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Exploring the Utility of EMDR with Children and Young People

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Submitted in partial fulfilment of the requirements for the degree of

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Foreword

The major research project (Chapter 2) has been subject to several changes due to unforeseen challenges with timely obtainment of ethical approval and considerable difficulties during the recruitment stage of the project. The project also changed from having two field supervisors to having no field supervision for a period of five months. It was anticipated that as the field supervisors routinely used EMDR that several of the participants would be recruited via them, which was not possible. The main NHS Highland R & D contact point for the project was also on unexpected leave during the ethics process, which resulted in lengthy waits for feedback and completion of required forms. Discussion with clinicians at the recruiting service has offered possible explanations for the unforeseen challenges with recruitment including that due to Covid and the service currently functioning in a 'crisis' mode, less clinicians have taken on EMDR cases than expected when the study was initially proposed and approved.

Consequently, the proposed sample size of 6 - 10 participants was no longer feasible due to considerably fewer potential participants being available than initially anticipated. After exhausting the pool of potential participants during the initial recruitment phase attempts to widen the pool were made. The project was extended by three months to try to capture participants who had just commenced EMDR or were about to commence EMDR during the initial recruitment phase, and the age range was extended from 10 - 16 years old, to 10 - 19 years old. Through these additional recruitment avenues, it was possible to conduct the study with a smaller than anticipated sample of four. As IPA was used, a smaller sample size still enabled adequate data for this type of analytic approach (Smith et al., 2021).

Chapter One: Systematic Review

A Systematic Review of Efficacy and Effectiveness Studies of EMDR in Paediatric Clinical Health Psychology

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Abstract

Background: Eye Movement Desensitisation and Reprocessing therapy (EMDR) has been utilised as an intervention for many different presentations since it's development for posttraumatic stress disorder (PTSD) in 1987 by Francine Shapiro. One area for which the application of EMDR has been explored is Clinical Health Psychology. Recent reviews have outlined encouraging results when exploring the use of this therapy with adults who have acute and chronic physical health issues, however, the available literature within the paediatric population is yet to be reviewed.

Aim: To identify and critically appraise the current evidence examining the efficacy and effectiveness of EMDR, and to ascertain the quality of this evidence, when applied across paediatric clinical health psychology settings.

Methods: The Cochrane Library, OVID Medline, OVID Embase, EBSCO CINAHL, EBSCO PsychINFO and PubMed were searched from 1989 to 5th June 2022 along with the EMDR focused Francine Shapiro Library.

Results: The search identified 15 studies. Nine used small scale research designs (i.e., case studies) to demonstrate the application of EMDR with specific health conditions and medical issues. Five RCTs and an open prospective study were the larger scale studies identified. Overall, the studies were highly heterogeneous, with differences in the content of sessions, duration and number of sessions, and the outcomes measured. Variability in the methodological quality of the studies analysed was found. However, many studies demonstrated encouraging results regarding the applicability, efficacy and effectiveness of EMDR for children and young people (C/YP) in paediatric clinical health psychology settings.

Conclusion: Overall, this review indicates that EMDR appears to be an efficacious, effective and adaptable approach for use in a range of Paediatric Clinical Health Psychology settings, for example, within pain management and for cancer related PTSD symptoms. Although the results of this review are preliminary given the highly heterogeneous nature of the available evidence, the methodological problems identified and the lack of generalisability due to the inclusion of small-scale studies, the studies which were of a higher quality showed compelling evidence for the flexible use of EMDR for C/YP treated within paediatric clinical health psychology settings to alleviate physical and psychological symptoms related to their health condition. Future research with larger samples, which is adequately powered, includes UK participants, and

makes use of comparable outcome measures is required for more conclusive outcomes to be determined and for treatment recommendations to be made for this population.

Keywords: EMDR, paediatric, clinical health psychology, medical trauma

Introduction

EMDR and the Adaptive Information Processing Model (AIP)

The concept of psychological trauma has been defined in many ways since initial conceptualisation of the phenomenon began in the early 19th century. Early trauma research focussed primarily on the experiences of soldiers in World War one and two (Van der Kolk, 2000). In the DSM-IV a traumatic event was defined as when "an individual experiences an event which results in the actual or threatened injury or death of the person exposed to the trauma or in threat to the physical integrity of the person and when the person's emotional response to the traumatic event includes intense fear, helplessness, or horror" (APA, 1994). However, more recent definitions of trauma place greater emphasis on how an individual perceives the negative event, their emotional response, and their ability to cope with this using the external and internal resources available to them (Ruglass & Kendall-Tackett., 2014). It is also now recognised that exposure to traumatic experiences is relatively common and although these experiences can have long-term significant consequences to an individual's mental health and well-being, for many individuals there are a range of protective factors which mediate the impact this has. However, research indicates that approximately 5.6% of people exposed to traumatic experiences world-wide will experience symptoms that have a disruptive impact on their daily functioning and quality of life (Koenen et al., 2017). These individuals may meet specific diagnostic criteria for post-traumatic stress disorder (PTSD) or Complex PTSD, which is more common when exposure to multiple traumatic events occur over time, often during childhood (Ruglass & Kendall-Tackett., 2014). Symptoms of PTSD include re-experiencing, avoidance and numbing, and hyperarousal while Complex PTSD also features disturbances of self-organisation (negative self-concept, emotional dysregulation, and relationship difficulties).

Following its development in 1987 by Francine Shapiro (Shapiro, 1989) as an intervention for post-traumatic stress disorder (PTSD), Eye Movement Desensitisation and Reprocessing therapy (EMDR) has been adapted for many different presentations and psychological difficulties, both distinct from and comorbid with trauma related disorders. There has been much debate about the underlying mechanisms which drive the beneficial changes experienced by many people

treated with EMDR, however the most widely acknowledged, but not unanimously accepted, explanation is the Adaptative Information Processing Model (AIP). The AIP suggests that trauma is stored in brain neural networks. Therefore, psychological difficulties are the result of maladaptive encoding and incomplete processing of traumatic and disturbing adverse life experiences, which are stored in a state-specific form within their own neural networks (Hase et al., 2017). The eight-phases of the EMDR intervention protocol are guided by this model with the rationale that the treatment supports processing of these memories by linking the isolated neural networks with memory networks which hold adaptive information (Shapiro & Laliotis, 2011).

C/YP who experience single or ongoing traumatic experiences have the additional complication of the impact this has on the developing brain. The neurobiological consequences of trauma can contribute to long-term implications across a wide range of developmental domains including increased risk of cognitive, emotional, social, and behavioural difficulties (Bick & Nelson, 2016; Herringa et al., 2013). These individual and societal level concerns highlight a need to continue developing an understanding of the impact that adverse early life experiences have on children and to use this knowledge to increase timely access to effective psychological interventions (De Bellis & Zisk, 2014).

EMDR is endorsed by the National Institute for Health and Care Excellence (NICE) as a treatment for PTSD in adults, however the 2018 guidelines state that there is limited evidence to suggest benefits for PTSD symptoms in children and young people older than seven years, and that EMDR was found to be less clinically effective and cost effective than individual trauma-focused CBT interventions (NICE, 2018). Therefore, the guidance provided was that EMDR should only be considered if children do not respond to or engage with trauma-focused CBT (NICE, 2018). However, this NICE review has been criticised (Barron , 2018). Eight of 11 relevant studies were excluded, resulting in only three EMDR RCTs being considered. In response to the NICE guidance, Barron (2018) conducted a systematic review and meta-analysis incorporating eight reviews and seven RCTs, including those omitted from the NICE review and concluded that EMDR was consistently found to be an efficacious treatment for children with PTSD even when compared with CBT. EMDR is recognised by the World Health Organisation (2013) as an effective therapy for children and adolescents who have experienced traumatic events. The International Society for Traumatic Stress Studies (ISTSS) also strongly recommend EMDR for the treatment of PTSD across the lifespan (Bisson et al., 2019). These debates about EMDR recommendations for C/YP have generated calls for EMDR practitioners and researchers to

conduct more rigorous, high-quality research to influence professional guidelines and inform clinical practice (Barron, 2018; Beer & Bronner, 2018).

Although the majority of EMDR research has centred around PTSD and trauma, emerging evidence indicates that it may be efficacious for people experiencing both distinct and comorbid mental health difficulties e.g., eating disorders (Balbo et al., 2017), depression (Carletto et al., 2021), psychosis (Van der berg et al., 2015) substance use disorders (Perez-Dandieu and Tapia, 2014) and bi-polar disorder (Novo et al., 2014). However, the lack of available RCTs limit reviews of the evidence (Valiente-Gómez et al., 2017).

Clinical Health Psychology and EMDR

The application of EMDR within Clinical Health Psychology is another area for which the evidence base is growing and producing encouraging results. This area of Clinical Psychology specialises in working with individuals, families, and staff teams to support positive change or improved coping strategies in relation to the management of physical health problems and illness. People who experience physical health conditions, particularly those of a chronic nature, are at an increased risk of developing mental health difficulties and experiencing a reduction in quality of life (Naylor et al., 2012). These factors have a bi-directional relationship in that experiencing mental health difficulties can have a detrimental impact on physical health outcomes (Barnett et al., 2012). Research specific to children highlights that between 10 - 30% experience physical health problems or chronic ill-health and have a 10 - 37% higher risk of developing psychological difficulties compared to healthy children (NHS Education for Scotland, 2014).

Research demonstrates that psychological provision should be integrated to enable a more holistic approach to the treatment of physical and mental health co-morbidities, as opposed to being viewed as an 'add on' to medical services, with findings evidencing that integration leads to the largest effect on improved outcomes across both strands of health (Fenton and Stover, 2006; Yohannes et al 2010). Furthermore, the savings from improved physical health and reduced service use may surpass the costs incurred from integrating psychology into medical services and primary care provision (Howard et al, 2010; Moore et al, 2007; Chiles et al, 1999).

Recent studies exploring the links between a variety of distinct physical health conditions and co-morbid psychological difficulties within the adult population indicate an increased recognition of the need for research in this area to improve clinical practice and outcomes to meet the needs of this population. For example, PTSD and Multiple Sclerosis (Carletto et al., 2016), depression and myocardial Infarction (Behnammoghadam et al., 2015), depression and anxiety in patients with spinal cord injuries (Hatefi et al., 2019) and anxiety and depression among patients undergoing haemodialysis (Gerogianni et al., 2019). NICE guidelines have been produced to provide clear, evidence and consensus-based recommendations for health professionals for the detection and management of depression in adults with a chronic physical health problem (NICE, 2009). Further guidelines for other mental health issues commonly experienced by this population, for example, anxiety (Clarke & Currie, 2009) and PTSD (Sripada et al., 2014) are yet to be developed.

Many experiences shared by people with physical health conditions and illness correspond with the concept of 'disturbing adverse life experiences' (e.g., experience of diagnosis, unpleasant symptom management, uncertain illness progression, invasive medical procedures and increased financial pressures) (Luber, 2019). This should be considered in relation to the prevalence of mental health difficulties experienced by individuals in this population. When viewed through the lens of the AIP model this indicates the potential benefit of EMDR for this population irrespective of the type of medical condition or presenting psychological difficulty. The AIP model would suggest that it is the maladaptively processed distressing experiences related to the physical health problems, which may lie out with the traditional parameters of a 'traumatic experience', that are the underlying cause of the psychological difficulties experienced, for which a resolution can be reached using EMDR (Luber, 2019).

Across clinical health psychology settings there are high rates of trauma, stemming from single incident experiences, for example, burn victims (Van Loey and Van Son, 2003) and road traffic accidents (Stallard et al., 2004), but also more complex trauma presentations, for example following long-term illness (Portigliatti Pomeri et al., 2021). Paediatric Medical Traumatic Stress (PMTS) as a distinct issue for C/YP has also been explored, with Beer and Bronner (2010, p.307) describing this as "a constellation of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures and invasive or frightening treatment experiences. Typical PMTS reactions are nightmares, intrusive images, fear reactions, anger outbursts and depression." Given the existing evidence for the efficacy of EMDR to treat PTSD and the prevalence of traumatic experiences for people with medical conditions, there appears to be clear rationale for further exploration of the potential value of EMDR for the treatment of medically related trauma across all medical settings and conditions. Shapiro (2014, p. 75) proposes that "EMDR therapy can allow medical personnel to quickly determine the degree to which distressing experiences are a contributing factor and to efficiently address the

problem through memory processing that can help facilitate both psychological and physical resolution". However, specific consideration when working with the different sub-groups across this population need to be explored further. For example, the barriers and challenges that exist when integrating psychology into medical setting (Koocher & Hoffman, 2020; Thielke, 2011).

Current evidence for adults

A number of relevant reviews have found promising results when investigating the use of EMDR with adults who have specific health conditions such as cancer (Portigliatti Pomeri et al, 2021), chronic pain (Tefft & Jordan, 2016), functional neurological disorders (Cope et al., 2018) and medically unexplained symptoms (van Rood & de Roos, 2009). The first book focusing on the application of EMDR for medically related conditions was released in 2019 and includes scripted protocols for somatic disorders, medically related trauma, cancer, multiple sclerosis, hyperemesis gravidarum, and birth trauma (Luber, 2019). Faretta & Borsato (2016, p. 164) highlight that the key difference for the cancer protocol is that "priority is given to targets of the present and/or recent past that are connected with the experience of illness". EMDR appears to be a flexible and potentially effective option for adults with co-morbid medical conditions and mental health problems. However, reviews of the efficacy of this approach when applied specifically to C/YP across clinical health psychology settings who experience psychological difficulties related to their health condition has not yet been conducted. Due to the lack of evidence currently available within this area, this review is unable to focus on any specific health condition, instead it will identify how EMDR has been applied more broadly within this speciality and evaluate the efficacy, effectiveness, and quality of the existing evidence across all paediatric clinical health psychology settings.

Research Questions:

1) What is the status of the current evidence on the efficacy and effectiveness of EMDR applied across paediatric clinical health psychology populations?

2) What is the quality of this evidence?

Methods

Initial Literature Scoping Exercise

A search of the Prospero archive was conducted in April 2022 and found no listed systematic reviews within this area. A literature scoping search on PsychINFO and PubMed ascertained that

there were sufficient studies to warrant a review of the existing literature. Ten suitable target papers were identified, which indicated the utility of conducting a full review. The scoping searches indicated that there would not be sufficient studies to enable a condition-specific review within the paediatric population as has been conducted within the adult literature, therefore a broader review across the heterogeneous population in the first instance was undertaken.

Search Strategy

The review and reporting of results was guided by The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist (Page et al., 2021).

The initial search strategy was developed for PsychINFO (EBSCOhost) using the PICOS framework and then adapted for the other databases, to incorporate the specific MESH headings and characteristics required (e.g., use of wildcards and syntax rules). The development of the strategy was informed by examining existing EMDR systematic reviews and through consultation with a specialist librarian. Combinations of these terms were developed and tested in May 2022.

Due to the limited literature known to be available investigating the use of EMDR with C/YP, and the even more limited literature specifically within the paediatric clinical health psychology population, it was determined through discussion with the research team and specialist librarian that there was clear rationale for conducting a search with high sensitivity and low precision to ensure all relevant papers within the C/YP population were captured. Specifying the search to include terms specific to paediatrics, which is highly heterogeneous in presenting problems and health conditions, would increase the risk that relevant literature applicable to this population may be missed. Full search strategies for each database are provided in Appendix 1.1, pp 84-86. The screening stage utilised a comprehensive screening tool incorporating clear inclusion and exclusion criteria to enable identification of the literature relevant to the paediatric clinical health psychology population (Appendix 1.2, pp 87-89).

This review included all research papers published from 1989 (publication date of first EMDR study) to 5th June 2022; the date the finalised searches were conducted.

Electronic Databases

On advice of a specialist librarian and through examination of existing EMDR systematic reviews the following databases were selected for systematic searching:

- CINAHL (EBSCO)
- Cochrane Library
- Embase (OVID)
- Medline (OVID)
- Psychinfo (EBSCO)
- PubMed

Other Sources

The Francine Shapiro library, an online collection of articles, and other important papers related to EMDR and AIP was searched using the keywords "Paediatric" and "Pediatric". The references within the Matrix Evidence Tables for Children and Young People (NHS Education for Scotland, 2014) for the sections on Paediatric Psychology, Adherence, Chronic pain, Chronic Fatigue syndrome, Procedural Distress and Preparation for Procedures were manually searched. Neither of these sources identified any further studies for inclusion in the review. Hand search of the included articles references did not identify any additional papers for inclusion.

