Findings

Systematic Review

A previous review identified parental support interventions to be associated with improvement in emotional outcomes (Doupnik et al., 2017). However, the review included studies as far back as 1988. Health interventions have progressed significantly and therefore parental experiences are likely to differ greatly. This thesis is an updated analysis of the effectiveness of interventions offered for parents during paediatric inpatient stays. The review did not include studies in the neonatal setting as it was felt carers circumstances would significantly differ to other paediatric ward settings. Four electronic databases were systematically searched (CINAHL, Medline, PsycInfo, and Scopus) and ten studies met the inclusion criteria. Three key intervention areas were identified: Psychological/Skills-based, Mind-body, and Entertainment/ Player-based interventions. Overall, interventions were generally found to be effective in improving parental well-being. Of note, the quality of evidence varied and was impacted by small sample sizes, short follow-up periods and predominantly female participants.

Empirical Study

Children with LTHCs are at an increased risk of mental health difficulties (Bennet et al., 2015; NICE, 2019; NICE; 2022), in particular anxiety (Togethoff et al., 2015). There is currently a gap in the research relating to single-session training available to this population which meet their unique needs. In an attempt to address part of this need, a training package focused on Acceptance and Commitment Therapy (ACT) principles was developed and its feasibility evaluated. A digital approach for delivery was chosen in line with NHS guidelines (NICE, 2023). Results indicated that the training was generally acceptable and received positive feedback. However, there were significant challenges in relation to recruitment and retention rates, raising concerns regarding the feasibility of the training. Refinement is needed prior to conducting a pilot randomised controlled trial (RCT).

Strengths, Limitations and Future Research

This portfolio is of clinical relevance, given its attempt to address a genuine service gap. There appears to be a lack of structured support available for carers during paediatric hospitalisations. The review attempts to understand the effectiveness of different interventions which could then guide future decisions around support to be offered during the acutely stressful period. Similarly, the empirical project aligns with NHS priorities in addressing the current minimal integration of physical and mental health services (NICE, 2019). It also utilises a digital-based approach which is outlined in the NICE guidelines (NICE, 2023).

Unlike the other review (Doupnik et al., 2017), the decision was made to not include neonatal wards in the review. This narrowed the papers included in the review. The decision was made as it was felt the experiences and needs of parents in these wards were likely to significantly differ to parents of older children in paediatric wards. This therefore strengthens conclusions made around this specific population group.

A strength of the review was its methodological rigour. The review was registered on PROSPERO prior to the review being conducted and it aligned with PRISMA guidance. The use of a second screener and MMAT appraisal tool improved the reliability of the review. Use of a narrative synthesis was appropriate as the topic included a large heterogeneity of interventions and outcome measures and the narrative synthesis allowed for comparisons to be made (Popay et al., 2006).

Although conducting a narrative synthesis was appropriate given the heterogeneity of studies, the lack of meta-analysis meant no pooled effect sizes were calculated (Giannoudis & Papakostidis, 2023). In comparison, narrative syntheses rely on descriptive summaries (Popay et al., 2006) and are therefore more subjective. The review also included pilot studies which further reduces the evidence strength and statistical power of the studies is impacted, consequently decreasing the ability to detect real changes (Shreffler & Huecher, 2020).

When considering the empirical study, it has relevance in the real-world context. As far as we are aware, it is the first single-session, online training based on ACT principles for this population. The use of a feasibility study was therefore appropriate to understand acceptability and feasibility elements, and for identifying barriers to implementation, prior to conducting a RCT (Blatch-Jones et al., 2018). ACT is an emerging treatment in supporting the well-being children (Konstantinou et al., 2023; Parmar et al., 2021) but is relatively under-researched. A carer targeted approach is considered a potential cost-effective solution to improving early access to support (Creswell et al., 2023; Creswell et al., 2024) and is in line with digitally enabled child's mental health care priority (NICE, 2023).

However, the digital approach may have privileged carers who are digitally confident and have access to an electronic device to complete the training, thus not meeting the needs of the wider population. As this was an initial feasibility study, it was not possible to make

cultural adaptations to the training package. This means the needs of minority groups may not have been met, which may reflect barriers to recruiting those from ethnic minority backgrounds (Brown et al., 2014). Future research should therefore consider how carers who have less access to digital devices can access the training, such as providing devices during medical appointments for carers to complete the training at the time of the appointment, and for cultural adaptations to be made to the training in order to make the training more accessible.

Research has highlighted that children with LTHCs are at an increased risk of developing mental health difficulties (Bennet et al., 2015; NICE, 2019; NICE, 2022). Although the training is designed to be psychoeducational rather than a formal intervention, the single session is unlikely to offer adequate support to meet the needs of those experiencing greater distress. However, the training does outline when the strategies discussed in the training are most appropriate to use and signposts participants to other helpful resources and helplines if needed. Furthermore, the inclusion criteria did not allow for carers of children who had received their diagnosis in the past month, as it was felt these carers could be experiencing acute stress at the time which this training would not offer suitable support for. Feedback from the training suggests it may be most suitable to carers who had not received any prior support and therefore may be relevant for carers of newly diagnosed children. Future research should consider the inclusion of parents of newly diagnosed children to examine the acceptability and feasibility of the training amongst this unique population.

Overall, this thesis attempts to address a specific population with a clinical need; parents of children during hospitalisations and children with LTHCs. The portfolio focuses on real-world challenges faced by this population. Research has established that parents can

experience acute distress during hospitalisations, yet limited interventions appear available to them during this time. Furthermore, both studies consider the challenges and integration of physical and mental healthcare (NICE, 2019), working towards a holistic approach within paediatric care.

A key limitation of the portfolio to consider is the poor generalisability of the results. All studies included in the review were conducted in Asia or the USA, and the empirical study did not reach the recruitment criteria of 30 participants (n = 17). The limited samples raise questions regarding how well the samples reflect real service demographics and the strength in which results can be generalised. Barriers to recruitment and retention should be explored with Participant and Public Involvement (PPI) prior to conducting a RCT. Adequately powered samples should also be a focus for future research. If wishing to generalise results of the review to models such as the NHS, future reviews should focus on publicly funded healthcare systems as funding is important to consider in terms of accessibility of the interventions. Furthermore, both papers had predominately female participants. This limits the applicability of results to males and other care givers. This is a common issue within research (Harniess et al., 2023), and future research should consider the use of male and/or father specific recruitment strategies to address this limitation.

This thesis did not account for long-term impacts of the interventions or training. The review included short follow-up periods of up to three months, with the most studies not analysing impacts at a follow-up at all (n = 6), and the empirical paper used a brief two-week follow up period. Short follow-up periods do not allow for examination of whether the potential benefits are sustained. Future research should include longer follow-up periods to understand whether observed effects are maintained.

A limitation across both papers is the use of self-report measures to assess outcomes. Although their use was practical and appropriate (Pavlov et al., 2021), they are vulnerable to bias. For example, participants may underreport distress due desire to appear to be managing with their child's health condition and/or hospitalisation, or due to social desirability (Latkin et al., 2017). Results may therefore reflect response-bias rather than psychological changes. Self-report measures only capture perceived change, as opposed to objective behavioural outcomes, which limits the conclusions drawn for real world implications. Overall, the reliance on self-report measure reduces the value of implications which can be made from the portfolio. Research should consider clinician-rated or observational data to enhance the strength of inferences made.

Clinical and Theoretical Implications

This thesis highlights the important role carers play in their child's psychological well-being. There are established links between carer and child well-being (Michals & Reeder, 2023). The review examined how interventions can improve parental well-being during paediatric admissions, whereas the empirical study aimed to equip carers with ACT-based strategies to support their child's anxiety in relation to their LTHC. Combined, the portfolio suggests a family approach to child well-being within paediatric healthcare is important, supporting the integration of carer interventions within paediatric pathways. Services should not offer solely interventions directed at children; services should also offer interventions and psychoeducation training for carers, to support their well-being and consequently the child's well-being (Michals & Reeder, 2023), as well as to equip carers to support with the child's anxiety management. Equipping carers at home may reduce the intensity of resources required to support the child. The integration of carer targeted support may be particularly appropriate in paediatric settings whereby children may already feel overwhelmed with

medical appointments, causing them to miss school and other activities (Creswell & Willetts, 2019).

The portfolio further supports the integration of physical and psychological healthcare. Despite the distress which can be caused by paediatric admissions (Alzawad et al., 2021; Franck et al., 2015; Oxley, 2015; Tsironi & Koulierakis., 2018; Zdun-Ryzewska et al., 2021), the small number of studies included in the review highlights the lack of interventions available to support parents during this time, particularly outside of the USA and Asia. Incorporating standardised screening of parental well-being during admission could help detect early impacts on well-being, shaping the support which is offered to carers, potentially reducing the long-term impact traumas from hospitalisation periods can have.

Given the high-demand and limited resources commonly faced in current NHS services, there is scope for non-labour intensive and scalable interventions. Online delivery allows for flexibility around carer responsibilities, as well work and attending medical appointments. However, the significant recruitment and retention difficulties faced in the empirical study indicate that interventions and training require integration into care pathways, as well as buy-in and collaboration amongst healthcare teams to improve engagement.

A further clinical implication to consider is around preventative care. Both studies examined interventions when the carer or child are experiencing distress. If psychoeducation and training were offered prior to escalation in symptoms, this may help to prevent an increase in severity. This shift would reflect the focus on prevention and early intervention (Royal College of Paediatrics and Child Health, 2018).

In terms of theoretical implications, the empirical paper supports the use of ACT based approaches in paediatric settings. ACT aims to enhance well-being by reducing the impact of upsetting thoughts and feelings via acceptance (Harris, 2019). This is crucial within

a health setting where stressors are typically ongoing yet out of the control of the individual. Despite the advantages of ACT, it is a less widely established approach. Although further research is required with fully powered samples, this research can contribute to the growing evidence base of ACT approaches amongst this population.

The findings of this portfolio support the use of family focused approaches to anxiety and well-being, as opposed to individualised concepts. A focus should be placed on carer processes. The paper emphasises the influential role of the caregiver in the impact of their well-being on the child, as well as how they respond to their child's anxiety. This aligns with the biopsychosocial model (Julian & Lumeng, 2022) and encourages the consideration of systemic thinking within paediatric psychology.