Screening Stage

Online titles and abstracts were reviewed by the primary reviewer, and duplicates removed using the text-mining abstract screening application Rayyan as recommended by Polanin et al (2019). Articles were examined to determine if they met eligibility criteria. The full text versions of potentially eligible papers were obtained, downloaded, and reviewed by the primary reviewer. Hand searches of relevant review papers were also conducted to identify any eligible studies. Ten percent of results at the title and abstract stage and 50% at the full text screening stage were independently screened by a second reviewer to check reliability.

Inclusion and Exclusion Criteria

The following criteria were used to screen identified articles.

Inclusion criteria:

- Journal article published in a peer reviewed journal.
- Written in English.
- Children and adolescents (aged 18 and below) including those with learning disabilities, care experienced young people and neurodivergent populations.

- Evaluating EMDR in the context of paediatric clinical health psychology, for example, C/YP who have physical illness, chronic health conditions or injuries, which require(d) input in medical settings and would generally meet the criteria for accessing support via a Paediatric Clinical Health Psychology service.
- Methodology Randomised controlled trials, non-randomized studies, quantitative, descriptive studies, mixed methods studies and case studies.
- Articles published from 1987 present.
- Any format (e.g., face to face, remote, phone interventions/individual and group).

Exclusion criteria:

- Review articles, books, book chapters, editorials, and conference papers.
- Commentaries/descriptions, reports, unpublished theses, policy documents.
- No data, preliminary data (i.e., feasibility studies) or qualitative data.

Data Extraction and Synthesis

Data extraction was conducted for each eligible article using a standardised extraction template.

Quality Assessment

Due to the diverse range of literature eligible for inclusion in this review The Crowe Critical Appraisal Tool (CCAT) was selected (Crowe, 2013) (Appendix 1.3, pp 90-91. The CCAT form was used in conjunction with the CCAT User Guide (v1.4) to enhance validity and reliability. When compared with informal appraisal tools it has been found to have increased reported validity and reliability data (Crowe et al., 2011). It was anticipated from the initial scoping search that some of the included studies would be case studies, the CCAT enables each research design to be appraised based on their own merits, not to a 'gold standard'. The tool is comprised of 22 items divided across eight categories: Preliminaries, Introduction, Design, Sampling, Data collection, Ethical matters, Results and Discussion. Studies are scored on each category using a six-point scale (0 – 5), the eight scores are combined to provide a total score (max 40), which is then converted to a total percentage. The corresponding user guide provides comprehensive guidance to the reviewer to allow them to consider how highly to score each category based on several factors for each item. To enhance clarity in this study, it was decided that a total rating of 0-50% would be judged as low, 51-75% moderate, and 76-100% high quality.

Fifty percent of the papers were appraised independently by a second reviewer to check reliability. The second reviewer was a trainee clinical psychologist. Any discrepancies between reviewer ratings were resolved through discussion. No disagreement differed by more than one point when comparing both reviewer's scores across each of the distinct categories outlined above.

Data Analysis and Synthesis

Due to the studies being highly heterogeneous, data were narratively synthesised using recommended guidelines (Popay et al., 2006). This involved developing a preliminary synthesis by organising the findings from the included studies to identify and describe patterns such as the direction and size of effects. Following this, relationships in the data were explored so factors which may explain differences found across studies could be considered. Results were then synthesised and grouped based on four broad categories; Efficacy and Effectiveness, Research designs and quality, Considerations for EMDR use across this population, Outcome measures and comparative opportunities.

Results

An overview of the search results and article selections processes are provided in Figure 1. The search identified a total of 2992 studies which were exported to EndNote. After excluding duplicates (n = 1454) 1527 unique records were systematically assessed using the screening tool developed using the inclusion and exclusion criteria listed above. Hand searches of included article reference lists identified no further studies.

A review of the article abstracts excluded 1439 studies. Full text articles of the remaining 88 records were accessed and reviewed, resulting in an additional 73 studies being excluded. The total number of studies included for data extraction and evaluation was 15. Relevant details of the study characteristics, main findings and quality appraisal ratings can be found in Table 1.

During full text screening it was decided that two RCTs that had eligible participants (under 18 years) but had an upper age limit above 18, would be included as the mean age range of participants in these studies (15.22 and 16.17 years) fell well within the a priori age range of \leq 18 years. To eliminate these studies would also exclude data from participants who met the *a priori* criteria, which given the limited number of large-scale studies currently available would have resulted in a less informative review.

Figure 1. PRISMA Flow diagram (Page et al., 2021)



Author(s), Year, Country	Aim	Design	Sample Characteristics (n, gender, physical and psychosocial difficulties	Intervention content	Relevant Outcome Measures	Main Findings	CCAT Quality Rating %	
Bronner et al. (2009) The Netherlands	To assess the effects of TF-CBT and EMDR for the treatment of acute stress in an adolescent	Case Study	 n = 1 16-year-old female. Spinal cord injury due to a diving accident. Developed flashbacks, distressing memories, anxiety and severe sleeping problems at a PICU. 	1 EMDR session after 4 sessions of TF-CBT	SUDS CRIES-13	No more flashbacks, distressing memories nor difficulties with sleeping. Medication could be reduced. Described EMDR as positive experience. CRIES-13 score 2 days later and at 5 month follow up: reduction in total stress score as well as improvements on all clusters (hyperarousal/Intrusions/Avoi dance).	45%	
Bučan- Varatanović & Šabanović (2021) Croatia	To demonstrate the effects of EMDR therapy in treating adolescents with Type 1 diabetes through a case study.	Case Study	n = 1 15-year-old female Type 1 diabetes Anxiety, panic attacks, socially isolated and depression. Diagnosis of adjustment disorder related to diabetes	16 EMDR sessions with CBT techniques integrated in the initial and final stages.	BYI SUO HbA1c levels.	 The adolescent's memories of traumatic events related to illness and school did not cause physical sensations and subjective problems anymore. BYI showed symptoms of depression, anxiety and anger reduced to within normal range. HbA1c levels significantly reduced. 	27.5%	

Table 1. Overview of Study Characteristics, Main Findings and Quality Ratings

Dautovic et al.	To examine the	Case	n = 5	Standard Protocol for	CRTI	EMDR effectively, safely, and	87.5%
(2016)	potential effects of	Series	Mean age = 12.8, range 9 –	Children (1-3	SCARED-R	quickly reduced symptoms to	
	EMDR in children		16 years.	sessions, mean = 2)	Seizure diaries.	(often) non-clinical levels.	
The	with epilepsy-related		Mean age = 12.8				
Netherlands	posttraumatic stress						
	and/or anxiety		Epilepsy & seizure-related				
	symptoms, using a		post-traumatic stress and/or				
	case series design		anxiety symptoms				
Demirci &	To present the	Case	n = 2	Standard Protocol (5	CTQ	Significant decrease in ADES	70%
Sagaltici	outcome of EMDR	Studies	13-year-old female & 16-	and 4 sessions	ADES	scores, and no recurrence of	
(2021)	treatment in two		year-old male.	respectively).	Seizure	pseudo seizures even at 6	
	adolescents with FND		Functional neurological		frequency	month follow up.	
Turkey			disorder with PNES				
Gauvry et al.	The application of	Case	n =1	EMDR (5 sessions)	CPTS-RI	Reduction in perception of	30%
(2013)	EMDR in a case of	Study	14-year-old male.	Following		pain, which allowed discharge	
	uncontrolled pain		CRPS Type 1.	conventional		from hospital. Medical and	
Argentina	during an			psychological		nursing staff observed a	
	adolescent's		Distress and loss of mobility	treatment (6 sessions		reduction in anxiety level and	
	hospitalization for		associated with neuropathic	of supportive		his reported level of pain and	
	CRPS is presented.		pain.	counselling).		his recovery of mobility.	
Höfel et al.	To assess efficacy of	Open	n = 18	Institution EMDR	MISS	Lasting effect seen over a	75%
(2018)	EMDR for treatment	Prospecti	Mean age: 13.9 years, SD	protocol adapted for	PedsQL	period of 4 months. EMDR	
	of MTX intolerance in	ve Study	2.9 years, range 8 – 17	the treatment of		treatment can potentially	
Germany	JIA patient		years.	MTX intolerance (5		increase quality of life of	
			Juvenile Idiopathic arthritis	sessions).		affected patients and enable	
			with MTX intolerance.			continued MTX treatment.	
Maroufi et al.	To investigate the	RCT	n = 56 (28 males/28	N = 28, 1 60-minute	WBFS	The EMDR group experienced	85%
(2016)	efficacy of Eye		females).	EMDR session		a significant reduction in pain	
	Movement		Mean age = 16.43 years, SD	approx. 2 hours post-		intensity after treatment	
Iran	Desensitization and		1.75, range 12- 18 years.	surgery whilst under		intervention. The results	
	Reprocessing for			influence of pain		suggest that Eye Movement	

	postoperative pain management in adolescents.		Admitted for emergency abdominal surgery (No prior history of surgery or health conditions).	medication. n = 28, control group		Desensitization and Reprocessing may be an effective treatment modality for postoperative pain.	
Meentken et al. (2020) The Netherlands	To investigate the short-term effectiveness of EMDR on posttraumatic stress, anxiety, depression and sleep problems in children with subthreshold PTSD after hospitalisation through an RCT	RCT	n = 74 (49 males/ 25 females) Mean age: 9.6 years, SD 2.9 years, range 4-15 years. Medically related subthreshold PTSD Hospitalised/consultation at an emergency department due to acute injury or illness or at a paediatric cardiology department due to a congenital or acquired heart defect.	n = 37: standard Dutch protocol for children and adolescents or the adapted version for young children. (mean sessions = 3.5) n = 37: CAU	CRTI Clinician administered PTSD scale for Children and Adolescents Dutch CDI 2 BII subscale Dutch SCARED-R Dutch SSR and parallel parent version - child sleep habits Q- aire. Social validity questions were added.	Children in both groups improved significantly over time on all outcomes. However, the EMDR group improved significantly more as to child-reported symptoms of blood-injection- injury (BII) phobia and depression, and child-, and parent- reported sleep problems of the child. There was no superior effect of EMDR compared to CAU on sub-threshold PTSD symptom reduction.	87.5%
Osorio et al. (2018) Mexico	Randomized Controlled Trial on the EMDR Integrative Group Treatment Protocol for Ongoing Traumatic Stress with Adolescents and	RCT	n = 23 (13 male/10 female) Mean age = 16.17, range 13 – 22. Different types of cancer and PTSD symptoms related to their diagnosis and cancer treatment.	n = 11: Intensive EMDR treatment group EMDR- Integrative Group Treatment Protocol for Ongoing Traumatic Stress (EMDR-IGTP-OTS)	PCL-5 HADS	A comparison of the treatment and no-treatment control groups showed significantly greater decreases on the treatment group on symptoms of PTSD, anxiety, and depression.	87.5%

	Young Adults						
	Patients with Cancer			n = 12: No-treatment			
				control group			
				6 sessions			
Rodenburg et	To assess whether	Case	n = 1	EMDR (5 sessions)	IES: Dutch	A significant decrease in	72.5%
al. (2009)	clinical trauma status significantly	Study	18-year-old male.		version	trauma symptoms toward non-clinical status from	
The	diminished to		Generalized epilepsy with			pre-treatment (IES - 52) to	
Netherlands	nonclinical status		tonic-clonic seizures (onset			pre-treatment ($IES = 32$) to	
	posttreatment for an		at age 8) and mild ID.			posttieatment (iES – 18).	
	adolescent with						
	epilepsy and mild						
	intellectual disability						
	using the EMDR						
	children's protocol.						
Shahnavazi,	The effect of EMDR	RCT	n = 60 (26 female/34 male)	n = 30 Intervention	BDI	EMDR resulted in a significant	37.5%
et al. (2016)	on by reprocessing		Mean age = 15.22, SD 1.93,			reduction in the rate of	
	on depression in		range 12 – 19.	n = 30: control		depression in adolescents	
Iran	adolescents with					with thalassemia in the	
	thalassemia		Thalassemia diagnosis.	Mean sessions = 3		intervention group.	
Tofani &	Evaluates and	Case	n = 1	R-TEP (Child had	SUDs	All quantitative measures	52.5%
Wheeler	illustrates the	Series (1	7-year-old male	already received	VOC	(SUD, VOC and IES-R) point to	
(2011)	application of the	out of 3	Chronic potentially lethal	EMDR previously in	IES-R	positive outcomes and to the	
	recent-traumatic	cases	allergic reactions.	relation to their	Readiness for	efficacy of R-TEP.	
Italy	episode protocol (R-	relevant)		medical condition)	treatment or		
	TEP) with three		Sleep difficulties, emotional		the Severity,		
	diverse clients		and behavioural difficulties.	4 sessions	Motivation,		
					Strengths (SMS)		
					index is		

					included in the		
					R-TEP protocol.		
Verkleij et al.	To examine whether	а	n = 1	CBT (18 sessions) and	Individual	Overall physical health and	82.5%
(2017)	cognitive-behavioral	sequentia	16-year-old female	3 EMDR sessions	outcomes:	psychological well-being	
	therapy (CBT) and	I	Difficult to control asthma		asthma	improved substantially.	
The	eye movement	replicate			exacerbations,		
Netherlands	desensitization and	d single	Asthma-specific fear		physical activity,		
	reprocessing (EMDR)	case	induced by disturbed		social activities,		
	focusing on asthma-	experime	memories and distorted		physical		
	specific fear and	ntal	cognitions following		complaints and		
	disturbed memories	design	frightening asthma attacks		worrying.		
	could reduce asthma	with	were driving asthma				
	symptoms and its	multiple	exacerbations.		Standardised		
	burden	measure			measures:		
		ments			The asthma		
					control test		
					PedsQL		
					CBCL		
Wigley et al.	To evaluate the	RCT	n = 49 (24 female/25 male)	1 EMDR session using	NRS	Participants in the NPT+EMDR	85%
(2019)	efficacy of one		Mean age: 13.7 years, SD	original EMDR	SAFA scale:	condition expressed	
	session of EMDR in		2.98 years, range 8 – 18	protocol prior to	Italian version	significantly less anxiety	
Italy	addition to the		years.	procedure (in	(to assess trait	before the medical procedure	
	routine NPT on			conjunction with	anxiety and	than those in the NPT group	
	anxiety		Admitted to hospital,	usual distraction	depression)	(p = .038). The integration of	
			waiting to receive one of the	techniques and		EMDR with NPT was	
			following invasive and	analgesics).		demonstrated to be an	
			painful medical procedures:			effective anxiety prevention	
			arthrocentesis,			technique for paediatric sedo-	
			bronchoscopy, gastroscopy,			analgesia.	
			renal biopsy.				

Wizansky &	The case example	Case	n = 1	dyadic model guiding	Only subjective	Reduction in separation	50%
Sadeh (2021)	provides a structured	Study	5-year-old female.	parent and child	information.	anxiety, was able to be more	
	guide to processing		Patent Ductus Arteriosus	through the EMDR		steadily connected to daily	
Israel	of the early medical		(heart condition), stay in	protocol.		activities. It was now possible	
	trauma and		NICU, heart surgery.			for her to define and process	
	treatment of present			No. of sessions not		present concerns with school,	
	symptoms, with a		Social and developmental	reported		friends, and general	
	suggestion for future		skills "immature", panic and			functioning, with the	
	research.		anger at separation,			Standard EMDR Protocol.	
			difficulty relating				
			appropriately to other				
			children, reacted with panic				
			or an emotional shutdown				
			to unexpected schedule				
			changes.				

Abbreviations: ADES = The Adolescent Dissociative Experiences Scale, BYI = Beck Youth Inventory, CAU = Care as usual, CBCL = Child Behaviour Checklist, CPTS-RI = Child Post Traumatic Stress Reaction Index , *CBT* = *Cognitive Behavioural Therapy, CDI 2* = *Children's Depression Inventory, CRIES-13* = *Children's Revision Impact of Events Scale, CRTI* = *The Children's Responses to Trauma Inventory CTQ* = *The Childhood Trauma Questionnaire, EMDR* = *Eye-Movement Densitisation and Reprocessing Therapy, FND* = *Functional Neurological Disorder*, HADS = The Hospital Anxiety and Depression Scale, *ID* = *Intellectual Disability*, IES = Impact of Event Scale, IES-R = The impact of Event Scale-Revised, *MISS* = *Methotrexate Intolerance Severity Score,* PCL-5 = Posttraumatic Stress Disorder Checklist for DSM-5, *PedsQL* = *Pediatric Quality of Life Inventory, PTSD* = *Post-Traumatic Stress Disorder, RCT* = *Randomised controlled trails, R-TEP* = *Recent Traumatic Episode Protocol, SUDS* = *Subjective Units of Distress, SCARED-R* = *Screen for Child Anxiety Related Emotional Disorders, SSR* = sleep self-report, NRS = The numeric rating scale, SAFA = Self-Administrated Psychiatric Scales for Children and Adolescent, SUO = Stress Coping Scale for Children and Adolescents, TF-CBT = Trauma-focussed CBT, VOC = The validity of cognitive Scale, WBFS = Wong-Baker FACES Pain Rating Scale,

Participant characteristics

A total of 294 participants were included in the 15 studies. 141 (48%) participants were female. The largest sample size was 74 (Meentken et al., 2020) and the smallest sample size of one was found in seven of the studies. Age of participants ranged from 5 to 22 years old.

The studies included participants experiencing a range of health conditions and medical issues, some of which were chronic in nature and some of which were acute presentations: spinal cord injury, Type 1 diabetes, epilepsy (n=2), functional neurological disorder (FND), chronic regional pain syndrome (CRPS), juvenile idiopathic arthritis, requiring emergency abdominal surgery, acute injury/illness, heart conditions, cancer, thalassemia, severe allergies, asthma, and requiring invasive/painful medical procedure. The co-morbid psychosocial difficulties included anxiety, sleep disturbance, panic attacks, medication intolerance, medically related subthreshold PTSD, PTSD symptoms, emotional and behavioural difficulties, and social and development difficulties.

Characteristics of studies

Five RCTs were identified, six case studies (five: n = 1, one: n = 2), two case series (one including 5/5 relevant cases, and one including 1/3 relevant cases), one open prospective study, and one sequential replicated single case experimental design.

The majority of the studies (n = 13) investigated the efficacy of EMDR on existing symptoms or established health related difficulties, one study investigated the effects of EMDR on reducing anxiety immediately prior to receiving medical procedures (Wigley at al., 2019) and another study investigated the effects of EMDR on the management of post-operative pain immediately following emergency abdominal surgery (Maroufi et al., 2016).

EMDR intervention characteristics

Overall, the EMDR protocols delivered and the extent to which they were adapted was considerably heterogenous. Although most studies provided detailed information about the content of the sessions (n = 12) to enable replication, three studies did not report the specific protocol used and two did not clarify whether it was the child/adolescent protocol used. The remaining ten studies stated use of following: the standard protocol (n = 1), an adapted one session version of the standard protocol (n = 1), the standard protocol for children and adolescents (n = 3) either the original version or the Dutch version (n = 2), a dyadic

psychotherapeutic treatment model anchored in the EMDR protocol and the attachment relationship (n = 1), the EMDR-Integrative Group Treatment Protocol for Traumatic Stress (n = 1) or the Recent Traumatic Episode Protocol (n =1). Although EMDR follows an eight-phase approach there is not a pre-determined number of sessions prescribed, as reduction in distress measured by subjective units of distress (SUDs) and an increase in validity of cognition (VoC) indicates when memory processing is complete. Only nine of the studies stated this as their indicator for the number of sessions delivered. The number of EMDR sessions delivered ranged from one (n=3) to 16 with most studies (n = 8) consisting of on average between three and five sessions. The two studies investigating the effect of EMDR on pre-operative anxiety and post-operative pain incorporated a single session procedure as part of their design (Wigley et al., 2019; Maroufi et al., 2016). One study did not report how many sessions were delivered (Wizasnky and Sadeh, 2021). Gauvry et al (2013) discussed that their study was ended prematurely, stating that they would have continued to deliver further sessions but were unable to due to the child being unexpectedly discharged.

Session duration ranged from 30 minutes to 120 minutes, with the majority (n = 4) lasting 60 minutes. Nine studies consisted of only EMDR (Including 5/6 of the larger scale studies), the remaining studies used EMDR in conjunction with other modalities, for example, CBT (n = 3), distraction techniques (n = 1), following counselling (n = 1) and within a dyadic, attachment focused model (n = 1), which makes it difficult to interpret the efficacy or effectiveness of EMDR as a protocolised, standalone intervention for several of the included studies.

With the exception of one study (Osorio et al., 2018), which delivered the EMDR-IGPT-OTS, all the interventions were delivered using either an individual approach (n = 13) or with a family member included throughout (Wizansky and Sadeh, 2021) (n = 1). Most of the studies delivered the EMDR sessions in a medical setting (e.g., hospital, wards, private clinic room, examination room and PICU).

Information about the credentials and role of those delivering the intervention was provided by all studies, this included psychologists, expert psychotherapist, licensed EMDR clinicians and an accredited practitioner.

The majority of the studies (n = 5) were conducted in the Netherlands, Iran (n = 2) and Italy (n = 2). The remaining six studies were conducted in Croatia, Turkey, Argentina, Germany, Mexico and Israel.

Outcome measures

There was a large range of outcome measures utilised, which is not unexpected given the range of conditions and psychosocial difficulties that the included participants experienced. However, even for the studies which were investigating the same psychosocial difficulties (e.g., anxiety or PTSD symptoms), there was minimal overlap in the outcome measures used, to enable comparison across studies. In addition to using psychometric measures, five studies also reported objective and/or subjective clinical measures such as HbA1c levels, seizure frequency, pain intensity and asthma control. In addition to condition specific outcome measures, quality of life was measured in two of the studies. This may be a useful comparable measure for inclusion across the variety of conditions and symptoms experienced by this population.

Follow up measures to determine whether the effects found were maintained following intervention were incorporated into nine of the studies and varied in timeframe from 2 weeks to 8 months.

Efficacy and Effectiveness

Small scale studies

All of the included studies using small scale designs (n = 9) e.g., case studies and case series with sample sizes less than 10, reported positive results, with regards to the effectiveness of EMDR therapy for the reduction in physical and psychosocial symptoms. However as mentioned, four of these studies incorporated additional therapeutic elements in conjunction with EMDR. Three of the studies utilised statistical analysis (e.g., Reliability of change index and a change point model) to enhance the validity of the research findings.

Larger scale designs

All of the included studies using larger scale design (n = 5) e.g., RCTs, and the open prospective study, with sample sizes greater than 10, reported efficacious results. Specific details of the study results are outlined below. It should be noted that in five of the studies sample size calculations were not outlined to indicate statistical power.

Maroufi et al (2016) found in their RCT of 56 adolescents investigating the efficacy of EMDR for postoperative pain management that the EMDR group experienced a significant reduction in pain intensity after treatment intervention when compared to the control group (P < 0.001, Z = 3.41).

An RCT of 74 children investigating the short-term effectiveness of EMDR on posttraumatic stress, anxiety, depression, and sleep problems in children with subthreshold PTSD after hospitalisation (Meentken et al., 2020) found that children in both groups improved significantly over time on all outcomes, with no superior effect found on sub-threshold PTSD symptom reduction when comparing EMDR to CAU, which was the primary outcome being investigated. However, the EMDR group improved significantly with regards to child-reported symptoms of blood-injection-injury (BII) phobia (p = .034) and depression (p = .037), and child-, and parent-reported sleep problems of the child (p = .003).

When investigating the effect of EMDR on depression in an RCT of 60 adolescents with thalassemia, Shahnavazi, et al. (2016) found that EMDR resulted in a significant reduction in the rate of depression in adolescents with thalassemia in the intervention group. However, this study was assigned a low-quality assessment rating (37.5%).

Wigley et al. (2019) investigated the efficacy of one session of EMDR in addition to the routine non-pharmacological treatment (NPT) on anxiety following invasive and painful medical procedures in an RCT of 49 C/YP. They found that C/YP in the NPT+EMDR condition expressed significantly less anxiety before the medical procedure than those in the NPT group (p = .038).

An RCT investigating the efficacy of EMDR Integrative Group Treatment Protocol for Ongoing Traumatic Stress with 23 adolescents and young adults with Cancer (Osorio et al., 2018) found that when compared to the control group, the treatment group showed significantly greater reduction on symptoms of PTSD, anxiety, and depression, with large effect sizes reported, and these changes were maintained at 90 day follow up.

Hofel et al. (2018) used an open prospective control study of 18 patients to investigate the efficacy of EMDR for treatment of MTX intolerance in JIA patients. A significant improvement in MTX intolerance symptoms and quality of life immediately following treatment was found. However, a significant number of participants showed symptoms of MTX intolerance at four month follow up, indicating that repeat treatment may be required.

Table 1	. 1.	CAAT	Quality	Ratings
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Study	Preliminaries	Introduction	Design	Sampling	Data Collection	Ethical Matters	Results	Discussion	Total
Bronner et al. (2009)	3	3	3	2	2	0	2	3	18 (45%)
Bučan- Varatanovi (2021)	1	3	2	1	2	0	1	1	11 (27.5%)
Dautovic et al. (2016)	5	5	4	4	4	5	4	4	35 (87.5%)
Demirci & Sagaltici (2021)	4	5	5	3	2	3	2	2	28 (70%)
Gauvry et al. (2013)	2	4	1	1	1	0	1	2	12 (30%)
Höfel et al. (2018)*	4	4	4	3	3	4	4	4	30 (75%)
Maroufi et al. (2016)*	4	5	4	3	4	5	5	4	34 (85%)
Meentken et al. (2020)*	5	4	4	4	5	5	4	5	35 (87.5%)
Osorio et al. (2018)*	5	4	4	4	5	5	5	4	35 (87.5%)
Rodenburg et al. (2009)	5	5	4	3	3	1	4	4	29 (72.5%)
Shahnavazi, et al. (2016)*	2	3	2	2	2	0	3	1	15 (37.5%)
Tofani & Wheeler (2011)	3	4	5	3	2	0	1	3	21 (52.5%)
Verkleij et al. (2017	5	5	4	4	3	3	5	4	33 (82.5%)
Wigley et al. (2019)*	4	5	4	3	4	4	4	3	34 (85%)
Wizansky & Sadeh. (2021)	4	5	2	2	1	0	1	2	20 (50%)

The table has been colour coded (0-1: red, 2-3: amber, 4-5 (green) to indicate the strength of the ratings given and allow visual comparison of

categories across studies. For the total score the key is low quality = red, moderate quality = amber, High quality = green.

* RCT or open prospective study.

Methodological Quality

As mentioned, the CCAT is scored on a 6-point scale (0-5) for eight categories. The category scores are combined to provide a total score which is then converted to an overall percentage. As a limitation of this tool is that it is dependent on the appraiser's scoring, and that this can lead to the total score being the main focus without adequate emphasis being placed within the individual categories, all category ratings are reported in table 2 along with the total score. Eight papers scored between 72.5 and 90% indicating high quality, two papers scored between 52.5% and 70% indicating moderate quality and five papers scored between 27.5 and 50% indicating low quality and caution should be applied when interpreting these findings.

For the larger scale studies, except for the aforementioned thalassemia study, all of the studies were assigned a high-quality rating score. The main methodological limitations included lack of transparency around calculation of sample size and reporting of power, and not making adequate attempts to incorporate blinding where possible (e.g., during obtaining of outcome measures). For the RCT investigating the efficacy of EMDR on post-operative pain (Wigley et al., 2019) a concerning ethical issue in relation to participants being under the influence of analgesics when data was obtained was noted.

For the smaller scale research studies, there was a wider range in the quality ratings assigned with four rated low, two rated medium and three rated high. The main methodological limitations included the lack of information provided about the research design rationale, the selection of measures, how and why the particular participants were recruited, and inadequate reporting of results.

Six of the studies scored 0 or 1 for ethical matters as there was a concerning lack of information pertaining to participant consent/anonymity, funding or conflicts of interest, and the researcher's relationships with participants. This was found across different experimental designs; one RCT, four case studies and a case series.

Main Findings

A definitive answer about the efficacy of EMDR could not be determined due to the heterogeneity of the data, the scarcity of large-scale research designs and the low methodological quality observed across several of the included studies. However, the available high-quality evidence from the included large-scale studies does indicate that EMDR is efficacious for alleviating physical and psychological symptoms within this population. The high-quality smaller scale studies also indicate the potential utility and efficacy of EMDR across a

range of paediatric medical conditions. Furthermore, the review provides clinicians with relevant information about session content, considerations for delivering EMDR within paediatric clinical health psychology settings and outlines opportunities for contributing to the evidence base by engaging in clinically relevant research.

Discussion

Existing evidence has indicated that EMDR therapy is a promising option for adults recruited in clinical health psychology settings (Luber, 2019; Shapiro, 2014). This review represents the first attempt to summarise the evidence on the efficacy and effectiveness of EMDR for C/YP across the breadth of the clinical health psychology population. Psychological distress and mental health difficulties are a common experience amongst people experiencing physical health issues. The heterogeneity in symptoms experienced by individuals within and across conditions indicate the potential for the utility of EMDR, guided by the AIP model. Providing the opportunity to adaptively process distressing medically related experiences to alleviate psychological symptoms, is not only beneficial for reducing risk of mental health difficulties, but is likely to also have a positive impact on physical health outcomes (Hernandez et al., 2018).

Efficacy and Effectiveness

Across the high-quality evidence within the larger scale studies EMDR was found to be efficacious for alleviating physical and psychological symptoms across all studies, for example, for pain, PTSD symptoms, and anxiety, with significant effects revealed when compared with control groups. These results correspond with data exploring EMDR with adults in medical settings. These results were found consistently regardless of condition or the content/duration of the EMDR provided i.e., a single session for the management of postoperative pain management in adolescents (Maroufi et al., 2016), a single session for the management of preoperative anxiety prior to painful medical procedures in children (Wigley et al., 2019), group treatment for reducing PTSD symptoms, anxiety and depression for adolescents with cancer (Osorio et al., 2018), and five sessions of a protocol adapted for the treatment of MTX intolerance for reducing intolerance symptoms and improving quality of life for children with JIA (Hofel et al., 2018). However, for the remaining high-quality RCT (Meentken et al., 2020), the authors found that although children in the EMDR group improved significantly with regards to child-reported symptoms of blood-injection-injury (BII) phobia and depression, and child-, and parent- reported sleep problems of the child, there was no superior effect of EMDR compared to CAU on sub-threshold PTSD symptom reduction as both groups reported significant improvement over time on all outcomes. For two of the larger scale studies the

sample sizes were relatively small (Osorio et al., 2018 (n = 23) and Hofel et al., 2018 (n = 18)), which was not fully acknowledged by the authors, and therefore the studies may not have been adequately powered.

Across the high-quality evidence within the smaller scale research, EMDR was found to be effective for alleviating physical and psychological symptoms across all studies. For the three studies which utilised statistical measures to demonstrate change (e.g., Reliability of change index and a change point model), all found significant effects. For the studies not incorporating any significance testing of change the results need to be viewed with even greater caution, however improved outcomes when comparing pre and post measures were reported regardless of condition, variation in protocol used or number of sessions delivered. As five of these studies used EMDR in conjunction with other therapeutic approaches it is not possible to determine the effectiveness of EMDR as a stand-alone intervention across these studies. Given the lack of available evidence within this area, it may be beneficial for EMDR to be investigated in isolation initially before being adapted for use with other methods.

Research Design and Quality

Given the scarcity of research it is not unexpected that a number of the studies found in this review are case studies and case series, which significantly affects the generalisability and robustness of the results. However, many of these studies clearly stated that their design choice was to demonstrate the application of EMDR for a particular health problem prior to conducting larger scale research. The high standard of thorough methodological consideration and transparent reporting across a number of these studies demonstrates the valuable evidence these high-quality, small-scale studies can provide. For example, by offering relevant clinical information for the application of EMDR within specific health conditions, by highlighting possible adaptations and considerations required to guide clinical practice and demonstrating how clinicians can report their own clinical outcomes in a meaningful way to contribute to the evidence base. Arguably the data from these studies provides more valuable evidence than one of the included RCTs (Shahnavazi, et al., 2016), which had a much larger sample, but was rated low quality due to the omission of key details about the study design and data collection, minimal information being provided to enable replication of the study, the concerning lack of ethical considerations and a lack of reporting on any power analysis undertaken. Repeated contributions of high-quality, standardised reporting of small-scale research across the same population can contribute to clinical generalisability as the same phenomenon can be repeatedly investigated in new patients.