Conclusions

Taken together, this portfolio highlights the need for effective interventions to support the well-being of carers during paediatric admissions, as well as the value of training aimed at carers to support with their child's anxiety. Carers can experience intense distress during admissions, yet little research has examined what support should be made available. The review highlighted that generally interventions were found to be effective, but no studies were included which used an NHS type model. The thesis also contributes to the development of an online, single-session, ACT based training package for carers of children with a LTHC. The training showed promised but faced significant recruitment and retention difficulties. Overall, the portfolio is of clinical relevance. However, the poor generalisability of the results and lack of understanding surrounding the long-term impacts of the interventions and training should be addressed. This thesis highlights the role of parents within paediatric psychology and supports the further integration of physical and psychological care.

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Appendix A

Author Guidelines for Chosen Journal: Journal of Pediatric Psychology

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General Information

The *Journal of Pediatric Psychology* is an official publication of the Society of Pediatric Psychology, Division 54 of the American Psychological Association, whose mission is to promote the health and psychological well-being of children, youth and their families through science and an evidence-based approach to practice, education, training, advocacy, and consultation. As such, the journal publishes articles related to theory, research, and professional practice in pediatric psychology.

We would like to inform our authors that we now detect plagiarism easily. *JPP* employs the CrossCheck plagiarism screening system. By submitting your manuscript to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

Journal of Pediatric Psychology will not consider papers that have been accepted for publication or published elsewhere. Copies of existing manuscripts with potentially overlapping or duplicative material should be submitted together with the manuscript, so that the Editors can judge suitability for publication. The Editors reserve the right to reject a paper on ethical grounds.

Manuscript Preparation Instructions

The *Journal of the Pediatric Psychology* is an online only journal.

Cover Letter

The cover letter is an essential document and must be included with the submission of all new manuscript submissions and revisions. The cover letter should be addressed to the journal editor and include the following:

1. Manuscript title
2. Assurance that all authors agree with the content of the manuscript and order of authorship
3. Assurance the publication is not currently submitted to another journal
4. Information about duplicate and redundant publications
5. Notice of any conflicts of interest
6. Consideration for a special issue/series or if this is an invited commentary
7. Corresponding author contact information

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Article Types

Original research

Review articles

Invited commentaries (e.g., Student Journal Club Commentaries)

The *Journal of Pediatric Psychology* no longer accepts brief reports but will accept manuscripts that are shorter in length. Case studies and narrative reports of special cases that are more descriptive will not be considered for review.

Original Research

Original Research is the most common type of journal manuscript used to publish full reports of data from original research. Authors are also encouraged to visit the Equator Network for additional information on transparent reporting of all manuscript types.

See the following articles for detailed guidance concerning preparation of manuscripts:

- Editorial: Thoughts in Improving the Quality of Manuscripts Submitted to the *Journal of Pediatric Psychology*: How to Write a Convincing Introduction;
- Editorial: How to Report Methods in the *Journal of Pediatric Psychology*;
- Editorial: How to Write an Effective Results and Discussion Section for the *Journal of Pediatric Psychology*.

1. *Cohort and observational studies*. We welcome submission of the STROBE checklist; however, these are not required.
2. *Clinical Trials*

    a. *Randomized controlled trials*: *JPP* is committed to enhancing the transparent reporting of all intervention studies. Please use the CONSORT checklist.

    i. All Randomized Controlled Trials (RCTs) must be registered at or before the time of first patient enrollment in any primary registry of the WHO International Clinical Trials Registry Platform (ICTRP) or in ClinicalTrials.gov. Provide the registry name and registry number in the cover letter and methods section.

    ii. If you are submitting a secondary data analysis from an RCT, please clearly indicate that it is a secondary data analysis in your manuscript and refer readers to the primary publication of outcomes. Consult with the editorial office if there are questions about reporting.

    b. *Pilot and feasibility trials*: Feasibility studies investigate whether something can be done and if/how it should proceed with further testing, while pilot studies test some aspect(s) of a future trial on a smaller scale. For pilot feasibility trials, we encourage authors to refer to our 2021 Editorial (Hilliard et al. 2021), which provides guidance on the reporting of pilot feasibility trials. Please use the CONSORT extension checklist.

    c. *Non-randomized trials*. A non-randomized clinical trial involves participants who are not assigned to different treatment groups by chance.
3. *Single Subject Studies*: As a journal that encourages submission of intervention studies, the Journal does accept, and encourages submission of, well-conducted single subject studies (N-of-1 designs). It is important to note that rigorous single subject designs are considered logical equivalents of Randomized Controlled Trials and include control conditions that support conclusions of causality. Previously published examples can be found in this journal including: Bernard, Cohen, & Moffett (2009). Authors considering submissions of case reports adopting N-of-1 methodology should consult the following sources within this journal: Cohen, Feinstein, Masuda, & Vowles (2014); Cushing, Walters, & Hoffman (2014); Rapoff & Stark (2008).

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Review articles

1. *Topical Reviews*: Topical reviews summarize contemporary findings, suggest new conceptual models, or highlight noteworthy or controversial issues in pediatric psychology. Topical reviews are not intended to provide short data summaries or syntheses. Rather they are intended to foster new ways of thinking about a topic area and provide a direction for future research or practice.
2. *Systematic reviews and Meta-Analyses*: Systematic reviews provide a research synthesis of a body of literature using an explicit methodology to minimize bias and ensure conclusions are made from reliable findings. Authors of systematic reviews that do not include a meta-analysis must provide a clear justification in the manuscript explaining why such an analysis is not included for all or relevant portions of the report. Please note the PRISMA should be submitted with your manuscript.
3. *Scoping Reviews*: Scoping reviews determine the scope of a body of literature on a particular topic and identify the volume of the literature (i.e., available studies), and provide an overview of its focus. These are particularly helpful for emerging evidence. Please note the PRISMA-ScR should be submitted with your manuscript.

Please consult this editorial (New Guidelines for Publishing Review Articles in *JPP*) which further describes guidelines for review articles.

Invited commentaries

Commentaries are invited on all topics of interest in pediatric psychology, and the page length and scope should be discussed with the Editor. Un-invited commentaries will not be considered.

Reporting Guidelines

JPP requires that the relevant reporting guidelines be used for the following studies:

- Randomized trials: CONSORT
- Pilot and feasibility trials: CONSORT extension
- Non-randomized trials: TREND
- Scoping reviews: PRISMA-ScR
- Systematic reviews: PRISMA

Editable checklists for reporting guidelines may be found on the EQUATOR network site.

All intervention studies (RCTs and non-randomized trials) will undergo an additional review for transparent reporting conducted by the *JPP* Assistant Editor for Transparent Reporting. Review comments will be provided on the corresponding checklist. Authors will be required to address any identified reporting issues prior to publication.

Please clearly indicate the page numbers where each checklist item is reported in the manuscript. Please upload this checklist as supplementary material when you submit your manuscript for consideration. If a component of a checklist was not included in the manuscript, an explanation of the rationale for exclusion should be provided. Adherence to these reporting requirements provides standardization, ensures that important information has been included, and facilitates the peer review process.

We publish the final version of all required checklists as supplementary material. Thus, a final version of your CONSORT/TREND/PRISMA checklist will be requested as supplementary material prior to final acceptance of your manuscript. Please note the checklist should be reference in the methods section of your manuscript.

Organizing and Preparing Manuscripts

The *Journal of Pediatric Psychology* offers authors high-quality online publication. To ensure rapid and efficient publication, please follow the instructions below.

Type of Manuscript	Length Limit (Text, exclusive of title page, abstract, figures/tables, and references)	Total Number Figures/Tables	Maximum Number of references
Original	5,000 words (20 pages)	5	50
Reviews:			
• Topical	2,000 words	2	30
• Systematic/Scoping	6,250 words (25 pages)	8	Unlimited
Commentaries			
• Student	1,000 words	0	12
• General (Invited)	1,500 words	0	12

General Formatting

1. *File format*. Please save the main manuscript file as a .doc format.
2. *Font size and type*. Please use a standard font that is compatible with Windows, such as Times New Roman or Arial. Font size should be 12 pt.
3. *Double-spacing*. Submissions should be double-spaced throughout, with margins of at least 1 inch and font size of 12 points (or 26 lines per page, 12-15 characters per inch).
4. *Naming Files*. When naming your files, please use simple file names and avoid special characters and spaces. If you are a Macintosh user you must type the three-letter extension at the end of the file name you choose (e.g. .doc, .rtf, .tif).

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Manuscript Formatting

The American Psychological Association Publication Manual (7th edition) should be used to guide manuscript formatting, with the exception of the title page and abstract as noted below. Authors MUST format their references per the American Psychological Association Publication Manual (7th edition). Failure to do so will cause their manuscript to be unsubmitted until this is corrected.

Title Page

In addition to the APA Manual, the academic degrees of authors should be placed on the title page following their names.

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WELL-BEING IN PAEDIATRIC CARE: SUPPORT FOR CHILDREN AND CARERS

Abstract

A structured double-spaced abstract of not more than 250 words should be included. The abstract should include the following parts:

a. Objective (brief statement of the purpose of the study)

b. Methods (summary of the participants, design, measures, procedure)

c. Results (the primary findings of this work)

d. Conclusions (statement of implications of these data)

Body of the Manuscript

a. *Introduction*

b. *Methods* - Informed consent and ethical treatment of study participants: Authors should indicate in the Method section of relevant manuscripts how informed consent was obtained and report the approval of the study by the appropriate Institutional Review Board(s).

c. *Results*

d. *Discussion* - Clinical relevance of the research should be incorporated into the manuscripts. There is no special section on clinical implications, but authors should integrate implications for practice, as appropriate, into papers.

Acknowledgements

Add appropriate acknowledgements, including information on the funding sources as noted below:

Funding

Details of all funding sources for the work in question should be given in a separate section entitled "Funding." The following rules should be followed:

- The sentence should begin: "This work was supported by . . ."
- The full official funding agency name should be given, i.e. "the National Cancer Institute at the National Institutes of Health" or simply "National Institutes of Health," not "NCI" or "NCI at NIH" (full RIN-approved list of UK funding agencies)
- Grant numbers should be complete and accurate and provided in parentheses as follows: "(grant number xxxx)."Multiple grant numbers should be separated by a comma as follows: "(grant numbers xxxx, yyyy)"
- Agencies should be separated by a semi-colon (plus 'and' before the last funding agency)
- Where individuals need to be specified for certain sources of funding the following text should be added after the relevant agency or grant number "to [author initials]."

Oxford Journals will deposit all NIH-funded articles in PubMed Central. See the Complying with funder policies page for details. Authors must ensure that manuscripts are clearly indicated as NIH-funded using the guidelines above.