As mentioned three of the studies small scale studies utilised statistical measures to demonstrate change (e.g., Reliability of change index and a change point model). However, two studies spoke about demonstrating 'significant' changes using only comparison on pre and post measures without the required statistical analysis to provide the evidence for this. Although large scale research, for example, RCTs are required to investigate efficacy and to enable generalisability, this requires resources, time, funding, and access to large numbers of participants, which may not always be available to researchers in clinical settings (Sanson-Fisher et al., 2007). Where possible using available resources to report clinical findings of smaller scale research in the most robust way possible will support the continued growth of the evidence base. The poor quality and risk of bias evident in several of the studies corresponds with the concerns highlighted in the previously mentioned NICE guidance about the methodological rigor and bias of EMDR empirical studies which contributes to the ongoing difficulties with demonstrating the efficacy of EMDR with children and adolescents. The findings of this review add further emphasis to Beer and Bronner's (2018) and Barron's (2018) recommendation for more rigorous, high-quality research to be conducted to strengthen the EMDR evidence base for C/YP.

Considerations for use of EMDR across this population

The heterogeneity found in content, length, and duration of EMDR is expected given the range of medical issues across the studies, however the SUDs and VoC measures should guide the process and determine the number of sessions required to ensure all linked memories are processed. As many people experiencing health conditions are exposed to prolonged and repeated incidences of disturbing adverse life experiences, for example, repeated medical investigation and long-term treatment regimes, the utility of specific protocols such as the 'ongoing traumatic stress protocol', 'cancer protocol' and the 'phobia protocol' may be particularly relevant to this group. However, given that high rates of PTSD are recognised within this population due to medically related trauma, the standard protocol also appears to be an effective option as evidenced by several studies in this review. All studies referred to disturbing adverse life events which were causing psychosocial difficulties in addition to the physical health issues experienced. When considering the AIP model thought to underpin the mechanism of change facilitated by EMDR, the improvement in these difficulties found in the studies indicates the utility of this approach across this heterogeneous population, which has already been evidenced in the promising efficacy outcomes across a number of the condition specific reviews previously mentioned within the adult literature. The consistently observed positive outcomes

across the broad range of physical and psychosocial difficulties evident across the varied studies supports the proposition that processing maladaptively stored information following adverse life events (historic, recent, or current) related to a physical health condition can be achieved within a potentially short time frame using EMDR. Across these studies this opportunity to adaptively process information resulted in improvements in psychosocial difficulties related to chronic and acute physical health difficulties, which may subsequently enable C/YP and their families to focus on the practical and current medical issues at hand, without the added stressors of associated psychosocial difficulties compounding the physical health problem.

There was a distinct lack of information across the studies pertaining to family involvement in the EMDR intervention, and the decisions related to this, despite many of the self-report measures being completed by parents/carers who were present for their C/YP's medical intervention. Evidence for children with PTSD indicates involving parents in the intervention may lead to improved outcomes (Cobham et al., 2012), however research exploring this specifically with EMDR is required to provide guidance on the practical considerations and benefits of incorporating a more systemic approach to the delivery of EMDR in paediatric settings. In recognition of evidence indicating high rates of parental PTSD as a direct result of caring for a child with physical health issues (Pinquart, 2019) and the subsequent impact this can have on the child and family unit (Landolt et al., 2012) research has started exploring the utility of EMDR for parents of paediatric patients (Conijn et al., 2021). Consideration of parental PTSD and the benefits of ensuring parents have access to appropriate psychological support or in-tandem EMDR intervention should be considered by clinicians working with this population.

Additional considerations when working with this population pertain to navigating the potential disruptions and timings related to the C/YP's medical treatment. Integration of psychology into medical settings should include consideration around having access to quiet, confidential clinic spaces away from busy hospital environments to facilitate timely and accessible support. As evidenced in the included Gauvry et al (2013) study, disruption to EMDR treatment needs to be considered carefully in terms of the promotion of multi-disciplinary teams working to facilitate optimal communication across specialties to prevent circumstances like unanticipated discharge by medical colleagues preventing completion of treatment.

Assessment measures and comparative opportunities

The measures utilised across the studies were highly heterogenous, but appropriate, validated, and reliable. This review indicates that EMDR can be adapted and used flexibly across a range

of different physical and psychological difficulties. Given the complex and variable nature of health conditions and psychosocial difficulties which are experienced within this group, using additional outcome measures which are applicable to all may be beneficial for allowing comparison across a range of studies. Including a quality-of-life measure as standard, for which there are paediatric specific tools available (e.g., The Pediatric Quality of Life Inventory (PedsQL) (Varni et al., 2001)), would allow comparison across studies. This may also be beneficial given the complexity of individual cases and experiences which result in varied difficulties in samples with the same health condition. Other efficacy variables could also be utilised to enable the synthesis of outcome data across studies, including, treatment adherence, symptom management and recovery time. Given that the same quantitative, subjective measures are used through-out any EMDR protocol in the form of SUDs, if these are routinely reported as outcome measures in all EMDR studies, this could also enable useful comparison opportunities across studies.

Methodological Limitations

Included studies were heterogeneous in nature and varied in relation to study designs, participant characteristics, intervention characteristics, outcome measures and interpretation of findings, which made interpretation of overall comparisons difficult. As discussed, several methodological problems were identified across the included studies, for example, small sample sizes, not reporting sample size calculations to indicate statistical power, investigating the efficacy of EMDR whilst it was used in conjunction with other modalities and a lack of consideration around the comparative potential of selected outcome measures, which included not transparently reporting SUDs ratings or incorporating this into the research design in relation to intervention duration considerations.

Although valuable for demonstrating the application of EMDR to explore the potential utility of this therapy for specific conditions, many of the included studies consisted of small samples, meaning any findings from these studies are not generalisable and have to be treated with considerable caution. As discussed, a standardised approach to the methodology of small-scale studies including incorporating statistical analysis where possible to meaningfully evaluate efficacy or effectiveness may enhance the evidence base.

As none of the studies were conducted in the UK the evidence has limited generalisability when considering the differences in health care systems across countries. Further research incorporating UK patients and services that support generalisation of findings across NHS health boards is required. As highlighted by the NICE guidelines, and recent studies (Barron, 2018; Dominguez and Lee, 2019) the lack of robust, methodologically sound, and rigorous empirical data is problematic for creating confidence in the EMDR evidence-base. However, the high-quality evidence that exists indicates this may be a cost-effective, flexible, relatively brief intervention which can be suitable for treatment of the psychological components associated with health conditions in C/YP.

Strengths

This is the first review to bring together and evaluate EMDR studies relevant to paediatric clinical health psychology clinicians to inform professionals using EMDR with this population, and to suggest practical ways in which they can contribute to the evidence base. It has demonstrated the adaptability of EMDR across this population and suggested specific considerations which need to be accounted for when designing future research studies and when working clinically with this population.

Clinical Implications and Recommendations for Future Research

Larger, more robust studies are required to provide more conclusive recommendations and clinical guidance regarding the efficacy of EMDR in a range of conditions commonly seen within paediatric clinical health psychology populations. As there appears to be a lack of larger scale research being conducted within this area, high-quality small-scale research studies can also provide a valuable contribution to the evidence base in the interim. These can be conducted in isolation by clinicians already utilising this approach. By using consistent standardised measures which are comparable across this heterogenous population, for example, quality of life, would enable convergence of the data by facilitating comparisons. In the first instance there may be merit in directing effort and resources to explore the use of EMDR with specific conditions or health issues which are known to lead to psychological difficulties for a high number of C/YP (e.g., type 1 diabetes (Butwicka et al., 2015) or that have already produced promising results, for example, the conditions EMDR was found to be efficacious or effective with in this review, before adapting the key evidence and clinical learning points for use in other medical conditions.

For C/YP experiencing chronic health conditions or requiring medical intervention it is essential that they have access to effective psychological intervention to mitigate the potential harmful impact this may have on their mental health and to optimise physical health and quality of life outcomes. Due to medical advances more children are now surviving life threatening conditions but are living with chronic health issues which have a significant impact on their lives. Therefore, it Is likely that the demand for effective psychological support will continue to increase (NHS education for Scotland, 2014). Medical staff working in paediatrics should be provided training
and incorporate use of psychometric screening measures in their practice to enable early recognition of C/YP who are already experiencing or may be at an increased risk of experiencing co-morbid mental health difficulties to enable timely access to psychological support.

Conclusion

Overall, this review indicates that EMDR appears to be an effective and adaptable approach for use across a range of Paediatric Clinical Health Psychology settings. Although the results of this review need to be treated with caution given the highly heterogeneous nature of the available evidence, the methodological problems identified and the lack of generalisability due to the inclusion of small-scale studies, the studies which were of a higher quality showed compelling evidence for the flexible use of EMDR for C/YP treated within paediatric clinical health psychology settings to alleviate physical and psychological symptoms related to their health condition. Future research which is adequately powered, includes UK participants, and makes use of comparable outcome measures is required for more conclusive outcomes to be determined and for treatment recommendations to be made for this population.

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Chapter Two: Major Research Project

Exploring the Experiences of Children and Young People Accessing EMDR: an Interpretative Phenomenological Analysis

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Plain Language Summary

Background: Most adults who experience mental health difficulties began experiencing these problems in childhood, which makes it important to address these problems as early as possible. Eye Movement desensitisation and Reprocessing Therapy (EMDR) was first used to help people who are affected by traumatic experiences, but it is now also used for other mental health problems. Current research has shown that EMDR can be effective for children and young people. However, not enough research has been carried out to understand what children and young people think about EMDR.

Aims: The current study aimed to find out what children and young people think about EMDR, which may help the clinicians using this type of therapy to understand the experience better from the children and young people's point of view, including the parts they found the most important. This understanding could help clinicians find the most useful ways of using EMDR, which may improve outcomes for people.

Methods: Four participants took part in this study. Informed consent was taken prior to carrying out semi-structured interviews. Interviews were typed up and analysed in line with the Interpretive Phenomenological Analysis (IPA) approach, which analyses the content of the interviews to understand how people make sense of their experiences.

Results: Four main themes were identified from the interviews with participants. These were the importance of the clinician's role, reflections on engaging with the initial phases of EMDR, meeting individuals needs and the beneficial aspects of EMDR.

Conclusion: This study offers understanding from the point of view of children and young people who have benefitted from accessing EMDR within a CAMHS setting. The findings show the value that children and young people place on the therapeutic relationship, the importance of offering choice and flexibility to ensure individual needs are met, that the perceived benefits take different forms and that steps should be taken during the initial phases to emphasise the importance of the preparation stage and to support children and young people to figure out the oddness of the approach. Ideas for services and professionals are outlined. Further research exploring the full range of experiences across larger samples, including those in a younger age group is recommended.

Abstract

Background: Up to 17% of children and young people (C/YP) in the UK are estimated to experience mental health difficulties (NHS Digital, 2020). For most adults experiencing mental health difficulties, onset began in childhood, highlighting the importance of timely access to effective treatment options (Kessler et al., 2005). Eye movement desensitisation and reprocessing therapy (EMDR) was initially developed for the treatment of PTSD (Shapiro, 2002), but it is now used for a range of mental health issues (Valiente-Gómez et al., 2017). At present, the efficacy of this approach with C/YP is promising (Barron, 2018), but limited research has been conducted to understand how C/YP experience EMDR.

Aims: The current study aimed to explore the lived experiences of C/YP who have accessed EMDR in a Child and Adolescent Mental Health service (CAMHS) setting. Specifically, it aims to develop a richer understanding of the elements which C/YP perceive as most impactful, which may inform clinician's approach and delivery.

Method: Four participants were recruited for this study. Informed consent was obtained prior to conducting semi-structured interviews, which were transcribed and analysed in line with the Interpretive Phenomenological Analysis (IPA) approach.

Results: Four group experiential themes were formed from the 13 group-level sub-themes which emerged from the participants' accounts. These were the importance of the clinician's role, reflections on engaging with the initial phases of the EMDR process, meeting individual needs and the beneficial aspects of EMDR.

Conclusion: This study offers insight into the perspective of C/YP who have benefitted from engaging with EMDR within a CAMHS setting. The findings indicate the value C/YP place on the therapeutic relationship, the importance of offering choice and flexibility to ensure individual needs are met, that the perceived benefits take different forms and that steps should be taken during the initial phases to clarify the importance of preparation and to support C/YP to navigate the perceived peculiarity of the approach. Clinical implications and service delivery considerations are outlined. Further research exploring the full range of experiences across larger samples and different populations is recommended.

Keywords: EMDR, CAMHS, IPA

Introduction

Trauma and PTSD

Post-traumatic stress disorder (PTSD) was first conceptualised as a clinical diagnosis in 1980 after inclusion in the DSM-III. This followed on from veterans increasingly being diagnosed with 'post-Vietnam syndrome' in the 1970's (Crocq & Crocq, 2022). PTSD symptoms were originally considered under the terminology 'shell shock' during World War one in response to the high rates of soldiers experiencing symptoms such as nightmares, confusion and tremors after being in life-threatening situations, with no medical explanation identified (Jones, 2012). These symptoms were included in the DSM-I in the 1950's under the heading 'gross stress reactions, before being removed from the DSM-II. Considerable research has been conducted since this time, which has led to far greater understanding about the short-term and long-term impact traumatic experiences can have, and the wide-ranging events and experiences that an individual may perceive as traumatic, including during childhood (Horwitz, 2018). The diagnostic criteria for both PTSD and complex PTSD have been reviewed and revised, with many potential treatment options being identified, for example, trauma focussed cognitive behavioural therapy (CBT), Eye Movement Desensitisation and Reprocessing therapy (EMDR) and pharmacological options (Van der Kolk et al., 2014). Most individuals who experience a traumatic event do not develop PTSD, but for those that do, symptoms include nightmares, flashbacks, anxiety, cognitive changes, and disruptive avoidance patterns (Lancaster et al., 2016).

<u>EMDR</u>

EMDR was developed by Francine Shapiro in 1987 and was first used as an intervention for veterans experiencing Post-Traumatic Stress Disorder (PTSD) (Shapiro, 1989). Following Shapiro's discovery of the benefits of utilising rhythmic bilateral movements for processing traumatic memories, advancements in the procedural techniques and clinical applications of this approach have continued. EMDR offers an eight-phase treatment procedure guided by the Adaptive Information Processing (AIP) model to process dysfunctionally stored memories from traumatic and disturbing adverse life experiences to reach a useful and adaptive resolution (Shapiro, 2018). The eight phases of EMDR consists of: history taking, preparation, assessment, desensitisation, installation, body scan, closure, and re-evaluation. As the name suggests, the original form of bi-lateral (i.e., side to side) stimulation used to facilitate information processing was rhythmic horizontal movement of the therapist's fingers. These movements are visually tracked by the client as they simultaneously focus on their internal experience (e.g., thoughts,

emotions, sensations). This promotes dual attention to be maintained on both external movements and internal experiences. However, the bi-lateral stimuli options have since been adapted and expanded to include a range of alternative approaches that incorporate different senses and enable a diverse range of client needs and preferences to be met (Shapiro, 2002; 2018). This includes alternative visual bi-lateral stimulation approaches (e.g., using light bars), tactile bi-lateral stimulation (e.g., self-administered butterfly taps or the client or therapist tapping the client's knees) and auditory bi-lateral stimulation (e.g., tones played alternately through headphones).

Evidence for the efficacy of EMDR for adults with PTSD has been well established, for example, a meta-analysis incorporating 26 randomised control trials (RCTs) found that EMDR significantly reduces symptoms of PTSD, depression, anxiety, and subjective distress for adults with PTSD (Chen et al., 2014). The World Health Organisation (WHO, 2013) recommends EMDR for the treatment of PTSD. However, Dominguez and Lee (2019) outline that recent international guidelines produced by the National Institute for Health Care Excellence (NICE, 2018), the International Society for Traumatic Stress Studies (ISTSS, 2018), and the American Psychological Association (APA, 2017) all varied in the extent to which they recommend EMDR for the treatment of PTSD. They highlighted the need for further research investigating the use of EMDR with waitlist control designs and for researchers to ensure the inclusion of their studies in future reviews by focusing on research quality and minimising bias (Dominguez & Lee, 2019).

In addition to PTSD, the efficacy of EMDR for adults with a range of distinct and co-morbid mental health difficulties has been demonstrated (Valiente-Gómez et al., 2017) including depression, somatic disorders and panic disorders (Shapiro, 2017). Furthermore, a variety of protocols and disorder specific guidelines have been adapted from the basic EMDR trauma protocol developed by Shapiro (Shapiro, 1995); for example, the phobia protocol (De Jongh, 2015), the protocol for the treatment of depressive disorder (Hofmann et al., 2016) and the chronic pain protocol (Grant, 2000).

Quantitative Evidence for EMDR in C/YP

For most adults experiencing mental health difficulties, onset began in childhood, highlighting the importance of timely access to effective treatment options (Kessler et al., 2005). Up to 17% of C/YP in the UK are estimated to experience mental health difficulties (NHS Digital, 2020). The detrimental impact of untreated childhood trauma and mental health difficulties is widely recognised as being far reaching on both an individual and societal level (McGorry & Mei, 2018).

Like other therapies, EMDR was developed for adults before being adapted for use with C/YP, therefore, empirical research addressing effectiveness within this population is less developed (Beer, 2018), including when addressing trauma symptoms (Gillies et al., 2016). However, results from a meta-analysis of eight RCTs found EMDR to be an effective approach for the treatment of PTSD and anxiety symptoms in youth (Moreno-Alcázar et al., 2017). Additionally, a recent meta-analysis of 30 studies, specifically comparing the effectiveness of EMDR and trauma focused CBT for C/YP with post-traumatic stress symptoms (Lewey et al., 2018) found both approaches to be effective. For C/YP aged 7-17 with a PTSD diagnosis or clinically important PTSD symptoms, the National Institute for Health and Care Excellence (NICE) recommends consideration of EMDR only as second line approach following ineffective outcomes using CBT (NICE, 2018). This is despite evidence indicating that not only is EMDR equally effective and acceptable to this age group, but it can be more efficient when compared directly with TF-CBT, with some studies finding that clinically significant outcomes can be reached with fewer sessions (de Roos et al., 2011; Jaberghaderi, Greenwald, Rubin et al., 2004). However, in recognition of the debates about the strength of comparative EMDR evidence there has been calls for ensuring that EMDR research incorporates more robust evaluative research designs (Beer, 2018) and for researchers to focus on special populations such as children (Dominguez & Lee, 2019). Barron (2018, p. 176) highlights that "In order to influence professional guidance organizations that make recommendations on what therapies to use, the child and adolescent EMDR practitioner/researcher community will need to keep a primacy of focus on seeking to conduct the most rigorous research designs".

In line with the adult literature, the utility of EMDR with C/YP experiencing difficulties both distinct to and comorbid with PTSD has also started to be investigated (Barron, 2018). As the applications of this approach continue to be expanded, protocols have been developed and adapted to meet the specific needs of various C/YP populations (Gomez, 2012; Courtney, 2016). For example, using EMDR with C/YP who have cancer (Osorio et al., 2018), who struggle with self-esteem and behavioural problems (Wanders et al., 2008) and those with attachment difficulties (Adler-Tapia & Settle, 2012).

Qualitative Evidence

Despite the growing interest in strengthening the evidence base for EMDR there remains limited qualitative research focussed on understanding the experiences of those engaging with this therapeutic approach. The available research has identified several intriguing areas that warrant further exploration. A recent narrative review by Marich et al (2020) examined 12 qualitative EMDR studies and identified the following areas relevant to the EMDR community:

the value of the therapeutic relationship and attunement, the role of EMDR therapy preparation and safety measures, the perceived impact of reprocessing phases, and insights for EMDR therapy training and implementation. The authors concluded "that it is imperative that clinicians attend to the therapeutic relationship and provide adequate preparation" (Marich et al., 2020, p. 118). However, this review and the subsequent findings were based on a mix of both client and clinician experience. Whitehouse (2019) highlights that most qualitative studies to date have focused on the clinician's perspective, with less emphasis on the client's experience. The Whitehouse (2019) review explored the available qualitative research solely from the perspective of the client and identified only five papers relevant for inclusion, which consisted only of positive accounts. Four super-ordinate themes emerged: EMDR changes a person, necessary conditions for EMDR to effect change, EMDR method as agent of change and EMDR therapist as agent of change. Shipley et al (2022) conducted an updated review, which included grey literature, in an attempt to incorporate adverse experiences of EMDR. They found four over-arching themes: EMDR as intervention, mechanisms of change, EMDR is transformative, and therapist factors from the 13 included studies with adult participants.

Within the C/YP population, research exploring the client's perspective is even more sparse. To our knowledge, only two studies exist which focus on C/YP experiences of EMDR; one qualitative case study (Rathore, 2018) and a qualitative pilot study which investigated the EMDR Integrative Group Treatment Protocol (EMDR-IGTP) in a psychosocial program for refugee children (Hurn and Barron, 2018). However, the qualitative data from the latter study is of poor quality, consisting only of offering a qualitative option to the children for reporting subjective units of distress (SUD) scale for traumatic memories by giving their answer in pictorial form. The other measure used with the children was also quantitative; the Child Rating Scale, for which one child opted to draw pictures. The primary qualitative data and analysis was obtained through interviews with the therapists and interpreters to understand their experience of using the program with these children.

Research Aims

The aim of the current study is to explore and describe the lived experiences of C/YP who have engaged with EMDR in a CAMHS setting. Specifically, to develop a better understanding of the elements which were perceived as most impactful (both of a positive and negative nature) for this population, which may inform clinician's approach and delivery.

Research Questions:

- 1) How do C/YP make sense of engaging with EMDR in a CAMHS setting?
- 2) What aspects did they perceive as most impactful?

Practical Applications

Participant accounts will provide valuable insight into the complexities of undergoing EMDR, and the findings may highlight opportunities for improved clinical practice, CAMHS development ideas and identify additional research avenues. Although many factors are likely to influence individual's experience of accessing any type of therapy, bringing greater awareness to areas that may be of particular importance will enable clinicians to explore these with the C/YP they are working with to facilitate the optimum therapeutic environment and relationship to generate change.

Method

Ethical Approval

Ethical approval was obtained from the North of Scotland Research Ethics Committee (22/NS/0043, Appendix 2.2, pp. 93-97) and sponsorship was obtained from NHS Highland Research and Development Department (Appendix 2.3, pp.98-99).

Design

The study employed a qualitative design. Semi-structured interviews were used to explore experiences of C/YP accessing EMDR within CAMHS. Interviews were audio-recorded, transcribed verbatim and analysed using interpretative phenomenological analysis (IPA) to interpret and describe the accounts of individuals who participated (Smith et al., 2021).

Interviews

The interview guide was developed by reviewing the relevant literature, through collaboration with EMDR clinicians, academic and field supervisors, and in accordance with IPA guidelines (Smith et al., 2021). A semi-structured format was used to facilitate the production of a rich data set by allowing flexibility for participants to express their thoughts and have the freedom to guide the telling of their story as opposed to being led by researcher's assumptions. The semi-structured nature also provides an appropriate level of structure and containment, which may be particularly important for this age group. Interview duration ranged from 35 – 67 minutes (average 50 minutes). Interviews were audio recorded then transcribed verbatim at which point

all identifying information was removed to anonymise the transcripts. Due to the age range of participants the researcher adjusted the interview questions when required to ensure they were linguistically and developmentally appropriate for each participant, but also consistent in content.

Research Procedures

Recruitment took place between May and September 2022. NHS Highland CAMHS clinicians who practice EMDR were made aware of the research project via email following obtainment of ethical approval. Clinicians were asked to identify any previous or current clients that met the study criteria and contact the researcher to discuss their potential involvement. Following agreement from the researcher that the client(s) met criteria for participation, clinicians were provided with the relevant study documentation to pass on to their clients. For C/YP no longer accessing appointments at the service the documents were sent via post. The 'participant information sheet' (Appendix 2.4, p. 102) emphasised that participation was voluntary and choosing not to participate would not result in any adverse implications for their current or future care from the service.

Interested potential participants were given the option to a) contact the researcher directly or b) to provide details for the researcher to contact them via a completed 'permission to be contacted form' returned either to their clinician or via post. Smith et al (2021) highlight that, due to the data IPA aims to obtain, samples tend to be selected purposively as opposed to through traditional probability methods, and therefore this study used purposive sampling. Informed consent was obtained before commencing the interview (Appendix 2.5, p 103). Participants were informed that they could request to break, pause or stop at any time. They were informed that all details from the interview including the transcribed notes, would be anonymised and remain confidential. Participants were also made aware that they could withdraw from the study at any time. On the day of the interview, the researcher used their clinical judgement to assess the participant's current physical and mental state, only beginning the interview when it was considered appropriate to do so. Due to the large geographical area of the Highlands, participants were given the option to attend the service in person for the interview or participate remotely. Three interviews took place in a private clinic room at NHS Highland CAMHS, and one interview was conducted remotely via a secure video call link on the NHS "Attend Anywhere" platform.

Participants

Participants were C/YP who have engaged with EMDR therapy at NHS Highland CAMHS within the last 12 months at point of recruitment or were currently engaging. As EMDR is now used for a range of presentations and mental health difficulties, and the aim of the study is to develop an understanding of the experience of undergoing EMDR regardless of the difficulties experienced, the reason for referral did not determine eligibility. However, as it was essential that all participants had similar lived experience of the phenomenon being studied (Creswell, 2013), several exclusion and inclusion criteria, as described below, were used to obtain a reasonably homogeneous sample. If the participant was currently attending sessions their clinician was required to confirm that participation would be unlikely to have a detrimental impact on their well-being and current engagement with the service. Participants were required to have reached at least the processing phase of therapy to ensure enough sessions across the phases had occurred to provide a rich experiential account. Participants aged between 10 - 16years were originally considered for inclusion, due to both their likely ability to engage for a sustained period and that the EMDR protocol will not have been adjusted too substantially to affect the homogeneity of the EMDR experience of the group, as would be likely for participants under 10. However, an amendment was submitted (04/07/22 to increase the age range up to 19 years old due to difficulties recruiting within the original age range. This change was discussed with clinicians who work within the CAMHS who provided the professional opinion that this would increase the number of potential participants enough to obtain to the required sample size to facilitate completion of the study, whilst still enabling the research question proposed to be answered. Participants were also required to be fluent in English and have capacity to consent. If participants had communication or attention difficulties which would prevent engagement in an interview of approximately 60 minutes they were excluded.

During and following the Covid-19 pandemic, many C/YP accessed therapy remotely. There is evidence to suggest that online EMDR is an effective option (Barak, 2008; Spence et al., 2009), so was not a means of exclusion from the study. However, the researcher was aware that the format of the therapy may have impacted on participant's experience, therefore this factor was incorporated into the interview guide.

A total of nine potential participants were identified and discussed with the researcher. For two YP their clinician judged that their mental health was not stable enough to participate, one did not respond to communication about the study, one decided they did not want to participate, and one decided not to proceed with engaging in EMDR. Four participants between 13 and 17 years old provided informed and written consent to participate in the current study. The sample consisted of one male and three female participants, who were attending CAMHS for support in relation to a broad range of difficulties. The stage in which participants had reached in their therapy varied from having had three processing sessions to having completed therapy. Due to the size of the sample and the recruitment method used, to maintain anonymity gender-neutral pseudonyms have been assigned and additional demographic information has not been provided.

Unlike other qualitative methodologies, IPA is not concerned with continuing until data saturation is achieved (Brocki & Wearden, 2006). Smith et al (2013, p. 51) explain that "the primary concern of IPA is with a detailed account of individual experience", emphasising that that "there is no right answer to the question of sample size" for an IPA study (2013, p. 51), a sentiment also supported by Pietkiewicz and Smith (2014). However, it has also been proposed that 4 - 10 is appropriate for professional doctorates (Clarke, 2010). Although this study has included a sample at the smaller end of this range, Hefferon and Gill-Rodriguez (2011) highlight that in line with IPA's idiographic focus an in-depth, comprehensive exploration of fewer participant's experiences is of greater value than a surface level examination of a larger sample.

Data analysis

IPA explores how individuals make sense of their personal and social world to understand the meanings attached to experiences or phenomena (Smith & Osborn, 2007). For this group of participants, the phenomenology of engaging with EMDR therapy is considered appropriate to explore given the scarcity of qualitative research available and the potential significance attached to the experience of accessing support via a mental health service during childhood or adolescence given the formative nature of this time in life. Data analysis was carried out in accordance with IPA principles (Smith et al., 2021) to identify personal level and group level experiential themes using a double hermeneutic approach with an idiographic focus. This involved the researcher immersing themselves in the data by repeatedly reading the transcripts to become familiarised with the information, creating a case study for each account, assigning descriptive, linguistic, and conceptual exploratory notes, followed by assessment of patterns emerging from these notes to identify personal experiential statements. A cross-case analysis was then conducted to identify group experiential themes formed by group level sub-themes. Narratives and significant excerpts from participant accounts are presented in the results for transparency. The research supervisor independently reviewed a sample of the transcripts, and discussions of the themes identified a good level of concordance within and across cases.

Researcher reflexivity

As the researcher's role in the process of IPA is central to exploring individuals' experiences of a particular phenomenon (Alase., 2017), it was essential to consistently take into account the impact that the researcher's experiences, beliefs and biases had through-out the research process. A reflective log was completed by the researcher prior to interviews, following interviews and throughout analysis to increase awareness of these factors. Smith et al (2021) recommend this practice to facilitate 'bracketing', which allows the researcher to develop awareness of the role they play in the analytic process by enhancing their understanding of their own preconceptions and biases. Academic supervision took place to allow additional space for the researcher to reflect on their experiences.

As a clinical psychology doctoral student, the researcher had no formal EMDR training. Knowledge of EMDR was from an academic perspective, with limited clinical understanding coming from prior observations of EMDR sessions and discussions with EMDR trained clinicians. As the researcher had previously worked in the NHS CAMHS which the research was conducted within and was also completing a training placement there at the time the interviews took place, the implications of having prior knowledge of the service and that the recruiting clinicians were also colleagues was considered and reflected on. With particular emphasis on recognising the complexities and potential for bias this created when participants were reflecting on the relational aspects of their EMDR experience in the interviews and during analysis and write up of the results.

Results

Four group experiential themes emerged from the analysis, which are formed from 13 group level sub-themes. These are outlined in Table 1. Gender neutral names have been assigned (Rory, Taylor, Drew, and Charlie) and gender-neutral pronouns are used throughout.

Group Experiential Theme	Sub-level Group Theme
The Importance of the Clinician's Role	Trust in the clinician
	Limited clarity about how EMDR works negated by trust in clinician and their competency
	In a collaborative team with clinician

Table 2 1. Group Experiential Themes

	Clinician's attunement
Reflections on engaging with the initial	Getting past the initial concern and 'oddness' of
phases of the EMDR Process	EMDR
	The Diverse nature of motivation to engage
	Variation in preparation
Meeting individual needs	Experiencing choice and flexibility around
	appointment format.
	Experiencing choice and flexibility of bi-lateral
	stimulation options.
	Taking it at the young person's pace
Beneficial Aspects of engaging with EMDR	Positive therapeutic relationship
	Observable behavioural changes
	Shift in internal state: emotions and confidence

The Importance of the Clinician's Role

The importance of the clinician's role was a central feature in all participant's accounts of engaging with EMDR. This spanned across several aspects of the engagement and therapeutic process, with a particular common emphasis on trust, collaboration, and attunement.

Trust in the clinician

It was apparent for three of the participants how important the development of trust within the therapeutic relationship was for enhancing their willingness to fully engage with the process. The participants described the different ways they felt their clinicians had created and prioritised this relational trust. The timeframe which was required for this trust to develop varied. Drew spoke about the development of trust over time, *"The fact that I really trusted [clinician] helps I think because I feel like for people who are like going to do it, it would really helpful if they have at least had their therapist for a while, just in the sense of to trust them" (Line 589), but the other two participants experienced this trusting relational element whilst working with their clinicians over a much shorter time frame.* Rory spoke in the context of their trust in the service previously being broken following difficult experiences with CAMHS clinicians, which had become a barrier to engagement, "*I didn't really trust after I saw him, then another girl came and I wasn't really sure about her either, so I didn't want to come here*" (Line 336). Rory's use of the word 'aura' suggests that their general positive sense of the clinician as a person was an important factor for facilitating the rebuilding of trust, *"just how she acts around me, that is like, you know, like when you like trust someone, yeh it's aura*" (Line 298), in addition to the clinician's validation of their experiences, *"she's like always agreeing with me as well if I say something and she's like that shouldn't be happening and like you're okay..."* (Line 299).