Tables and Figures

Tables

Tables should be included as separate pages using acceptable formats (e.g., .doc files).

Figures

Figure resolution should be no less than 300 dpi for halftone color (photo) images, 600 dpi for combination halftones, and 1200 dpi for line art. Most standard figure formats are acceptable, such as .jpg, .gif, .tif, or .eps format. Please follow this link for useful information on preparing your figures for publication.

Figure accessibility and alt text

When submitting your manuscript, we require you to provide alt text (alternative text) descriptions for all images, figures, illustrations, and photographs included in the main article.

Please consider accessibility when designing each figure, so that all images can be easily understood by visually impaired readers. OUP provides detailed guidance on figure accessibility, including contrast, text accessibility and alt text. It is also best practice for the information or data represented in the image to be fully described by the caption and/or surrounding text.

Please include each alt text description in your main manuscript file, directly under the figure legend for the relevant figure, preceded by 'Alt text:'.

Detailed guidance on how to draft and submit alt text.

Including alt text in your manuscript helps make your work more accessible to all readers. Good alt text ensures that individuals with visual impairments or those using screen readers can understand the content and context of your figures. The aim of alt text is to give concise and informative descriptions of your figures so all readers can understand and benefit from the visuals in your manuscript. Including alt text demonstrates a commitment to accessibility and enhances the overall impact and reach of your work.

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Diversity, Equity, and Inclusion Considerations

The Journal of Pediatric Psychology (JPP) and Clinical Practice in Pediatric Psychology (CPPP) both identified enhancing reporting practices for diversity, equity, and inclusion (DEI) in pediatric psychology as a top priority (Duncan, 2023; Modi, 2023). Building upon a guidance for reporting on race and ethnicity in JPP articles (Palermo et al., 2021), we recently published an editorial focused on recommendations on inclusive language and transparent reporting relating to diversity dimensions. Our current efforts strive to address a broader set of diversity dimensions, using the ADDRESSING Framework (Hays, 2016) as guidance, with the goal of enhancing the rigor and inclusiveness of pediatric psychology science. Several important existing checklists and guidelines on inclusive language and transparent reporting relating to DEI exist (American Psychological Association, 2023b; Buchanan et al., 2021; Letzen et al., 2022; Matsui et al., 2020; Miller et al., 2019; Williford, Sweenie, et al., 2023). However, no comprehensive guidelines were available that captured the specific context of pediatric psychology (e.g., developmental/family considerations), while also being broadly applicable across the field (e.g., not focused on a specific condition or symptom).

Acknowledging that this is a rapidly evolving area of science, the updated guidelines represent a living document that will exist online within the Instructions for Authors of both journals, which will be updated yearly. Please find the first iteration as a guidance to implement optimal DEI reporting practices (See Table 1), as well as examples of how these apply to the manuscript types published in our journals (see Table 2).

Table 1. Diversity Dimensions Checklist

Table 2. Application of Diversity Dimensions Checklist in Study Design and Manuscript Preparation

Please see full editorial.

Research Data Policy Statement

Where ethically feasible, *JPP* strongly encourages authors to make all data and software code on which the conclusions of the paper rely available to readers. Authors are required to include a data availability statement in their paper. When data and software underlying the research article are available in an online source, authors should include a full citation in their reference list. For details of the minimum information to be included in data and software citations see the OUP guidance on citing research data and software.

Whenever possible, data should be presented in the main manuscript or additional supporting files or deposited in a public repository. Visit OUP's Research data page for information on general repositories for all data types, and resources for selecting repositories by subject area.

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OUP is a signatory to the Center for Open Science's Transparency and Openness Promotion (TOP) Guidelines which served as a framework for our overall data policy approach, as well as the policies implemented by individual titles. OUP also supports the Joint Declaration of Data Citation Principles and the recommendations of the FORCE11 Software Citation Implementation Group, which is reflected in our data and software citation practices.

The *Journal of Pediatric Psychology* adheres to LEVEL 2 reporting of data availability and is defined as follows: Level 2: The journal encourages all authors, where ethically possible, to publicly release all data underlying any published paper. Authors must include a Data Availability Statement in their published article.

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Data Availability Statements

The inclusion of a data availability statement is a requirement for papers published in *JPP*. Data availability statements provide a standardized format for readers to understand the availability of original and third-party data underlying the research results described in the paper. The statement should describe and provide means of access, where possible, by linking to the data or providing the required unique identifier.

Please use one of the following data availability statements within the Methods section of your manuscript.

Availability of data	Sample statement
Data are available in a repository and can be accessed via a DOI link.	*The data underlying this article are available in* [repository name, e.g. the Dryad Digital Repository], at https://dx.doi.org/[doi]
Data are available in a repository and can be accessed using a unique identifier other than a DOI.	*The data underlying this article are available in* [repository name, e.g. the GenBank Nucleotide Database] at [URL], and can be accessed with [unique identifier, e.g. accession number, deposition number].
All data are incorporated into the article and its online supplementary material.	*The data underlying this article are available in the article and in its online supplementary material.*
Data cannot be shared for ethical/privacy reasons.	*The data underlying this article cannot be shared publicly due to* [describe why the data cannot be shared, e.g. for the privacy of individuals that participated in the study]. *The data will be shared on reasonable request to the corresponding author.*
Data available on request.	Data available on request.
Data is owned by a third party.	*The data underlying this article were provided by* [third party] *under licence / by permission. Data will be shared on request to the corresponding author with permission of* [third party].
Data generated at a large-scale facility.	*The data underlying this article were accessed from* [name of large-scale facility, include URL and unique identifier for dataset, if available]. *The derived data generated in this research will be shared on reasonable request to the corresponding author.*
Data derived from a source in the public domain.	*The data underlying this article are available in* [repository name, e.g. Zenodo], at https://dx.doi.org/[doi]. *The datasets were derived from sources in the public domain:* [list sources, including URLs].
Data are subject to an embargo.	*The data underlying this article are subject to an embargo of* [period of embargo, e.g. 12 months from the publication date of the article]. *Once the embargo expires the data will be available* [give details of availability, e.g. in a repository plus embargoed link; upon reasonable request, etc.].
There are no new data associated with this article.	*No new data were generated or analyzed in support of this research.*

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CRediT

The Journal uses the contributor roles taxonomy (CRediT), which allows authors to describe the contributor roles in a standardized, transparent, and accurate way. Authors should choose from the contributor roles outlined on the CRediT website and supply this information upon submission.

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Steps	Options
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Manuscript Type	Original Research, Commentary, Systematic Review, Scoping Review, Topical Review, Editorial, Letter to the Editor, Introduction to Special Issue
Title	Please provide a title
Abstract	250 word maximum and double-spaced as noted above
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Confirmation statement	Please check the box that notes single blind review process and compliance with information in the title page
Step 3	
Key words	Choose at least 4 key words

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Confirmation statement	Please check the box that User Account Details have been updated to ensure timely communication.
Step 5	
Funding	Please note whether there was funding for the submission, including funder, grant/award number
Conflict of Interest	Provide appropriate details
Resubmission (if applicable)	Note whether this is a resubmission and provide prior manuscript number
Special/Themed Issue or Section	Please endorse this statement and provide information here and in the cover letter if this manuscript should be considered for a special series, special section, or special issue
Word count	Please provide a count of the complete text, including abstract, text, references, and figure legends
Number of Tables	Please add the number of tables
Number of Figures	Please add the number of figures
Journal related conflicts	Please note if you serve as an Editor or Associate Editor for the *Journal of Pediatric Psychology*
Confirmation Statement	• APA ethical guidelines adherence • Editorial Policy and Authors Checklist
Research Data Availability Statement	Please ensure you check this box and add a statement in your manuscript and highlight the page number it is located. All manuscripts are required to have a statement as noted in the Data Availability Statements.
Intervention/Treatment Study Information (if applicable)	Please check the appropriate box on whether your study is an intervention/treatment study. If yes, please provide information on whether the trial is randomized and whether the trial has been registered. Please upload the appropriate checklist.
Confirmation Statement	Please check the statement related to retention of the corresponding author's email address for communication purposes.
Step 6	
Review and Submit	Review all the proofs and once finalized, submit your manuscript.

Additional Guidance

The following links provide additional guidance for authors and reviewers:

- Conflicts of Interest
- NIH Policy
- Committee on Publication Ethics (COPE)
- Open Access Option for Authors

1 # Appendix B

2 ## Search Terms and Syntax for Systematic Review

Database	Search Terms
	("mental health" OR "psychological wellbeing" OR "emotional wellbeing" OR "psychological distress") AND (parent* OR caregiver* OR “carer”) AND (hospitalised child* OR hospitalized child OR "paediatric patient" OR “pediatric patient” OR inpatient child* OR “PICU”) AND (“intervention” OR therap* OR “psychological support” OR "emotional support") AND (“stress” OR anxi* OR depress* OR “distress”)
Medline	((MH "Mental Health") OR (MH "Stress, Psychological") OR (MH "Anxiety") OR (MH "Depression") OR (MH "Well-Being") OR TX ("psychological well-being" OR "emotional well-being" OR "psychological distress") OR TX (stress OR anxi* OR depress* OR distress) AND ((MH "Parents") OR (MH "Caregivers") OR TX (parent* OR caregiver* OR carer*) AND ((MH "Child, Hospitalized") OR (MH "Child") OR (MH "Inpatients") OR (MH "PICU, Pediatric, Paediatric") OR TX ("hospitali?ed child*" OR "paediatric patient*" OR "pediatric patient*" OR "inpatient child*") AND ((MH "Intervention Studies") OR (MH "Psychotherapy") OR (MH "Psychological Techniques") OR (MH "Social Support") OR (MH "Stress Management") OR TX (intervention* OR therap* OR "psychological support" OR "emotional support")
PsychINFO	((DE "Mental Health") OR (DE "Psychological Well-Being") OR (DE "Stress") OR (DE "Anxiety") OR (DE "Depression") OR TX ("psychological distress" OR "mental health" OR "psychological well-being" OR "emotional well-being") OR TX (stress OR anxi* OR depress*) AND ((DE "Parents") OR (DE "Caregivers") OR TX (parent* OR caregiver* OR carer*) AND ((DE "Hospitalized Children") OR (DE "Children") OR (DE "Inpatients") OR TX ("hospitalized child*" OR "paediatric patient*" OR "pediatric patient*" OR "inpatient child*" OR PICU) AND ((DE "Psychotherapy") OR (DE "Stress Management") OR (DE "Social Support") OR TX (intervention* OR therap* OR "psychological support" OR "emotional support")
CINAHL	((MH "Mental Health+") OR (MH "Psychological Stress+") OR (MH "Anxiety") OR (MH "Depression+") OR (MH "Well Being") OR TX ("psychological distress" OR "mental health" OR "psychological well-being" OR "emotional well-being") OR TX (stress OR anxi* OR depress*) AND ((MH "Parents") OR (MH "Caregivers") OR TX (parent* OR caregiver* OR carer*) AND ((MH "Hospitalized Children") OR (MH "Inpatients") OR (MH Pediatric") OR TX ("hospitali?ed child*" OR "paediatric patient*" OR "pediatric patient*" OR "inpatient child*" OR PICU) AND ((MH "Psychotherapy") OR (MH "Stress Management") OR (MH "Social Support") OR (MH "Intervention Studies") OR TX (intervention* OR therap* OR "psychological support" OR "emotional support") AND ((MH "Stress, Psychological") OR (MH "Anxiety") OR (MH "Depression") OR X (distress)

Scopus	(TITLE-ABS-KEY("mental health" OR "psychological wellbeing" OR "emotional wellbeing" OR "psychological distress" OR stress OR anxi* OR depress*)) AND (TITLE-ABS-KEY(parent* OR caregiver* OR carer*)) AND (TITLE-ABS-KEY("hospitali?ed child*" OR "paediatric patient*" OR "pediatric patient*" OR "inpatient child*" OR PICU)) AND (TITLE-ABS-KEY(intervention* OR therap* OR "psychological support" OR "emotional

Appendix C

Author Guidelines for the Journal of Behavioural and Cognitive Psychology

Editorial Statement

Behavioural and Cognitive Psychotherapy is an international multidisciplinary journal for the publication of original research of an experimental, or clinical nature that contributes to the theory, practice and evaluation of cognitive and behavioural therapies. As such the scope of the journal is very broad, and articles relevant to most areas of human behaviour and human experience which would be of interest to members of the helping and teaching professions will be considered for publication.

As an applied science the concepts, methodology and techniques of behavioural psychotherapy continue to change. The journal seeks both to reflect and to influence those changes. While the emphasis is placed on empirical research, articles concerned with important theoretical and methodological issues as well as evaluative reviews of the behavioural literature are also published. In addition, given the emphasis of behaviour therapy on the experimental investigation of the single case, the journal from time to time publishes case studies using single case experimental designs.

For the majority of designs this should include a baseline period with repeated measures; in all instances the nature of the quantitative data and the intervention must be clearly specified. Other types of case report can be submitted for the Brief Clinical Reports section.

Articles should concern original material that is neither published nor under consideration for publication elsewhere. This applies also to articles in languages other than English.

Preparing Your Manuscript

Articles must be under 5,000 words at the point of submission, excluding references, tables and figures. Manuscripts describing more than one study may exceed no more than 6000 words but please make this clear in your cover letter.

Brief Clinical Reports should be no more than 1800 words (see more information below).

Please note that we currently do not usually accept studies carried out on student samples unless there is a clear indication of generalisability to clinical populations.

The journal strongly encourages blind review. Authors who want a blind review should indicate this at the point of submission of their article, omitting details of authorship and other identifying information from the main manuscript. Authors who do not omit this information will be assumed as submitting a non-blinded manuscript.

All submissions should be submitted via this portal: http://mc.manuscriptcentral.com/babcp

Research Transparency

Behavioural and Cognitive Psychotherapy believes in the importance of transparent and reproducible research. We therefore strongly encourage authors to make their evidence, data and other materials that underpin their findings openly available to readers which is outlined in our Research Transparency Policy. Authors will be asked on submission to include in their cover letter to the Editor whether they have made their data publicly available and confirm the inclusion of the Data Availability Statement. If the authors are not making their data publicly available, we ask them to state the reason why in their cover letter.

Article Types

Main*

Reports of original research employing experimental or correlational methods and using within or between subject designs. Review or discussion articles that are based on empirical data and that have important new theoretical, conceptual or applied implications.

Empirically Grounded Clinical Interventions*

This section is intended for reviews of the present status of treatment approaches for specific psychological problems. It is intended that such articles will draw upon a combination of treatment trials, experimental evidence and other research, and be firmly founded in phenomenology. It should take account of, but also go beyond, treatment outcome data.

Brief Clinical Reports*

Material suitable for this section includes unusual case reports and accounts of potentially important techniques, phenomena or observations; for example, descriptions of previously unreported techniques, outlines of available treatment manuals, descriptions of innovative variations of existing procedures, details of self-help or training packages, and accounts of the application of existing techniques in novel settings. The BCR section is intended to extend the scope of the clinical section. **Submissions to this section should be no longer than 1800 words and should include no more than six references, one table or figure, and an extended report that contains fuller details. There are no restrictions on the size or format of the extended report as it will be published online only.** It may, for instance, be a treatment manual, a fully detailed case report, or a therapy transcript. If a submission is accepted for publication as a Brief Clinical Report, the author(s) must be prepared to send the fuller document to those requesting it, free of charge. The extended document will also be mounted on the journal's website as a PDF format (the document will not be copyedited).

Study Protocols*

Protocols of proposed and ongoing trials in behavioural and cognitive therapies will be considered. Please note that we will not normally consider pilot or feasibility trials. Your study must be registered and have ethical approval, and proof of this will be required. The abstract should be structured under the following four headings; Background, Aims, Method, Discussion.

Please use the Standard Protocol Items: Recommendations for Interventional Trail (SPIRIT) checklist for protocols of randomised controlled trials (see the reporting standards section below). Manuscripts should be under 2000 words at the point of first submission, and include no more than 15 references, and no more than three tables/figures in total. A PDF with additional, unlimited text, figures and tables may be included designated for online only publication.

* These article types may be eligible for APC waivers or discounts under one of the agreements Cambridge University Press has made to support open access.

The journal also occasionally publishes Editorials and Obituaries, however these are published by invitation only and should not be submitted unsolicited.

Style Guide

The following should be included in all manuscripts:

Title page

This should be a separate file to the main text to ensure blind review.

The title should phrase concisely the major issues. Author(s) to be given with departmental affiliations and addresses, grouped appropriately. A running head of no more than 40 characters should be indicated.

The following statements should be included on the title page:

WELL-BEING IN PAEDIATRIC CARE: SUPPORT FOR CHILDREN AND CARERS

Acknowledgements
You may acknowledge individuals or organizations that provided advice, support (non-financial).

Conflict of Interest
Authors should include a Conflicts of Interest declaration in their title page. This statement will be published in the final article. Conflicts of Interest are situations that could be perceived to exert an undue influence on an author's presentation of their work. They may include, but are not limited to, financial, professional, contractual or personal relationships or situations. Conflicts of Interest do not necessarily mean that an author's work has been compromised. Authors should declare any real or perceived Conflicts of Interest in order to be transparent about the context of their work. If the manuscript has multiple authors, the author submitting the title page must include Conflicts of Interest declarations relevant to all contributing authors. For further information about Conflicts of Interest please see: https://www.icmje.org/recommendations/browse/roles-and-responsibilities/author-responsibilities--conflicts-of-interest.html.

Example wording for your Conflicts of Interest declaration is as follows: "Conflicts of Interest: Author A is employed at company B. Author C owns shares in company D, is on the Board of company E and is a member of organisation F. Author G has received grants from company H." If no Conflicts of Interest exist, your declaration should state "Conflicts of Interest: None".

If the study you are submitting focuses on a commercially available product (such as online CBT tools or APPS) or is funded by a commercial company, you should ensure that your Conflict of Interest statement covers the following:

- What the relationship is between the authors and the company. If authors had access to all study data and if they have entered into any agreement with the company that may limit their independence in analysis and interpretation of the data, preparation of the manuscript and choosing where to publish it.
- What the role of the sponsoring company has been in the following areas: design of the study; data collection, analysis and interpretation; writing the manuscript; approving the manuscript for publication and deciding where to publish.
- Authors should also state that they have not been encouraged or asked to repress, withhold, or modify any data, results, or conclusions by the sponsoring company.
- What influence the connection with the company could be perceived to have and how the authors have mitigated this.
- A statement may also be added by the Editorial Office to clarify what steps the Editors have taken to rule out any bias that may arise from any potential Conflict of Interest.
- Please note internal ethical approval by a commercial company would not be acceptable, it would need to be from an independent institution.
- Any authors with questions regarding this policy are welcome to contact the Editorial Office prior to submission to discuss further.

Data Availability Statement
This is a brief statement about whether the authors of an article have made the evidence supporting their findings available, and if so, where readers may access it. More information on Data Availability Statements and example statements can be found here. Please note that if you are not making your data publicly available, we ask you to state the reason why in your cover letter to the Editor.

Financial support
Please provide details of the sources of financial support for all authors, including grant numbers. For example, "This work was supported by the Medical research Council (grant number XXXXXXX)". Multiple grant numbers should be separated by a comma and space, and where research was funded by more than one agency the different agencies should be separated by a semi-colon, with "and" before the final funder. Grants held by different authors should be identified as belonging to individual authors by the authors' initials. For example, "This work was supported by the Wellcome Trust (A.B., grant numbers XXXX, YYYY), (C.D., grant number ZZZZ); the Natural Environment Research Council (E.F., grant number FFFF); and the National Institutes of Health (A.B., grant number GGGG), (E.F., grant number HHHH)". Where no specific funding has been provided for research, please provide the following statement: "This research received no specific grant from any funding agency, commercial or not-for-profit sectors."

Main Text (anonymised with no author information)

This should be uploaded as a .doc file with the following running order. The following format is based on APA style which should be followed throughout: http://www.apastyle.org/

Abstract

Should consist of no more than 250 words and structured under the following five headings: Background, Aims, Method, Results, and Conclusions. Include up to six key words that describes the article.

Main Text

This should contain the sections **Introduction** (including overview and theoretical background), **Method** (participants, design, data analyses and Ethical Statement- see below), **Results** (described in detail with summary figures and tables), **Discussion** (including conclusions and limitations).

Ethical statements

All papers should include a statement indicating that authors have abided by the Ethical Principles of Psychologists and Code of Conduct as set out by the BABCP and BPS. If preferred, authors based outside of the UK may state research has conformed to the Declaration of Helsinki. Authors should also confirm if ethical approval was needed, by which organisation, and provide the relevant reference number. If no ethical approval was obtained, the authors should state what governance arrangements were in place (e.g. audit committee approval). We also expect authors to respect human participants' right to privacy, and to gain any necessary informed consent to publish before submitting to us and include a statement in their manuscript that consent has been obtained. Where case reports are detailed in a submission, the author must state that the person described has seen the submission in full and agreed to it going forward for publication.