Drew used powerful imagery to emphasise the significance of their trust in their clinician's ability to contain and support them to re-visit traumatic memories without it having further detrimental impact, *"EMDR is basically like, like you've got a scar and you've decided, like you've literally decided to cut open the scar and just like let yourself bleed out kind of thing, like that's basically what it is and it's very helpful if you're going to do that regardless, if you have someone who knows how to re-sew up your now bleeding out injury"* (Line 592).

For Charlie, the trust in the relationship wasn't explicitly stated, but appeared to be conveyed through their descriptions of their ability to move away from feeling the need to provide correct responses to please the clinician to feeling comfortable with being honest about their internal experience, which enabled progress. Charlie explained *"I think sometimes there's the need to give the right answer or you want to do the right thing"* (Line 508), adding *"I kind of was a bit stuck at like [SUDs rating] kind of the whole time and I did, I voiced that, and I said that each time, and that meant that we then got to a conversation about having a block and like things like that, because you're not going to get anywhere if you're not being honest"* (line 519). Trust also appeared to play a role in Charlie's positive experience of how their clinician responded to secondary memories. Charlie's description demonstrates their certainty that the clinician would follow through with what they had said, *"she'll say that we're going to park it and then we have like come back before, or it's like a memory, like it's the next memory we're gonna work on and we'll wait a couple of sessions until we've finished the one that we're working on and then we'll come back to it another time I'm sure."* (Line 418).

Limited clarity about how EMDR works negated by trust in clinician and their competency The next sub-level group theme corresponds closely with the discussion of general trust in the relationship above. Although there was some degree of shared understanding about the purpose and goals of EMDR before commencing treatment for most participants (n = 3), for three of the young people there was a sense of either not being able to recall or not being able to demonstrate confidence in their understanding of the rationale behind engaging in the different EMDR phases and how these phases could create the change they were hoping for. However, this didn't appear to cause concern or negatively affect their ability or willingness to engage with this therapy. There was a common element across three accounts that they didn't need to know because their trust in their clinician and their clinician's competency negated their need for a full understanding.

Drew acknowledged their uncertainty whilst conveying their belief that full comprehension would require understanding of complex, scientific knowledge. When asked if they understood why they're engaging in the bi-lateral stimulation Drew explained, *"I don't actually remember to be honest. Umm is it like to have something to focus on so then like the back of your brain nonsense, I'm sure they have like proper science-y words…"* (Line 462). Drew used a medical comparison to explain their rationale for not requiring a more comprehensive understanding of the different EMDR phases *"to be honest, like as long as the stuff works, like, do you know when like, you take medicine? You don't need to know what's in the medicine as long as it works"* (Line 479), adding that their faith in their clinician's competence and experience overshadowed this, *"well, to be honest, I assumed that [clinician] knew what she was doing, which I feel like most people should assume. Like she's talking, she's saying the right things. I'm assuming that she's like, she's been doing this for a while, but I mean, I'm assuming that as a therapist she knows what she's talking about…"* (line 671).

Taylor described their experience of not understanding EMDR, appearing unconcerned by this and more focused on making sense of their experience once they engaged with processing, "Well, I didn't exactly know what it meant, so I think I just went ahead with it, but it was quite, it was very helpful once I started it, but I didn't exactly know what...I can't remember completely what I felt but I didn't know too much about what it was." (Line 124). Although Taylor didn't have a clear understanding, they remembered how their clinician's explanation encouraged them to engage, suggesting that the content of the explanation may not have been as important to them as how their clinician's explanation made them feel, "Well, [clinician] explained the process and that helped me to go ahead with it." (Line 145).

Rory's description conveys a sense of confusion about the bi-lateral stimulation element, *"I think it's you know when there's like a free ball thing and it's like click, click, click?"* (Line 154). There was a sense that Rory's lack of understanding about how the process would work contributed to concerns that it may not worthwhile to engage with EMDR, however the trust

they placed in their clinician's reassurance that they would remain in control of the situation enabled them to proceed, *"I just didn't want to waste my time on something that wasn't going to work, but [clinician] was telling me like we could stop, like anytime we wanted basically just reassuring me the whole time (gentle laugh)..."* (Line 119).

in a collaborative team with clinician

Use of language and specific references made by participants conveyed a sense that they felt like they were in a team or partnership with their clinician, and that this collaborative aspect of the therapeutic relationship enabled them to engage and progress with EMDR. For example, three participants frequently used 'we' and 'us' in place of 'l' and 'me' when reflecting on their EMDR experience (e.g., *"we have it always like at the [centre]"* (Rory, Line 34) and *"That's kind of been like a bit of a focus point for us"* (Charlie, Line 328)). Two participants stressed that despite their lack of clarity about EMDR their clinicians had explained EMDR thoroughly at the outset including using written resources to explain the process and rationale, *"I'm pretty sure, like I'm sure she gave me a full explanation before, but I cannot remember"* (Drew, line 472), perhaps suggesting a desire to defend their clinician (and perceived team mate) from any negative connotations associated with their uncertainty or inability to recall the psychoeducation provided.

Taylor's description of their clinician being there 'with' them highlights that they experienced their clinician being alongside them suggesting. This experience may have had a positive impact on minimising the power imbalance within the therapeutic relationship, *"when you feel like you're getting help, it makes you feel better, when you feel like somebody is helping you and is there with you, so it just really makes me feel quite good"* (Line 375).

Charlie's description of their clinician's balanced collaborative approach emphasised the value they placed on having the right amount of personal agency to work through aspects of the process independently, whilst being able to access the appropriate level of support, reassurance and validation when required. "...I'll say I'm looking for a simile for this or something and [clinician] will help me find the right word or kind of help me work through what I'm thinking. Which is quite helpful rather than like just either moving along or shutting it down or like telling me what I'm thinking. Just kind of working through it with me. It's been quite useful and like let me know I'm thinking the right things..." (Line 358). Charlie's excitement at sharing the good news with their clinician after noticing a change in how they coped with a previous trigger conveyed a real sense of feeling part of a team, "I was also kind of quite excited to come back next week and let [clinician] know. So that was the first thing I told her when I came in because I was quite happy with it" (Line 479).

Clinician's attunement

Three of the participant's accounts highlighted the importance the participants placed on experiencing their clinician's attunement to their emotional state and needs and acting on these accordingly to support them.

Rory's description suggests they were surprised at their clinician's ability to correctly identify their emotional state, "...sometimes if she like sees that I'm struggling she will tell us to stop. Like I don't know how she sees it (laughs), but she does, and she's like okay we'll have a break" (Line 316). When reflecting on this further, Rory added "I think that she actually understands me, by just looking at my posture or whatever." (Line 329).

Drew: "she'll just like she kind of just, like figures out my mental state for the day, you know? Because like, it's not always good to do EMDR if you're already rubbish." (Line 410). When asked how they thought their therapist was able to tell that they were managing well with processing Drew used humour to articulate their experience, "She's psychic I think (laughs). Therapists are actually secretly psychic and that's how they know." (Line 668).

Reflections on engaging with the initial phases of the EMDR Process

The second group experiential theme brings together the participants' perspectives of engaging with different aspects of EMDR, with the emotional and cognitive aspects of their experiences when first hearing about EMDR and during the initial phases being most relevant to their accounts.

Getting past the initial concern and 'oddness' of EMDR

There was a sense from all participants that when EMDR was initially suggested and explained to them that their initial impression, although not necessarily negative, was that it seemed odd. For some of the participants this carried over to their first experience of engaging with bi-lateral stimulation. A range of emotions were experienced when considering the perceived peculiarity of this approach, including scepticism, curiosity, fear and doubt. However, there was also a sense of it becoming normal or intuitive after trying it.

Taylor explained, "Well, normally when it comes to something that I'm not sure of, I'm quite sceptical. I'm quite sceptical about a lot of stuff, so I was, of course, sceptical to start with". (Line 136). When reflecting on the bi-lateral stimulation element Taylor acknowledged that the process didn't fit with their preconceived notions about therapy "It felt quite odd I've got to

admit...Didn't expect that from therapy". (Line 250), but they recognised how this changed for them as the process became more familiar "*it feels instinctive because I've done it so much*" (Line 242). Taylor also reflected on how tolerating their fear allowed them to progress, "When you draw out something that scares you, it can be a bit challenging sometimes, but I think that when you do it you feel some sense of accomplishment." (Line 352).

Rory's description highlighted their confusion about the approach, *"I didn't know what she was gonna do, but I thought she was just going to hypnotise me (laughs)* (line 53), adding how their concern about what could happen made them wary, *"I was scared about if I like went down that path again, if I went back into it. So, I didn't really want to go back into it 'cause I've never really spoken about it."* (Line 94). They reflected on how their disbelief about what was involved affected their initial experience, although their laughter throughout their description conveyed that they could now see the humour when looking back on the inaccuracy of their initial worries compared with the reality they experienced when engaging with the process, *"I just felt like an idiot (laughs)"* (Line 164), adding *"I felt like you know when people are like making fun of you and tell you what to do, but it's like not right? I basically thought she was doing that to me (laughs), but she wasn't."* (Line 168).

Charlie reflected on their doubts about the process. The lack of clarity in their language choice demonstrating the extent of their uncertainty with their description suggesting they may even have been confused about their confusion, *"It just kind of seemed a bit funny, I guess when we kind of started it, I was just a bit confused…well not really confused, but just kind of like, I don't know, I didn't really see it…I was quite doubtful I guess." (Line 46). Charlie also acknowledged their initial scepticism <i>"I did think if I'd have to just kind of sit there for an hour and pretend like something was happening because I wasn't sure if it would do anything"* (Line 131), whilst also recognising how this has shifted, *"It feels just quite normal now, not normal I guess, but like I'm I just kind of know what to do like, what to think and to kind of see how it makes me feel…"* (Line 271).

Drew used an analogy to emphasise the fear that preceded their engagement and how they rationalised this to normalise their experience and to facilitate their engagement, "you know when like you're going on like a roller coaster and there's like that moment beforehand and you're really anxious about it because of course like everyone gets scared going on roller coasters, I'm assuming. I mean, like that adrenaline thing, but it's kind of like there's that like a fight or flight moment and you just need to decide what you're doing at that moment. It's just kind of like, I don't want my entire life to be like...I want to live my life..." (Line 189). This

conveyed that they were willing to tolerate difficult emotions for the possibility that things could be different.

The Diverse nature of the Motivation to Engage

Participants reflected on their motivated to engage, revealing important areas of divergence in the motivational factors that appeared to influence their decisions. However, one participant highlighted that due to the extent of their difficulties *"it wasn't really like a decision, it was more like a need"* (Drew, Line 188) and another mentioned that due to the time that they had waited to access support that when EMDR was suggested they just *"kept going with it"* (Charlie, Line 99).

Taylor spoke about how their curiosity about EMDR, and the possible outcome, played a role in their decision, *"I'm curious about what the methods would be like and whether it would help or not"* (Line 142).

Three of the participants highlighted that their parents' positive views about EMDR or about their engagement either contributed in a valuable way to their decision-making process or helped them feel supported in their decision.

Taylor: *"…Mum supported basically anything that was good for me, Mum supported it."* (Line 162).

Rory: "my Mum's a [health professional] as well and she's like heard about it as well and so she was like it's going to be really good for you. So, she was like, telling me, like, it's OK, you know? So, I was like I'll just try it." (Line 87).

Drew explained that they discussed it over a few occasions with their Mum, "like it wasn't just like one sit-down conversation, it was like a few conversations of it." (Line 258). Drew added "I think my Mum was ultimately quite proud, kind of thing, because like I was just going like this seems like a good idea like." (Line 262).

Drew and Charlie were beginning a stage of transition, moving from childhood into adulthood, and were both thinking ahead to how they would like this next stage in their lives to look. They described that their motivation to engage was in part driven by the opportunity to leave the distress associated with certain childhood memories behind, suggesting that they were hopeful that the next stage of their lives wouldn't be adversely impacted by continuing to carry these difficulties with them. Drew: *"I want this over with, done with, like I would like to be a stable grown up…"* (Line 270). When discussing the prospect of moving away for University Drew explained the limitations this would create if their traumatic memories continued to have a significant impact *"Yeah, I'd like to not have a panic attack at the thought of seeing him it's kind of…it's my goal in life (laughs)."* (Line 302).

Charlie: "Because it, I think, for me, a lot of it was kind of dealing with all the memories and stuff, like before I kind of left school and left home and stuff, and I wanted to leave a lot of childhood memories in my childhood." (Line 447).

Variation in Preparation

With regards to the preparation phase participants described a range of different approaches taken to help them regulate their emotions during session and out-with sessions. There was considerable variation in which aspects were most meaningful to each participant and the level of emphasis they placed on this being integral to their experience. There was a sense that some of participants didn't consider the preparation elements of EMDR being an integrated part of the therapy. Rory's description referenced the grounding strategy being used "before doing the EMDR" and Taylor described that "the tapping was the main method of therapy". When initially asked to recall what their EMDR sessions involved, two of the participants did not mention any aspects of the preparation phase until specifically asked, with all participants focusing primarily on their experience of the processing phases and the bi-lateral stimulation element.

Rory highlighted the different ways they were supported to regulate their emotions during the process, including being taught a grounding strategy "So, I have to tell her what's in the room before doing the EMDR, so she was just taking me step by step basically, what to do just in case..." (Line 196). Rory's understanding was that they needed this due to their unstable emotional state "just in case I'm scared or something...because I'm a bit of a nervous wreck...". (Line 200). Rory also spoke about their experiences out-with sessions describing that they experience anger at times, however they didn't reference using any strategies learned in sessions to cope with this and had only used a relaxation tape provided by their clinician once when directed to by their parent, "Yeah I've used it once, I just sat and listened to it because my mum told me to listen to it" (Line 243).

For Taylor, comfort was key to managing their emotions. They spoke about the stabilisation resources agreed at the start to support them to feel comforted and comfortable during therapy. *"I had pictures of family and stuff like that. I also had fidget toys, I have a box, a box of*

stuff that I like." (Line 199) "this is just to comfort me because sometimes it goes over quite distressing topics, so it's basically just been quite a lot of help with it." (Line 226).

Drew recognised how beneficial spending time creating a 'calm place' had been "I just find it really calming to think about it like and because beforehand we would really practise because she wanted to make sure this place was like a very much a place that I could go to afterwards. So like I can like hear everything around, I can like I can just kind of like feel that I'm actually there afterwards" (Line 93), and how creating a sense of separation between themself and the traumatic memory helped them to feel confident to leave the session, "then we kind of just lock away the memory and like mine is more like a like it's a door or like a chest" (Line 96). Drew's language emphasised how this helped them transition from therapy to daily life "it was like shoved away, so then I could like try be human afterwards." (Line 101). Although Drew spoke positively about engaging with these strategies, they acknowledged that they don't utilise them out-with sessions as the emotional effort required is harder to achieve on their own "I feel like if I full blown try and remember like my happy place or like my safe place or whatever, it takes like a lot more feelings or something like that, I don't know. It's just easier here" (Line 122).

Charlie's description also highlighted the benefits of being able to separate themselves from the memory and transition in an adaptive way afterwards, "we've just kind of been using it at like the end of a session, just kind of close the door on the memory that we're working on and just kind of go back to something positive so that I'm not leaving feeling upset or distressed". (Line 230).

Meeting individual needs

This group experiential theme outlines how participants experienced their needs being met by their clinician through choice and flexibility to tailor certain aspects of the process to their individual requirements. This created a sense that participants experienced greater personal control and agency where possible when engaging with EMDR.

Experiencing choice and flexibility around appointment format

All the participants identified choice around the format of their sessions i.e., in-person or remote appointments. They described a clear preference and rationale for the format that best met their needs, and how the flexibility offered supported their engagement.

Taylor's description highlighted that their preference changed during the course of their sessions due to the pandemic, and this preference being support helped them to feel comfortable to continue engaging, *"since the pandemic, I wasn't comfortable with going in so*

ever since then I've been doing it virtually." (Line 95). They explained "I was quite comfortable with it because I'm in my house as well, so it's quite a comforting place, so I quite liked doing it virtually." (Line 101) adding that their familiarity with online formats helped "...since I do online school like it's quite, I'm quite used to doing stuff on the screen." (Line 399).

Charlie's preference was also influenced by the pandemic, *"I just kind of wanted to wait till after everything came back into person, I didn't want to do it online really…I'm not sure, I think I just thought that it would maybe work better"* (Line 30).