References

Please use APA style for the in-text citations and references. In the reference list there is an additional requirement that author names be listed in **bold face**. For example:

Grady, J. S., Her, M., Moreno, G., Perez, C., & Yelinek, J. (2019). Emotions in storybooks: A comparison of storybooks that represent ethnic and racial groups in the United States. *Psychology of Popular Media Culture, 8*(3), 207–217. https://doi.org/10.1037/ppm000...

Authors are encouraged to make use of referencing software packages (e.g. Endnote, Mendeley, Reference Manager etc.) to assist with formatting - extensions for APA formatting are easily accessible. Authors are also reminded to use bold face for author names in the reference list.

Tables and Figures

Manuscripts should usually not include more than five tables and/or figures. These should not be included in the body of the manuscript text but uploaded as individual files.

Use text anchors to show their intended position within the paper within the manuscript.

Numbered figure captions should be provided.

Tables should be provided in editable Word format. They should be numbered and given explanatory titles

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Figures

Colour figures are free of charge for online published articles but if authors wish figures to be published in colour in the print version the cost is £200.

Numbered figure captions should be provided.

All artwork should be submitted as separate TIFF format files.

Please follow this link for further guidance on artwork.

Seeking permission for copyrighted material

If your article contains any material in which you do not own copyright, including figures, charts, tables, photographs or excerpts of text, you must obtain permission from the copyright holder to reuse that material. As the author it is your responsibility to obtain this permission and pay any related fees, and you will need to send us a copy of each permission statement at acceptance.

Usually the publisher of the original work holds the copyright, unless explicitly stated otherwise. Most publishers have forms on their websites that can be completed electronically, or use automated electronic permissions services like Rightslink® to grant permissions automatically online. See here for more information on when you need to seek permission and how to request this.

Supplementary Information – Online only

Where unpublished material e.g. behaviour rating scales or therapy manuals are referred to in an article, copies should be submitted as an additional document (where copyright allows) to facilitate review. Supplementary files can be used to convey supporting or extra information to your study, however, the main manuscript should be able to 'stand-alone'. Supporting documents are reviewed but not copyedited on acceptance of the article. They can therefore be submitted in PDF format, and include figures and tables within the text. There is no word limit for supporting online information.

Supplementary materials will be published with the same metadata as your parent article, and are considered a formal part of the academic record, so cannot be retracted or modified other than via our article correction processes. Supplementary materials will not be typeset or copyedited, so should be supplied exactly as they are to appear online. Please make sure you are familiar with our detailed guidance on supplementary materials prior to submission.

Reporting Standards

Behavioural and Cognitive Psychotherapy supports standardised reporting practices, consult the following table to ensure your submission meets the reporting standards for your manuscript type. Please include the relevant supporting information (such as diagrams and checklists) with your submission files. See http://www.equator-network.org/reporting-guidelines/ for more information on manuscript types not described below.

The journal also encourages clarity in describing interventions sufficient to allow their replication through the use of the Template for Intervention Description and Replication Checklist (TIDieR).

Randomised Controlled Trial	CONSORT	http://www.consort-statement.org/
Systematic reviews and Meta-Analysis	PRISMA	http://www.prisma-statement.org/
Study Protocols	SPIRIT	http://www.spirit-statement.org/

Suggested Reviewers

During the submission process, you will be asked to indicate your preferred and non-preferred reviewers, and the reasons for your choices.

Preferred reviewers:

- Should not have a conflict of interest (such as a recent or current close working relationship, or from the same institution)
- At least half of the list should be international to yourself
- Please consider early career researchers as well as field leaders
- Please suggest both niche experts and those with wider knowledge of the subject

Non-preferred reviewers:

- May have personal or subjective bias to your work which disregards the scientific merit
- May have seen or commented on the submitted manuscript, or prior versions.

Data Availability

Behavioural and Cognitive Psychotherapy believes in the importance of transparent and reproducible research. We therefore strongly encourage all submissions to include a Data Availability Statement to describe whether the materials that underpin the findings of the manuscript have been made available to readers, and if so, where. This policy will be encouraged from August 2020 and made mandatory by January 2022. For more information on including a data availability statement and making data available please see the information on the Research Transparency page.

Use of Inclusive Language

BCP reminds authors to use inclusive language (see these C4DISC guideines for further information) which are in line with the BABCP values of opposing discrimination of any kind and continually working to improve our recognition of, and take an active stance against discrimination and inequality.

Use of artificial intelligence (AI) tools

We recognise that the use of artificial intelligence (AI) in research publications is increasing. However, we do not consider artificial intelligence (AI) tools to meet the accountability requirements of authorship, and therefore generative AI tools such as ChatGPT and similar should not be used in any part of the writing of manuscripts, including editing and referencing. Nor should these tools be listed as an author on any submitted content.

We will permit the use of AI tools for spelling and grammar checking to improve the readability and language of a manuscript. This must be done with human oversight and authors should carefully review the output before submission. Any use of generative AI tools must be disclosed by the authors in the Acknowledgements section in the title page of their manuscript. This should include the tool used and its version, the date it was used and reason for its use along with a declaration that the author(s) are entirely responsible for the scientific content of the paper and that the paper adheres to the journal's authorship policy. Failure to acknowledge assistance from technical writers, language editors, AI tools and/or writing agencies in drafting manuscripts for publication in the Acknowledgements section may lead to disqualification of the paper.

Author affiliations

Author affiliations should represent the institution(s) at which the research presented was conducted and/or supported and/or approved. For non-research content, any affiliations should represent the institution(s) with which each author is currently affiliated.

For more information, please see our author affiliation policy and author affiliation FAQs.

ORCID

We encourage authors to identify themselves using ORCID when submitting a manuscript to this journal. ORCID provides a unique identifier for researchers and, through integration with key research workflows such as manuscript submission and grant applications, provides the following benefits:

- Discoverability: ORCID increases the discoverability of your publications, by enabling smarter publisher systems and by helping readers to reliably find work that you have authored.
- Convenience: As more organisations use ORCID, providing your iD or using it to register for services will automatically link activities to your ORCID record, and will enable you to share this information with other systems and platforms you use, saving you re-keying information multiple times.
- Keeping track: Your ORCID record is a neat place to store and (if you choose) share validated information about your research activities and affiliations.

See our ORCID FAQs for more information. If you don't already have an iD, you can create one by registering directly at https://ORCID.org/register.

ORCIDs can also be used if authors wish to communicate to readers up-to-date information about how they wish to be addressed or referred to (for example, they wish to include pronouns, additional titles, honorifics, name variations, etc.) alongside their published articles. We encourage authors to make use of the ORCID profile's **"Published Name" field** for this purpose. This is entirely optional for authors who wish to communicate such information in connection with their article. Please note that this method is not currently recommended for author name changes: see Cambridge's author name change policy if you want to change your name on an already published article. See our ORCID FAQs for more information.

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Appendix D

HRA Ethical Approval Letter

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

NHS
Health Research Authority

Miss Harriet Leader-White
Trainee Clinical Psychologist
Cambridge and Peterborough NHS Foundation Trust (CPFT)
Norwich Medical School
University of East Anglia
Norwich
NR4 7TJ

Email: approvals@hra.nhs.uk
HCRW.approvals@wales.nhs.uk

19 August 2025

Dear Miss Leader-White

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**An Acceptance and Commitment Therapy, Psychoeducation Single Session Intervention on Childhood Anxiety for Care Givers of Children with Long Term Health Conditions: A Quantitative Feasibility Study**
IRAS project ID:	**349484**
REC reference:	**25/SW/0067**
Sponsor	**University of East Anglia**

I am pleased to confirm that HRA and Health and Care Research Wales (HCRW) Approval has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The standard conditions document "*After Ethical Review – guidance for sponsors and investigators*", issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **349484**. Please quote this on all correspondence.

Yours sincerely,
Laura Hodgin
Approvals Specialist
Email: approvals@hra.nhs.uk HCRW.approvals@wales.nhs.uk

Copy to: *Ms Sarah Ruthven*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Copies of materials calling attention of potential participants to the research [Study Advert]	2	07 November 2024
Copies of materials calling attention of potential participants to the research [Social media post]	2	02 January 2025
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Sponsor letter]	1	01 May 2025
IRAS Application Form [IRAS_Form_15052025]		15 May 2025
Non-validated questionnaire [Demographic Questionnaire]	5	02 January 2025
Non-validated questionnaire [Structured Feedback Questionnaire (with tracked changes)]	8	06 June 2025
Non-validated questionnaire [Structured Feedback Questionnaire - clean version]	8	06 June 2025
Non-validated questionnaire [Follow-up structured feedback questionnaire (with tracked changes)]	9	05 August 2025
Non-validated questionnaire [Follow-up structured feedback questionnaire - clean version]	9	05 August 2025
Other [Field Supervisor CV]	1	25 October 2024
Other [Field supervisor CV]	1	24 October 2024
Other [Debrief form]	5	02 January 2025
Other [Insurance letter (additional)]	1	01 May 2025
Other [Insurance letter (additional)]	1	01 May 2025
Other [Insurance letter (additional)]	1	01 May 2025
Other [Psychoeducation video plan]	5	13 May 2025
Other [PIC agreement form]	1	13 May 2025
Other [Response to validation queries re child involvement]		15 May 2025
Other [Exercise sheet]	1	05 August 2025
Other [Response to committee requested information]	1	05 August 2025
Participant consent form [Consent Form (with tracked changes)]	9	05 August 2025
Participant consent form [Consent form - clean version]		
Participant information sheet (PIS) [Participant Information Sheet (with tracked changes)]	12	25 July 2025
Participant information sheet (PIS) [Participant Information Sheet - clean version]	12	25 July 2025
Research protocol or project proposal [Research Protocol (with tracked changes)]	7	19 June 2025
Summary CV for Chief Investigator (CI) [Chief Investigator CV]	1	30 October 2024
Summary CV for student [Student CV]	1	30 October 2024
Summary CV for supervisor (student research) [Supervisor CV]	1	10 October 2024
Validated questionnaire [PABUA]	3	02 January 2025

WELL-BEING IN PAEDIATRIC CARE: SUPPORT FOR CHILDREN AND CARERS

IRAS project ID	349484

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
Activities at NHS organisations will involve PIC activity only, including the screening of records of patients they would ordinarily be seeing during the recruitment period. Therefore, minimal time would be spent in addition to their standard practice. Clinicians will provide the study advert to any potential suitable participants and direct them to the contact details on the poster for any further questions.	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study in accordance with the contracting expectations detailed. Due to the nature of the activities involved, organisations will be expected to provide that confirmation to the sponsor Within 35 **days** of receipt of the local information pack After HRA/HCRW Approval has been issued. If the organisation is not able to formally confirm capacity and capability within this timeframe, they must inform the sponsor of this and provide a justification. If the sponsor is not satisfied with the justification, then the sponsor may escalate to the National Coordinating Function where the participating NHS organisation is located.	The sponsor has provided the appropriate model non-commercial PIC agreement that it intends to use as a contract between itself and NHS organisations acting as their Participant Identification Centres (PICs).	Sponsor is not providing funding to PICs	The Chief Investigator will be responsible for all study activities performed at PICs.	Where an external individual will be conducting any of the research activities that will be undertaken at this site type then they would be expected to hold a Letter of Access. This should be issued be on the basis of a Research Passport (if university employed) or an NHS to NHS confirmation of pre-engagement checks letter (if NHS employed). No confirmation of Occupational Health Clearance or DBS checks would be expected.

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they intend to apply for inclusion on the NIHR CRN Portfolio.

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Appendix D

HRA Amendment Ethical Approval Letter

NHS
Health Research Authority

South West - Central Bristol Research Ethics Committee
2 Redman Place
Stratford
LONDON
E20 1JQ

Please note: This is the favourable opinion of the REC only and does not allow the amendment to be implemented at NHS sites in England until the outcome of the HRA assessment has been confirmed.

09 December 2025

Dear Harriet Leader-White,

Study title:	**An Acceptance and Commitment Therapy, Psychoeducation Single Session Intervention on Childhood Anxiety for Care Givers of Children with Long Term Health Conditions: A Quantitative Feasibility Study**
REC reference:	**25/SW/0067**
Amendment number:	**SA_01**
Amendment date:	**21 November 2025**
IRAS project ID:	**349484**

The above amendment was reviewed by the Sub-Committee in correspondence.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Completed Amendment Tool [Amendment Tool]	1	21 November 2025
Copies of materials calling attention of potential participants to the research [Consent to Contact form]	1	19 November 2025
Copies of materials calling attention of potential participants to the research [Study advert]	3	19 November 2025
Other [Email containing video]		

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

Working with NHS Care Organisations

Sponsors should ensure that they notify the R&D office for the relevant NHS care organisation of this amendment in line with the terms detailed in the categorisation email issued by the lead nation for the study.

Amendments related to COVID-19

We will update your research summary for the above study on the research summaries section of our website. During this public health emergency, it is vital that everyone can promptly identify all relevant research related to COVID-19 that is taking place globally. If you have not already done so, please register your study on a public registry as soon as possible and provide the HRA with the registration detail, which will be posted alongside other information relating to your project.

Statement of compliance

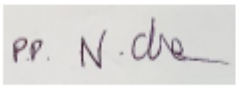
The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

HRA Learning

We are pleased to welcome researchers and research staff to our HRA Learning Events and online learning opportunities– see details at: https://www.hra.nhs.uk/planning-and-improving-research/learning/

IRAS Project ID - 349484:	**Please quote this number on all correspondence**

Yours sincerely



Chair

E-mail: centralbristol.rec@hra.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*

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South West - Central Bristol Research Ethics Committee

Attendance at Sub-Committee of the REC meeting on 02 December 2025

Committee Members:

Name	*Profession*	*Present*	*Notes*
Dr Stephen Daniels	Retired Research Director PET Centre	Yes	Meeting Chair
Dr Prathima Gogineni	Research Physician	Yes	

Appendix E:

Study Advertisement

IRAS number: 349484 Version 3 (19.11.2024)

ONLINE SUPPORT FOR PARENTS/ CARERS OF CHILDREN WITH LONG TERM HEALTH CONDITIONS

We are looking for carers of children aged 5-12 with a long term health condition (e.g. asthma, diabetes or epilepsy), who also experience anxiety, to take part in a study.

What is involved?

You will watch a 25-minute, online video and complete brief surveys before and after the video.

Are there any benefits for me?

The aim is for you to gain some understanding of anxiety and learn strategies to support your child.

CHANCE TO WIN A £20 AMAZON VOUCHER!



Please email Harriet Leader-White (primary researcher) on h.leader-white@uea.ac.uk with any questions

For more details or to take part, please scan the QR code or follow the link: https://app.onlinesurveys.jisc.ac.uk/s/uea/thesis

Appendix F:

Participant Information Sheet (PIS)

Version 12 IRAS ID: 349484 25.07.2025

PARTICIPANT INFORMATION SHEET

An Acceptance and Commitment Therapy Intervention on Childhood Anxiety for Care Givers of Children with Long Term Health Conditions:

A Quantitative Feasibility Study

University of East Anglia

Invitation to research

You are being invited to take part in a psychological study. Before you decide whether to take part, it is important for you to understand the purpose of the study and what it will involve.

Please read this information sheet and take time to consider whether this is a piece of research you wish to be part of.

What is the study about?

The project aims to examine whether a new intervention to support childhood anxiety is feasible. As this is a feasibility study, the aim is to understand whether the intervention is possible, to inform larger pieces of research in the future. The intervention is designed to enhance caregivers' understanding of anxiety and their confidence in supporting their child. The intervention is specifically designed for caregivers of children with long term, non-life-threatening conditions (the condition does not lead to death but may still cause significant discomfort or limitations).

Why have I been invited?

Living with a long-term health condition is likely to be anxiety-provoking for a child. You have been invited to take part in the study as we feel as a caregiver of a child with a long-term health condition, your input into future interventions to support children is extremely valued.

What will I be asked to do?

- You will be asked to complete 2 brief questionnaires, which should take no longer than 10 minutes to complete.
- You will then be asked to watch videos, which aims to improve your understanding of anxiety and anxiety management techniques which may be able to be applied to support your child. The video will last for around 30 minutes.
- Following this, you will be asked to complete a questionnaire which should take approximately 10 minutes to complete.
- Two weeks later, you will be contacted via email to repeat the 2 questionnaires that you completed prior to the videos. These should take approximately a total of 10 minutes to complete.

You will be part of a large pool of participants all completing the same procedure.

Are there any advantages if I participate?

By taking part in the study, you will be supporting the exploration of new interventions. Your feedback will be extremely valuable in understanding how the intervention can be improved for future use. It is also hoped that you will find the intervention educational and take away strategies to support your child's anxiety.

Are there any risks if I participate?

Although the intervention is educational and is not expected to cause you any discomfort, it can be emotive when thinking about difficult topics such as a child's health.

In the event that something does go wrong and you are harmed during the research and this is due to someone's negligence then you may have grounds for a legal action for compensation against either the University of East Anglia (who designs and manages the research) or NHS Trust (who conducts the research), but you may have to pay your legal costs.

Do I have to take part?

Taking part in the study is voluntary and you do not have to take part. Consent is identified by completing the informed consent form. If you choose not to take part, it will not affect your child's treatment in any way.

Are there any restrictions to whether I can take part?

This study is for parents or caregivers of children aged 5-12 years. This age range has been chosen so the materials are relevant and applicable for all participants.

If your child has a diagnosed learning disability or waiting for an assessment by a professional for a learning disability, you will be unable to take part in the research. This criterion does not include those with dyslexia or ADHD. If you believe your child has a learning disability that you feel interferes with their day-to-day functioning but has not been formally diagnosed, you will also not be able to take part. Children with autism will also be excluded from the study as adaptations would be needed to the intervention to meet the child's needs. This is because the intervention being used in the study is a new design and at this point, adaptations to meet the needs of these children have not yet been made.

How will we use the information about you?

We will need to use information from you for this research project.

This information will include:

- Your name
- Age
- Gender
- Ethnicity
- Email address (optional if you choose to take part in the follow-up or wish to be sent the research summary in the future).

People who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead.

The University of East Anglia (UEA) is the sponsor of this research, and is responsible for looking after your information. We will keep all information about you safe and secure by:

- Ensuring no identifiable information is given in any future report.
  In bullet points, concisely list some of the steps you will take to keep information secure.
- Data management will follow the Data Protection Act 2018 (DPA 2018) and UK General Data Protection Regulation (UK GDPR).

Your data will not be shared outside of the UK.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

We will keep your study data for the minimum period of time required to complete the research (likely September 2026). The study data will then be fully anonymized and securely archived or destroyed.

The results of the research will be used in a Doctorate Programme thesis project and potentially published in the future.

What are your choices about how your information is used?

You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have.

You have the right to ask us to remove, change or delete data we hold about you for the purposes of the study. We might not always be able to do this if it means we cannot use your data to do the research. If so, we will tell you why we cannot do this.

Where can you find out more about how your information is used?

You can find out more about how we use your information:

- www.hra.nhs.uk/patientdataandresearch
- by asking one of the research team
- by sending an email to dataprotection@uea.ac.uk or
- by ringing us on 01603 591366

Who is the research overseen by?

The study is part a thesis project on the Clinical Psychology Doctorate Programme at the University of East Anglia (UEA). The project has approval from NHS ethics *(insert approval number).*

What shall I do if I want to take part?

If you wish to take part in the study, please continue on to the informed consent form.

Further Supporting Information

If you have questions or concerns about any aspect of the study, you can contact the research team using the following contact information:

Primary researcher:

Harriet Leader-White (h.leader-white@uea.ac.uk), Trainee Clinical Psychologist, University of East Anglia.

Supervisor:

Kiki Mastroyannopoulou (k.mastroyannopoulou@uea.ac.uk), Clinical Associate Professor, University of East Anglia.

If you have any concerns or complaints: please contact Professor Niall Broomfield (n.broomfield@uea.ac.uk), Head of Department of Clinical Psychology and Psychological Therapies (CPPT), Professor of Clinical Psychology, Programme Director for ClinPsyD, Director of Postgraduate Studies, University of East Anglia. Alternatively, you can ring 01603 456161.

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Appendix G

Consent Form

Version 9 IRAS ID: 349484

05.08.2025

CONSENT FORM

An Acceptance and Commitment Therapy, Psychoeducation Single Session Intervention on Childhood Anxiety for Care Givers of Children with Long Term Health Conditions: A Quantitative Feasibility Study

University of East Anglia

The project aims to examine whether a new intervention to support childhood anxiety is feasible. The intervention is designed to enhance caregivers understanding of anxiety and their confidence in supporting their child. The psychoeducation intervention is specifically designed for caregivers of children with long term, non-life-threatening conditions (the condition does not lead to death but may still cause significant discomfort or limitations).