Drew recognised that their insight to their own attention requirements was an important for their in-person preference, *"I find it quite difficult to focus during, because I've got quite short attention span when it comes to phone calls and I'll just end up being quite distracted"* (Line 42). Drew also explained that in-person sessions made it easier to feel grounded *"I feel like that would be more difficult to try and like ground myself on my own afterwards"* (Line 56), and to access support from their family following appointments *"Like even if I need to be alone afterwards, like at least they'll know, so other people will be there, but like having [clinician] there is just like helpful, do you know what I mean? Rather than her being through a phone or something different"* (line 58).

Experiencing choice and flexibility of bi-lateral stimulation options

Three participants discussed the choices offered in relation to the bi-lateral stimulation aspect of EMDR, for example, Taylor shared *"I preferred the tapping"* (line 240). There was considerable variation in the preferred approach and the reasons for this.

For Drew, their experience in relation to bi-lateral stimulation choice appeared to be an important aspect of their EMDR experience. They explained their specific concerns and requirements in relation to using an approach that allowed them to focus on processing without becoming distracted by the technique: *"She said that there's like a few different ways to do it. There's like the clicky clap thing, which we didn't do because I didn't want to do it to be honest, I would get distracted, I can't multi-task like that"* (Line 222). The clinician's responsivity provided an opportunity for Drew to experience their needs being listened to and attended to, *"I just said to her see when we're doing this can we just have them exact, like, I mean can we get like a ruler and full-blown do this (laughs). And she was like yeh I can get you a ruler so we can have it sorted and then like she'd have me sit and make sure I was happy".* (Line 451).

Rory spoke about how their preferences changed as they progressed through the sessions, initially opting for visual bi-lateral stimulation due to concerns about closing their eyes *"I felt*

more calmer doing that one [arm movement]" (Line 177), but recognising later when they became more comfortable, that engaging in tactile bi-lateral stimulation allowed them to focus on recalling and processing the target memory in a more effective way. Rory explained "I can't really visualise it when I'm doing other stuff, like I can't really focus on the thought (Line 271), adding "I was looking basically at [clinician], I could see her face and then I was looking at her and it like hurt my eyes at the same time, 'cause it was so fast. So, I don't know, it was just too much all at once" (Line 277).

Taking it at the young person's pace

A common theme across experiences were descriptions which highlighted the participant's appreciation of the clinician supporting them to progress at the most optimal pace for them. This included making space for voicing when they felt unable to manage processing that day, *"I just say that I just can't do it like I'm too mentally exhausted"* (Taylor, line 299).

Rory described the fluctuating nature of their experience as different issues often had to be attended to before moving forward with processing *"sometimes like we would have to stop 'cause sometimes like other stuff would come like into play"*. (Line 20). It appeared that Rory viewed this approach positively as when asked how they would describe EMDR to a friend, the main aspect that Rory would want to share was *"that you can have a break whenever you want if you don't wanna go fully into it, like on day one."* (Line 404).

Charlie's description of their experience highlighted how the clinician's use of pacing created opportunities for them to feel heard *"she gives me enough time to talk about it, she's doesn't rush me or say well we'll just move on and not proper actual listen to me"* (Line 424).

Beneficial aspects of engaging with EMDR

This group experiential theme brings together the range of beneficial aspects the participants experienced by engaging with EMDR in a CAMHS setting. The perceived benefits discussed were primarily related to the participants relationship with their clinician, their experience of behavioural changes and their experience of shifts in their internal state.

Positive therapeutic relationship

As highlighted in the first group experiential theme all of the participants in this sample had or are currently having positive experiences of engaging with an EMDR clinician. Not only did this facilitate engagement and progress with EMDR, but this positive relational aspect appeared to be experienced as an entirely distinct beneficial aspect of their experience entirely unrelated to their views on whether EMDR has been successful for alleviating their distress/symptoms. Rory found their clinician's honest perspective beneficial for helping them accept the reality of their situation, "a lot of people just tell me what I want to hear and she sometimes tells me, like, what is actually going to happen. Because people are telling me, like, you just can forget that after, like therapy and all that, she's like, telling me like, no, like you're not gonna just like forget about it. Like it's gonna have like a lot of ups and downs while you're doing this" (Line 307). Rory also acknowledged how important having a containing relationship and space with their clinician has been to allow them to safely discuss their difficulties, "last time I did scare my Mum and I didn't like it 'cause like she had like take days off work so I just basically didn't tell her anything after that, so when I come here it's like a breather so I can get it out basically". (Line 352)

Drew explained how their clinician's consistency helped them progress and develop a deeper understanding of their difficulties, *"like I'm better now and it's just all different things because I've been through like different journeys and stuff with [clinician] and it's just very much like seeing her on a weekly basis for like going through everything, you know, what I mean, like I'm just really trying to get down to like, what was actually wrong with me"* (Line 624).

Charlie's reflected on their clinician's response when sharing their feelings has made them feel validated, *"I think [clinician] has been really receptive to anything I say and she's kind of, there's no right or wrong answer, it's just kind of what you feel, which again is kind of the validating thing of like you feel what you feel and no one else can kind of know that or tell you how you should feel and which has been quite nice"* (Line 525).

Observable behavioural changes

In addition to the perceived benefit of experiencing a positive therapeutic relationship all the participants experienced observable changes in their behaviour since engaging with EMDR. Some acknowledged their certainty around the link between EMDR and these changes, whilst others who were earlier on in their therapy were cautious, but optimistic, that the changes were due to EMDR and expressed hope that continuing to engage would result in further positive change.

Rory's description appeared to convey their surprise in the extent of the change they experienced, *"it's just helped me, it's made me want to do stuff like go for walks and stuff, and I like hate going on walks, like ever. I just woke up one day and was like let's go on a walk (laughs)"* (Line 376). Rory also shared their perception of how their family experienced these changes, highlighting how remarkable the pre to post therapy shift must have been, *"my family*

were a bit shocked. Yeah, 'cause I got job as well and they were a bit shocked about that". (Line 328).

Charlie described how experiencing a shift in behaviour between sessions reinforced their belief in the process "I was quite glad that it kind of happened 'cause it let me see that it was kind of doing something out with just when I was thinking about it or focusing on it and that even when I'm not actually doing the EMDR or actually thinking about it it's kind of leaving a little bit of an impact anyway. A positive impact". (Line 339)

Taylor identified a clear difference that helped them to recognise their progress *"I never really smiled in photos, but now I do, now I smile in photos, so I think I've come quite a long way from when I was [age] to now"*. (Line 371)

Shift in internal state: emotions and confidence

As well as observable changes in behaviour, which could be readily noticed by others, the participants also described changes to their internal state in the form of experiencing more positive emotions and feeling more confident.

Drew described their increase in confidence to manage difficult situations when they occur in the future, *"I've not actually interacted with him, but I have faith that it's going to happen and I'm probably not going to burst into a pile of tears and give myself a ginormous panic attack"*. (Line 686). When reflecting on this further, Drew also articulated their experience of healing, *"I feel like healing has happened, do you know what I mean? Like, I just feel like my brain has just kind of figured out, oh yeah, you're not in danger, you're fine like this is in the past, you're good, <i>chill, like take a breather, let's try and like work it out"* (Line 713), and an increase in self-awareness to recognise and enforce their own boundaries, *"I can help you sometimes but also I need to not help you sometimes because, like, sometimes you need to be a bit selfish with your mental health…."* (Line 738).

Taylor reflected on the comparison between their past self and present self "I looked at one of my old journals and I just seem so depressed in that state, I just seem so depressed. I basically...everything was just sad and stressed, every single day going on and on and on and on. I just felt really bad for my past self, but I feel better now. " (Line 364). Taylor also described how their increased confidence has equated to changes in their daily life "I see very big difference from me in the past than me now. In the past I was quite shy, but now I talk now, make friends at school..." (Line 369).

Rory, who was earlier on in their EMDR journey, was slightly more cautious in their reflections, but had already noticed some internal shifts, *"basically we just started it so, I'm not really sure, but I have seen a big difference in like my mood, like I'm really more like happy, like I can speak to people, like a lot more now (gentle laugh). So yeah, I'm just way more confident basically in myself"* (Line 363).

Discussion

This study sought to explore the lived experiences of C/YP accessing EMDR within CAMHS to enhance clinicians understanding of this perspective and to highlight how practice may be adapted to optimise the experiences of this population. Four group experiential themes emerged from the analysis: The importance of the clinician's role, Reflections on engaging with the initial phases of the EMDR process, Meeting individual needs, and Beneficial aspects of engaging with EMDR.

The over-arching theme of the beneficial aspects of engaging with EMDR provides further evidence for C/YP experiencing positive outcomes, of various forms, as a result of engaging with EMDR, a finding supported by both the Shipley et al (2022) and the Whitehouse (2019) reviews exploring the experiences of adults. The extent of the value placed on their relationship with their clinician was apparent for all participants, as they navigated the complex and challenging emotions associated with engaging with EMDR in the context of seeking support for mental health difficulties as a C/YP. This was demonstrated in relation to the way that trust, collaboration and attunement contributed positively to the participant's ability and willingness to engage with EMDR. In addition to this participant's experiences of a safe and positive relationship with a trusted adult, which appeared to be perceived as a distinct aspect separate from the outcome of therapy was also evident. The importance of the therapeutic relationship has been well-established (Norcross, 2010). However, it's important to consider the role this relational element plays specific to EMDR, even if perceived as distinct by the C/YP, as it has been suggested that the therapeutic relationship itself forms part of the adaptive memory network which facilitates the processing of adverse life experiences (Hase, 2021). Although previous qualitative research has also identified the importance of the therapeutic relationship specific to EMDR (Marich et al., 2020; Whitehouse 2019), the specific mechanism of change underlying this key element is yet to be determined and may be influenced by several factors. This includes previously identified factors e.g., the individual's experience of trust, attunement and collaboration to facilitate engagement, but also the specific processes involved for this relational aspect of EMDR to form part of an individual's adaptive memory network and therefore enable change.

The impact of the clinician's role on the C/YP's EMDR experience in this study are closely aligned with findings from previous qualitative reviews exploring the experiences of adults. Shipley et al (2022) found across the majority of studies reviewed that a sense of safety and trust within the therapeutic relationship was experienced as essential for successful outcomes, a finding which when considered with the C/YP's experiences in this study, demonstrates the relevance of the therapeutic relationship across the lifespan. Hase and Brisch (2022) highlight that despite advancements within EMDR a specific description of the therapeutic relationship and how to create a secure therapeutic relationship during the initial phases is yet to be provided. Given the importance of the therapeutic relationship and recognition of how the therapeutic relationship in EMDR differs to other therapeutic approaches they recommend that this is addressed and propose the importance of viewing this through an attachment lens to enhance understanding (Hase and Brisch, 2022). Given the far-reaching detrimental impact unresolved trauma is known to have when experienced in childhood and the effect of this on attachment, this may be particularly pertinent to explore in relation to C/YP (Breidenstine et al., 2011). Due to the variation in length of therapeutic relationships within this sample it's possible to identify that this alliance can be established within a very short time frame, although individual differences in this requirement needs to be accounted for. This has relevance when considering the evidence indicating that when compared with other trauma therapies a strength of EMDR is that therapeutic benefits may be experienced over fewer sessions (de Jongh et al., 2019).

Understandably the initial stages of the process generated a range of difficult emotions and cognitions for the C/YP, who had to tolerate their uncertainty and the perceived peculiarity of this approach to fully engage. This may be a common experience for C/YP engaging with any therapy in a CAMHS setting, although the evidence exploring this is lacking. However, it's possible that the nature of EMDR may amplify this experience. Given the commonality of this theme across all participants it warrants the consideration of meaningful ways to address and alleviate the uncertainty, scepticism and fear that linked participants experiences. For this sample these experiences appeared to be mediated by the strength of the therapeutic relationship, and for some participants, parent support, however this may not be the case for all C/YP engaging with EMDR. This finding is echoed by similar findings in the Shipley et al (2022) review who identified 'initial scepticism' as a sub-theme and highlight the need for creating safety and providing comprehensive education to mitigate client's concerns and fears in the
early sessions. Marich (2020) discusses the need for providing adequate rationale for EMDR in response to research within the adult literature indicating that some therapists experience challenges when explaining EMDR to their clients (DiNardo and Marotta-Walters, 2019) and that clients have reported confusion about how EMDR works, which for some individuals negatively impacted their trust in EMDR (Marich, 2012) and for others affected treatment retention (Marsden et al., 2017). She highlights EMDR's perceived bizarreness and recommends that "The EMDR community is advised to develop better and simpler rationales for EMDR's implementation that can be easily understood by the general public" (Marich, 2020, p 131). By making use of the available literature on preparing individuals for therapy to appropriately manage expectation and reduce dropout rates (Ogrodniczuk et al., 2005) and incorporating parental support where appropriate (Nix, 2012), standardised processes and resources tailored to the age and stage of the C/YP could be integrated into the delivery of EMDR across services. For example, providing accessible, online video resources outlining the EMDR process and incorporating views from C/YP who have lived experience of engaging with EMDR.

When considering the variation in participant experience of the preparation phase of therapy, it was clear that clinicians had adapted this to meet individual need, highlighting the iterative and flexible process EMDR can take, despite appearing to consist of a linear eight phase approach. Participants accounts highlighted a lack of awareness about this being an integral part of EMDR and that strategies to regulate emotions weren't routinely used out-with sessions. In conjunction with one participant's belief that they were taught a grounding activity due to them being a "nervous wreck" this indicates the importance of providing a clear explanation about the preparation elements of EMDR to normalise this as an integral part of the therapy and to facilitate the development of transferable coping strategies. It may also prevent incorrect perceptions about requiring these strategies due to fragility as opposed to it being normalised as a standard part of the therapy that can be used during processing, at the end of sessions and between sessions. Given the heightened emotional experience the participants described during the initial stages, and what is known about the ability to process and retain information whilst experiencing stress (Schwabe et al., 2012), checking in to ascertain understanding and strategy use as the therapy progresses and routinely providing additional information to enhance understanding may increase C/YP's confidence in the approach and their ability to cope out-with sessions.

When it comes to preference across different aspects of EMDR, the theme of 'meeting individual needs' offers insight into the complex areas of convergence and divergence within

this population, highlighting the importance of flexibility using choice and pacing to facilitate a sense of control and agency, and tailoring aspects of the approach where possible to meet individual needs. This indicates the utility of providing multiple options where possible as standard across services. It may be useful for clinicians to consider that preferences for format and bi-lateral stimulation approach may fluctuate across sessions so providing opportunities to revisit options and support C/YP to identify which best meets their needs is likely to be beneficial. This may be particularly relevant when using EMDR with C/YP who have neurodivergent requirements (Adler-Tapia & Settle, 2012; Fisher et al., 2022). Supporting clinicians to feel confident in delivering EMDR remotely to enable this individual choice is also likely to improve accessibility to EMDR in health boards with large geographical areas and promote inclusivity for those who experience challenges travelling to appointment (e.g., due to disabilities or cost of transport) (Markowitz et al., 2021).

This study demonstrates the range of individual factors which influence motivation to engage. Given the shared experience described by two participants whose motivation was enhanced by recognition of their current life-stage, it may be useful to consider assessing motivational factors to utilise the importance of this driver and it's role in facilitating sustained engagement. Given the emerging evidence indicating the efficacy of group EMDR for C/YP (Beer, 2018 & Jarero & Artigas, 2012) delivering EMDR in a group format for individuals at the same life stage, with shared motivational factors, especially for those reaching the upper age limit for CAMHS, may have positive implications for waiting list pressures. Due to the importance of the parental role for participants in this study with regards to the decision-making process it may also be useful to consider incorporating parental involvement where appropriate when providing education and during the initial phases to enable parents to support with strategy use between sessions.

Recognition that service user involvement, including the views of children, is fundamental for developing person-centred, effective services has been evident for decades within government policies. For example, the Children's Act (1989) and more recently the GIRFEC model (Coles et al., 2016). However, there still appears to be very limited research exploring children's experience of engaging with services, including CAMHS to explore their views of accessing different therapeutic approaches, which would enable comparison with the findings of this study. In recognition of the scarcity of available research there have been calls to refocus on the experience of C/YP and their families who access CAMHS and fully incorporate their views into

service development and improvement strategies (Crosier & Knightsmith 2020; Davison et al., 2017).

Strengths

This is the first study exploring the experiences of C/YP accessing EMDR in CAMHS. It adds to the qualitative findings within the adult literature and offers a qualitative perspective to the growing quantitative field of research exploring the utility of EMDR with C/YP. It highlights areas of common importance within this group, which have clinical implications and indicate service design and delivery opportunities, which are particularly important given the current pressures on CAMHS and increase in referrals (Hansen et al., 2021).