In order to participate in the above study, it is essential that you give informed consent. By signing this informed consent form, you are indicating that you understand what the research involves and that you agree to take part.

Please tick the box if you agree with the statements.

1. I confirm that the child in question does not have a diagnosed learning disability or Autism or waiting for an assessment by a professional (excluding dyslexia or ADHD). ☐
2. I confirm that I am the primary caregiver to the child. ☐
3. I understand that I am participating in psychological research and I have been informed of the nature of the study. ☐
4. I understand that my participation will be anonymous and that information will remain confidential. ☐
5. I understand that my participation in the study is voluntary and I am under no obligations to participate. ☐
6. I understand that I may withdraw from participating at any time until 2 weeks following completing the study. ☐
7. I consent to watching an educational video on anxiety. ☐
8. I confirm that I am over the age of 18. ☐
9. I confirm that I am a UK resident. ☐
10. I confirm that I am the same person consenting and taking part in the study. ☐

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Version 9 IRAS ID: 349484

05.08.2025

11. I give consent to be contacted by email in 2 weeks-time for a follow-up of the study.

Yes ☐

If answered yes, please provide your email address below:

.....

No ☐

12. I give my consent to take part in the above study. ☐

13. What is 2 + 2? .....

By clicking 'agree' you are confirming that you agree with all of the above statements. Once you have clicked agreed, you will begin the study.

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Appendix H:

Demographic Questionnaire

Version 5 IRAS ID: 349484 02.01.2025

NHS

University of East Anglia

Demographic Questionnaire

1. What is your relationship to the child with the health condition?

   .....

2. How old is the child? .....
3. Does the child attend school? **Yes / No**
4. Does the child have more than one physical health diagnoses? **Yes / No**
5. What is the child's diagnosis? .....
6. Does the child's physical health condition result in them being classified as disabled? **Yes / No**
7. How long since the child received their diagnosis?.....
8. Has the child had any input from psychological services previously? **Yes / No**

   If yes, what? .....
9. How old are you? .....
10. What gender do you identity with? *(Select from drop down menu: Male, Female, Non-Binary, Trans-gender, Prefer not to answer)*
11. What is your ethnicity*? (Select from drop down menu: White [British, English, Welsh Scottish, Northern Irish, Irish, Irish Traveller, Any other white background]. Black [African, Caribbean or any other Black background]. Multiple ethnic groups [White and Black Caribbean, White and Black African, White and Asian, Any other multiple ethnic background], Asian [Indian, Pakistani, Bangladeshi, Chinese, Any other Asian background], Other ethnic group [Arab], Prefer not to answer)*
12. Have you had any previous mental health training? **Yes / No**

    If yes, what? .....

Appendix I:

Parent Attitudes, Beliefs and Understanding about Anxiety (PABUA)

Version 3 IRAS ID: 349484 02.01.2025

The following measure using terminology aimed at parents. Please complete the following measure regardless of your relationship with the child.

University of East Anglia

Parent Attitudes, Beliefs, and Understanding about Anxiety (PABUA)

These questions relate to your attitudes and beliefs about your child when he/she is feeling **nervous** or **anxious**. Please indicate the degree to which you agree with each of the following items using the scale below. There are no right or wrong answers. Simply circle your response to each item.

1	2	3		4	
Strongly disagree	Disagree somewhat	Neither agree nor disagree		Agree somewhat	

1.	My child's anxiety will decrease if he/she avoids what makes him/her anxious.	1	2	3	4	5
2.	My child should be excused from activities that make him/her nervous.	1	2	3	4	5
3.	A good parent will not push his/her child to do things that makes him/her nervous.	1	2	3	4	5
4.	A way to help my child feel less anxious is to encourage him/her to face his/her fears.	1	2	3	4	5
5.	Anxious children are sensitive and need to be protected.	1	2	3	4	5
6.	If my child had different parents perhaps he/she would not be so anxious.	1	2	3	4	5
7.	As a parent I am very limited in how much I can help my child with his/her anxiety.	1	2	3	4	5
8.	It is hard for me to be with my child when he/she is nervous.	1	2	3	4	5
9.	I feel uncertain about how to help my child when he/she is anxious.	1	2	3	4	5
10.	My child is my best friend.	1	2	3	4	5
11.	It is important that other people in my child's life (e.g., teachers) do not push him/her to do things that make him/her nervous.	1	2	3	4	5
12.	A good parent allows their child to have freedom and experience things on their own.	1	2	3	4	5
13.	I feel uncomfortable when my child feels anxious.	1	2	3	4	5
14.	It is important that I keep my child safe from his /her worries.	1	2	3	4	5
15.	My child should not be worried.	1	2	3	4	5
16.	Children can learn a great deal from their mistakes.	1	2	3	4	5
17.	It is important that I protect my child from feeling anxious.	1	2	3	4	5

Podell, J.L., Benjamin, C.L., Beidas, R.S., Crawley, S., & Kendall, P.C. (2009). Parent Attitudes and Beliefs about Anxiety (PABA). Unpublished measure.

Wolk, C.B., Caporino, N.E., McQuarrie, S., Settipani, C.A., Podell, J.L., Crawley, S., Beidas, R.S., & Kendall, P.C. (2016). Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA): Development and psychometric properties of a measure. Journal of Anxiety Disorders, 39, 71-78.

18.	My child will be traumatized if I push him/her to do something that makes him/her nervous.	1	2	3	4	5
19.	If my child is forced to face his/her anxiety it will make it worse.	1	2	3	4	5
20.	I try not to think about my child's anxiety.	1	2	3	4	5
21.	It is important for children to see adults cope with anxiety.	1	2	3	4	5

Podell, J.L., Benjamin, C.L., Beidas, R.S., Crawley, S., & Kendall, P.C. (2009). Parent Attitudes and Beliefs about Anxiety (PABA). Unpublished measure.

Wolk, C.B., Caporino, N.E., McQuarrie, S., Settipani, C.A., Podell, J.L., Crawley, S., Beidas, R.S., & Kendall, P.C. (2016). Parental Attitudes, Beliefs, and Understanding of Anxiety (PABUA): Development and psychometric properties of a measure. Journal of Anxiety Disorders, 39, 71-78.

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Appendix J:

Structured Feedback Questionnaire

Version 8 IRAS ID: 349484 06.06.2025

NHS

Structured Feedback Questionnaire

University of East Anglia

Please answer all of the questions as honestly and accurately as possible. Please indicate your rating by circling the number which best fits your view.

1. The consent process was easy to understand.

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

2. The videos were helpful for caregivers.

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

3. The video content was applicable for me.

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

4. The content was interesting.

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

5. The training feels important for caregivers of children with long term health conditions.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

6. The training was appropriate for paediatric health settings.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

7. The pacing of the video was appropriate.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

8. The video format was appropriate.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

9. I feel another format (other than pre-record video) would have been more appropriate for the training.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

If so, please specify in the box below.

10. The length of the training was appropriate (if not, please specify in the comments box).

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

11. Following the training, I felt more confident in my understanding of anxiety.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

12. Following the training, I felt more confident in supporting the child if they are anxious.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

13. Following the training, I felt more likely to seek psychological support for my child.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

14. I would recommend the training to others.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

15. I found the questionnaires easy to complete.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

16. I understood what the questionnaires were asking me.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

17. I found it difficult to find enough time to complete the research.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

18. I enjoyed taking part in the research.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

Please provide any further comments in the box below.

Please provide an email address if you are happy to be contacted in 2 weeks' time, to complete brief follow-up measures.

Please mark the box if you would like to receive a summary of the results once the research has been completed. ☐

If yes, please provide your email address for this if you have not already done so above, in order to send the summary.

If you have not provided your email address for the follow-up, this will not be affected and you will only be contacted a summary of the research findings.

Appendix K

Follow-up Feedback Questionnaire

Version 9 IRAS ID: 349484

05.08.2025

Follow Up Structured Feedback Questionnaire

Please answer all of the questions as honestly and accurately as possible. The following questions are asking for **your** experience of the psychoeducation training. It is okay to not have used any of the suggested strategies from the video.

University of East Anglia

Please indicate your rating by circling the number which best fits your view or ticking the relevant box.

1. **Since completing the training, I have found the content from the training helpful when supporting the child.**

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

2. **Since completing the training, I have found it easy to use the content and strategies to support the child.**

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

3. **I have found there have been challenges to using the training to support the child?**

1	2	3	4	5
Strongly disagree		**Neutral**		**Strongly agree**

Please specify any challenges you have faced with using the training.

4. Since completing the training, rate whether you found the following exercises useful.

   a. The passengers on the bus metaphor

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

   b. Sky and the weather metaphor.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

   c. Put your worries on a cloud exercise.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

   d. Don't think about the purple elephant exercise

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

   e. Blowing bubbles exercise

   f. Put your worries on a cloud

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

   g. Child writes a kind and caring letter to yourself

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

h. Your write a kind and caring letter to yourself

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

5. Have you recommended the training to other caregivers who may benefit?

Yes ☐ No ☐ Prefer not to say ☐

6. Do you have any general feedback which has not otherwise been covered?

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Appendix L

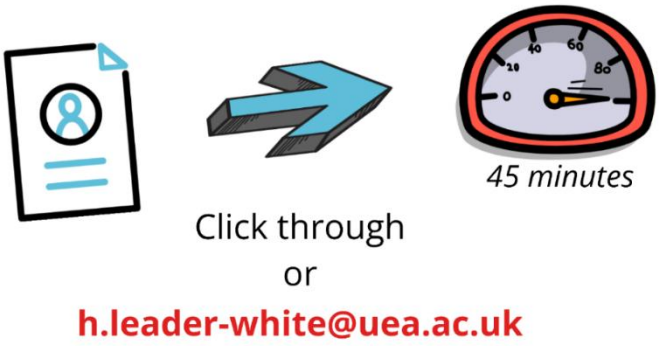
Training Sample Images and Accessible Links

Introduction video: https://youtu.be/e7t_-LUWXMg

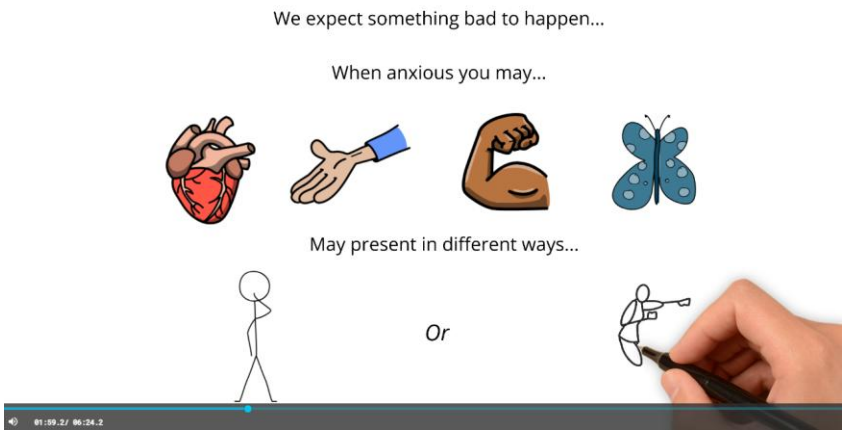
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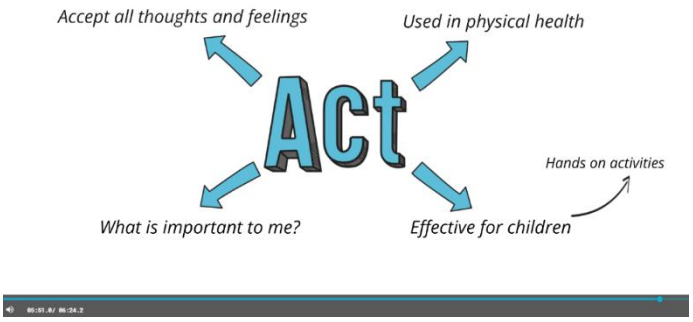
Video 2: https://youtu.be/gvK5iJ9Ht9Y

Video 3: https://youtu.be/HWffNvqdRrs

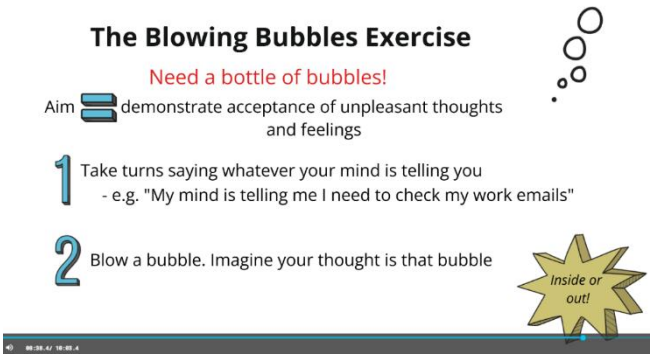




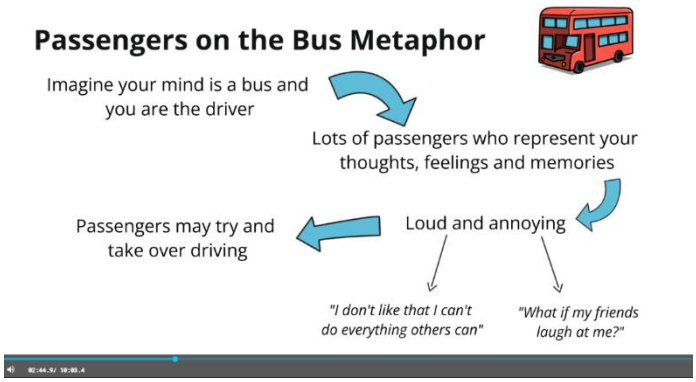



Accept all thoughts and feelings
Used in physical health
Act
Hands on activities
What is important to me?
Effective for children

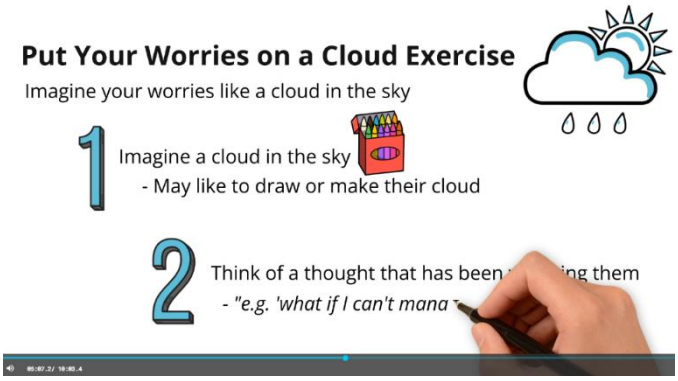
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The Blowing Bubbles Exercise
Need a bottle of bubbles!
Aim
demonstrate acceptance of unpleasant thoughts and feelings
1
Take turns saying whatever your mind is telling you
- e.g. "My mind is telling me I need to check my work emails"
2
Blow a bubble. Imagine your thought is that bubble
Inside or out!

2


Passengers on the Bus Metaphor
Imagine your mind is a bus and you are the driver
Lots of passengers who represent your thoughts, feelings and memories
Passengers may try and take over driving
Loud and annoying
"I don't like that I can't do everything others can"
"What if my friends laugh at me?"

3


Put Your Worries on a Cloud Exercise
Imagine your worries like a cloud in the sky
1
Imagine a cloud in the sky
- May like to draw or make their cloud
2
Think of a thought that has been
- "e.g. 'what if I can't mana


Important...
...Kindness and compassion towards yourself
If children observe you they are likely to model this behaviour

4


Self Care Exercise
"Say to yourself if having a bad day?"
"...hospital appointment?"

5

6

7

8

Appendix M:

Downloadable Version of Exercises

Version 2 IRAS ID: 349484 19.09.2025

Below are the metaphors and exercises used in the training to consider using when supporting you child with their anxiety.

Passengers on the bus metaphor

- This is a well-established metaphor designed to demonstrate the ACT principles.
- The metaphor shows how to acknowledge and accept challenging thoughts and emotions, rather than trying to eliminate them.
- This metaphor explains that your mind is a bus and you are the driver of the bus.
- There are lots of passengers on the bus, who represent your thoughts, feeling and memories. Some of the passengers are likely to be loud and annoying, for example "what if my friends laugh at me?" The passengers will try and take over driving.
- It is impossible to kick the passengers off! Instead, try to simply notice the passengers and accept they are on the bus.
- Keep driving the bus, despite the passengers yelling. You are the driver of your own bus and can choose the direction it goes in.
- The metaphor aims to highlight that we will always experience anxiety at times throughout our lives, but we can still continue to choose our buses journey.



Sky and the weather metaphor

- This is a commonly used metaphor in ACT which represents several of the ACT principles.
- The metaphor recognises that although the weather chains, the sky always remains constant despite this. This represents the individual staying steady amongst changing thoughts and emotions.
- The metaphor recognises that the weather changes, for example we may go from blue skies to a thunderstorm in minutes. Despite this, the sky is always present and is constant throughout the different weather conditions.
- This approach can help encourage children to create separation between themselves and their anxiety, so they are likely to put less weight to their anxious thoughts. They are the sky and anxious thoughts and feelings will come and go.



Version 2 IRAS ID: 349484 19.09.2025

Put your worries on a cloud exercise

Builds on the meaning of the sky and the weather metaphor.

Involves imaging the child's worries as a cloud in the sky.

1. Imagine a cloud in the sky. The cloud might be white and fluffy or stormy and grey, whatever the child wants the cloud to look like.
- Some children may also like to draw their clouds to make it easier to imagine them.
2. Consider a thought that has been worrying them, for example "what if I can't manage my symptoms whilst at school?"
3. Imagine placing this thought onto the cloud, or draw it onto the cloud.
4. Encourage the child to watch the cloud drift away, with the thought attached to it. As it drifts away the cloud gets smaller and smaller, and so does the thought.

Aim of the exercise is to demonstrate to the child that worries come and go, just like clouds, and this is completely normal.

This can hopefully help children in externalising their worry, accepting it is temporary and separating themselves from the worry.



Version 2 IRAS ID: 349484 19.09.2025

Don't think about the purple elephant exercise

1. **Do not think about a purple elephant for the next minute. Do not think about what it may look like, how it might smell, what it looks like when it moves, what shade of purple it is, or whether it has any patterns on it.**
2. After the minute has been, carers should ask the child what they thought about during the time, and did they think about the purple elephant at all?
   - Carers should be open that they found it very difficult not to think about the purple elephant!

This exercise demonstrates that when we try not to think about something, it often makes it louder. For example, when a child is trying to suppress their feelings of anxiety and worry, it may make the anxiety feel overwhelming as avoidance can strengthen the distress.



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Blowing bubbles exercise

You will need a small bottle of bubbles for this exercise!

Aim of this exercise is to demonstrate acceptance of unpleasant thoughts and feelings. The idea is to notice any thoughts, but not do anything to them.

It's an enjoyable exercise to do with your child either inside or outside.

1. Take turns by saying out loud what your mind is telling you. For example, you might say "My mind is telling me I need to check my work emails."
2. Then blow a bubble.
3. Keep repeating this, taking turns each time.

- *You may want to scatter difficult thoughts amongst neutral ones (e.g. "My mind is telling me I should be better at blowing bubbles." This will show your child that everyone has challenging thought, including everyday small things and other challenging thoughts that play on our minds.*

4. Do not do anything to the bubbles, just watch them. Do not pop them, push them away or stomp them. Just simply watch the bubbles.

By not doing anything with the bubbles, it creates space between the child and their thoughts. This results in them being less attached to the thought, putting less weight on them.



Appendix N:

Debrief form

Version 5 IRAS ID: 349484

02.01.2025

DEBRIEF INFORMATION

An Acceptance and Commitment Therapy, Psychoeducation Single Session Intervention on Childhood Anxiety for Care Givers of Children with Long Term Health Conditions: A Quantitative Feasibility Study

University of East Anglia

Thank you for your participation in this study.

What will happen to the results of the research study?

The results of the research will be used in a Doctorate Programme thesis project and potentially published in the future. Your details will remain anonymous throughout.

Additional Support

We do not anticipate that taking part in this study will have caused distress, but it potentially may have caused you to reflect on difficult feelings for yourself and/or child. If this has happened, a list of recommended support services are listed below:

Mind (www.mind.co.uk) – 0300 123 3393 (Monday to Friday, 9am to 6pm)

Samaritans (www.samaritans.org.uk) – 116 123 (free 24-hour helpline)

SANE (www.sane.org.uk) – 0300 304 7000 (04:30am-10:30pm every day)