As the researcher is not trained in EMDR and therefore has not used this therapy clinically the risk of bias through clinical experience generating preconceived ideas about how C/YP may experience EMDR was reduced.

Limitations

Given the recruitment difficulties and the type of sampling used, perhaps unsurprisingly, the participants who opted to take part all had, or were having, positive experiences with their clinicians and in general with EMDR. Given that very limited qualitative research with C/YP has been conducted these accounts still provide valuable insight, however it must be noted that to get a full picture of the range of experiences and challenges experienced finding a way to incorporate the voices and opinions of C/YP who have not had positive experiences or outcomes is essential. Marich et al (2020, p. 126) emphasise the importance of this, "Allowing negative material to be analysed and presented is vital for qualitative research to remain credible (Morse et al., 2000), especially when qualitative research can be viewed as non-scientific and inherently biased (Levitt et al., 2018)". Shipley et al (2022) also recommend that exploring negative client experiences is an important area for EMDR future research.

This study attempted to recruit C/YP from the ages of 10 - 19, however the youngest participant was 13 and oldest was 17. This sample may be better described within an 'adolescent' category, and although this enabled the research questions proposed to be answered, future research exploring the experiences of a younger age range is warranted given EMDR is used with very young children and infants (Shapiro et al., 2017).

As discussed, the planned sample size was smaller than initially anticipated, however the sample of four still generated rich experiential accounts which enabled a thorough analytic

process and for a number of relevant and interesting group experiential themes to be generated in line with IPA principles.

Due to the ethical constraints of the study, and the focus being on the C/YPs experience of EMDR regardless of presenting difficulty or reason for referral, there is minimal participant information available. Including this information in future research may be beneficial for clinician's who work with specific client groups to provide them with potentially useful contextual information to inform their practice e.g., demographic information, and psychological/ physical difficulties experienced. A further limitation identified was the lack of information provided about the specific EMDR protocol used. This information would also be beneficial to include in future research to provide context and relevant information to clinicians, but also for research replication purposes.

In this study repeated interviews were not conducted, including these may have generated a richer data set and more in-depth findings. Furthermore, similar findings may have been possible through alternative approaches such as less time intensive qualitative methods, or through surveys and questionnaires. Further research exploring a range of approaches for generating insight into the perspectives of C/YP engaging with EMDR is warranted.

Clinical and Research implications

This study demonstrated the areas which were most impactful for the participants, which provides insight for clinicians and services when considering how to optimise this approach and inform service developments. These insights highlight the utility in offering choice as standard for all C/YP where possible, providing comprehensive psychoeducation about EMDR, emphasising the rationale of the preparation phase and routinely checking understanding as therapy progresses whilst supporting C/YP to navigate the perceived peculiarity of the approach, which may be enhanced by incorporating parental involvement. Considering life stage and motivational factors for waiting list initiatives may be valuable for facilitating successful outcomes and reducing pressure on services.

Future research, utilising qualitative methods to capture the views of C/YP who have had challenging or disappointing experiences with EMDR is essential to fully understand the range of perspectives and identify further areas for improvement. As this is the first study to explore the experiences of C/YP accessing EMDR in CAMHS, further studies are warranted, with particular emphasis on capturing the views across a wider age range.

Conclusion

The valuable insight provided by these accounts offers a richer understanding into the perspective of C/YP who have benefitted from engaging with EMDR within a CAMHS setting. The findings indicate the value C/YP place on the therapeutic relationship, the importance of offering choice and flexibility to ensure individual needs are met, that the perceived benefits take different forms, and that steps should be taken in the initial phases to clarify the importance of preparation and support C/YP to navigate the perceived peculiarity of the approach. Further research exploring the full range of experiences across larger samples including younger participants is recommended.

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Appendices

Appendix 1.1 – Search Strategies

	Ebscohost: MEDLINE	Hits
	03.06.22	
#1	(MH "Eye Movement Desensitization Reprocessing")	333
#2	EMDR OR "EMDR therapy" OR "Eye#Movement Desensiti?ation" OR "Eye#Movement Desensiti?ation and Reprocessing" OR "Eye#Movement Desensiti?ation and Reprocessing Therap*"	760
#3	#1 OR #2	790
#4	(MH "Adolescent") OR (MH "Child Health") OR (MH "Child") OR (MH "Adolescent Health")	3,043,231
#5	Child* OR adolesc* OR infant* OR juvenile* OR minor* OR school* OR p#ediatr* OR teen* OR young* OR youth* OR "young* people" OR "young* person" OR school*	10,116,167
#6	#4 OR #5	10,116,167
#7	#3 AND #6	409

	PubMed	Hits
	03.06.22	
#1	"Eye Movement Desensitization Reprocessing"[Mesh]	336
#2	"EMDR therapy" OR "Eye Movement Desensitization" OR "Eye Movement Desensitization and Reprocessing" OR "Eye Movement Desensitization and Reprocessing Therapy" OR "Eye Movement Desensitisation" OR "Eye Movement Desensitisation and Reprocessing" OR "Eye Movement Desensitisation and Reprocessing Therapy"	861
#3	#1 OR #2	861
#4	"Child Health"[Mesh] OR "Adolescent Health"[Mesh] OR "Adolescent"[Mesh]	2,180,264
#5	Child* or adolesc* or infant* or juvenile* or minor* or school* or pediatr* or Paediatr* or teen* or young* or youth* or young* people	10,159,129

	or young* person or school*	
#6	#4 OR #5	10,159,129
#7	#3 AND #6	445

	Cochrane Library	Hits
	03.06.22	
#1	MeSH descriptor: [Eye Movement Desensitization Reprocessing] this term only	2 Reviews 72 Trials
#2	EMDR OR "EMDR therapy" OR "Eye*Movement Desensiti*" OR "Eye*Movement Desensiti* and Reprocessing" OR "Eye*Movement Desensiti* and Reprocessing Therap*"	36 Reviews 14 Protocols 390 Trials
#3	{or #1-#2}	36 Reviews 14 Protocols 400 Trials
#4	MeSH descriptor: [Child] explode all trees	1262 Reviews 59778 Trials
#5	Child* OR adolesc* OR infant* OR juvenile* OR minor* OR school* OR pediatr* OR paediatric* OR teen* OR young* OR "young* person" OR "young* people" OR youth*	7816 reviews 1730 protocols 488066 trials
#6	{or #4-#5}	7816 reviews 1730 protocols 488066 trials
#7	#3 AND #6	36 reviews 14 protocols 158 trials

	Web of Science 03.06.22	Hits
#1	TS=("EMDR" or "EMDR therap*" or "Eye\$Movement Desensiti?ation" or "Eye\$Movement Desensiti?ation and Reprocessing" OR "Eye\$Movement Desensiti?ation and Reprocessing Therap*")	2,120

#2	TS=(Child* OR adolesc* OR infant* OR juvenile* OR minor* OR school*	11,069,532
	OR p\$ediatr* OR teen* OR young OR youth* OR school*)	
#2		502
#3	#1 AND #2	592

	Francine Shapiro Library (not currently available)	Hits
Key words	Paediatric and Pediatric	8

Appendix 1.2 – Screening Tool

Screening Tool

Informed by Polanin, J. R., Pigott, T. D., Espelage, D. L., & Grotpeter, J. K. (2019). Best practice guidelines for abstract screening large-evidence systematic reviews and meta-analyses. *Research Synthesis Methods*, *10*(3), 330-342.

Review Title

Systematic Review of the Efficacy of EMDR in Paediatric Clinical Health Psychology

Review Questions

1. What is the efficacy of the current evidence available for the use of EMDR with the paediatric Clinical Health Psychology population?

2. What is the methodological quality of the available evidence?

Inclusion criteria

Context: Studies which are exploring the use of EMDR within the Paediatric Clinical Health Psychology population.

	Children and Young People ≤18 years old, who have accessed EMDR in
Population:	relation to a physical illness, health conditions, injury or related difficulty,
	which requires or required input in medical settings and would fit the remit
	of Paediatric clinical health psychology services.
Intervention:	Eye movement Desensitisation and Reprocessing Therapy
Comparator/control:	Alternative to EMDR (Treatment as usual/alternative therapeutic
	approach/waiting list).
Outcome:	Objective or subjective reports/measures of improvement in
	functioning/quality of life/symptom reduction.

- Journal article published in a peer reviewed journal
- Written in English
- Children and adolescents (aged 18 and below) including LD/CEYP/Neuro populations
- Evaluating EMDR in the context of paediatric clinical health psychology e.g. C/YP who have physical illness, chronic health conditions or injuries, which requires or required input in medical settings and would generally meet the criteria for accessing support from a Paediatric Health Psychology service.
- Methodology Randomized controlled trials, non-randomized studies, quantitative, descriptive studies, mixed methods studies and case studies.
- Articles published from 1987 present.
- Any format e.g., face to face, remote, phone interventions/individual and group

Exclusion Criteria

• Review articles or non-empirical research e.g., Letters, books, book chapters, editorials, conference paper, poster, commentaries/descriptions, reports, unpublished theses, policy documents or protocols., books, book chapters, editorials and conference paper.

• No data, preliminary data or qualitative data

Screening Form

Stage 1: Title and abstract screening

Title
Include:
Articles exploring the use of eye movement desensitisation and reprocessing therapy with children
and young people (≤18 years old).
Title contains:
- FMDR / Eve Movement Desensitisation Therapy / Eve Movement Desensitisation and
Reprocessing therapy / Eye Movement and Densensitisation and Processing therapy
AND
Child / Children / Adolessense / Adolessent / Infant / Iuvenile / Miner / School / Daodiatric /
- Child / Children / Adolescence / Adolescen
AND
- Indicates that the study includes participants who have physical illness, chronic health
conditions, injuries, or related difficulties, which requires or required input in medical
Clinical Health Psychology service.
Exclude:
Title contains:
- Clearly states Qualitative [only]
- Clearly states adults [only]

Title and Abstract Inclusion checklist

Y = Yes, N = No, U = Unclear, E = Exclude (tick the box which applies)

- If a box with ${\ensuremath{\mathsf{E}}}$ is ticked stop screening and move to the 'Decision' table.

- Questions can be answered in any order.

Criteria		Y	N	U	Notes	
Article	Article characteristics					
1.	Is the study published in English?		E			
2.	Is the study published in a peer-reviewed journal?		E			
3.	Is this non-empirical research, i.e. one of the following: Letters, books, book chapters, editorials, conference paper, poster, commentaries/descriptions, reports, unpublished theses, policy documents or protocols.	E				
4.	Is this a review?	E				

5.	Is the study using empirical quantitative or mixed methods research methodology?		E		
Participants					
6.	Does it involve humans?		Ε		
7.	Does it include only adult participants (over 18 years of age)?	E			
8.	Does it include participants who have physical illness, chronic health conditions, injuries, or related difficulties, which requires or required input in medical settings and would generally meet the criteria for accessing support from a Paediatric Clinical Health Psychology service.		E		
Intervention/Exposure					
1. Reproce	Does the study involve Eye movement desensitisation and essing therapy?		E		

Decision:	Y	N
The article should be excluded:		
- A box marked 'Exclude' has been ticked.		
- Please provide an exclusion reason on Rayyan.		
The article should be brought forward for full text screening:		
- No 'Exclude' boxes have been ticked.		

Second reviewer

Stage 2: Full-text Screening

- Clarify any items that were marked as 'Unclear' at stage 1 – title and abstract screening.

Decision:	Y	N
The article should be excluded		
- A box previously marked 'Unclear' has now been identified as 'Exclude'.		
- Please provide a reason for exclusion on Rayyan.		
The article should be included in the review		
-No 'Exclude' boxes have been ticked.		

Second Reviewer.

Appendix 1.3 - Critical Appraisal Tool

Crowe Critical Appraisal Tool (CCAT) Form (v1.4)

Reference

Reviewer

This form must be used in conjunction with the CCAT User Guide (v1.4); otherwise validity and reliability may be severely compromised.

									Year
Research design (add if	not listed)								
Not research	Article Editorial	Report Op	oinion Guidelin	ne Pamphlet					
Historical									
Qualitative	Narrative Pheno	omenology Et	thnography Gr	ounded theory	Narrative case	study			
Descriptive, Exploratory,	A. Cross-sectional	Longitudinal	Retrospective	Prospective	Correlational	Predictive			
Observational	B.Cohort Case-	control Surve	y Developme	ntal Normative	Case study		A		
	True experiment	Pre-test/post- Placebo contr	-test control grou olled trial	up Solomon fou	r-group Post	-test only control gro	up Randomise	ed two-factor	
Experimental	Quasi- experiment	Post-test only Separate sam	Non-equivale ple pre-test post	ent control group -test [no Control]	Counter bala [Control]	nced (cross-over) N	Iultiple time ser	ies	
	Gingle system	One-shot exp Within subject	erimental (case s ts (Equivalent tir	study) Simple tin	me series On sures, multiple	e group pre-test/post treatment)	-test Interact	tive Multiple baseline	e
Mixed Methods	Action research	Sequential C	oncurrent Tra	nsformative		1999 - 1999 - 1999 - 1999 - 1997 - 19			
Synthesis	Systematic review	Critical review	w Thematic sy	nthesis Meta-et	thnography	Narrative synthesis			
Other									
Variables and analysis	0								
Intervention(s), Trea	atment(s), Exposu	re(s)	Outcome(s)	, Output(s), Pred	dictor(s), Mea	asure(s) Data	analysis meth	iod(s)	
Sampling									
	Group 1								
Total size		L	Group 2		Group 3	G	roup 4	Control	
		L	Group 2		Group 3	G	roup 4	Control	
Population.			Group 2		Group 3	G	roup 4	Control	
Population,			Group 2		Group 3	G	roup 4	Control	
Population, sample, setting			Group 2		Group 3	G	roup 4	Control	
Population, sample, setting			Group 2		Group 3	G	roup 4	Control	
Population, sample, setting Data collection (add if n	ot listed)		Group 2		Group 3	C	roup 4	Control	
Population, sample, setting Data collection (add if n a) Pr	ot listed) imary Secondary	· · · · ·	Group 2		Group 3	a) Formal Inform	roup 4 nal	Control	
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) A	ot listed) imary Secondary uthoritative Partis	 an Antagonis	Group 2		Group 3	a) Formal Inform v b) Structured Se	roup 4 nal mi-structured	Control	
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) An c) Lit	ot listed) rimary Secondary uthoritative Partis terature Systemat	 san Antagonis tic	Group 2		Group 3	a) Formal Inform w b) Structured Se c) One-on-one (roup 4 nal mi-structured Group Multip	Control	
Population, sample, setting Data collection (add if n Audit/Review b) Au c) Lit	ot listed) imary Secondary uthoritative Partis terature Systemat articipant Non-pan conject	 san Antagonis tic rticipant	Group 2		Group 3	a) Formal Inforr w b) Structured Se c) One-on-one (a) Standardised	nal mi-structured Sroup Multip Norm-ref Cri	Control	
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) Au c) Li Observation b) St c) c)	ot listed) imary Secondary ithoritative Partis terature Systemat articipant Non-par ructured Semi-str wert Cardid	 san Antagonis tic rticipant ructured Unst	Group 2 st		Group 3 Interview Testin	a) Formal Inforr v b) Structured Se c) One-on-one 4 a) Standardised g b) Objective Sul	nal mi-structured Group Multip Norm-ref Cri ojective	Control	
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) Au c) Li Observation b) St c) Co	ot listed) imary Secondary ithoritative Partis terature Systemat articipant Non-par ructured Semi-str overt Candid	 san Antagonis tic rticipant ructured Unst	Group 2 st		Group 3 Intervieu Testin	a) Formal Inforr v b) Structured Se c) One-on-one 4 a) Standardised g b) Objective Sul c) One-on-one 4	nal mi-structured Group Multip Norm-ref Cri Jjective Group Self-ad	Control Unstructured le Self-administered terion-ref Ipsative ministered	m
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) Au c) Li Observation b) St c) Co Scores	ot listed) imary Secondary ithoritative Partis terature Systemat articipant Non-par ructured Semi-str overt Candid	 san Antagonis tic rticipant ructured Unst	Group 2 st		Group 3 Interview Testin	a) Formal Inforr v b) Structured Se c) One-on-one 4 a) Standardised g b) Objective Sul c) One-on-one 4	nal mi-structured Group Multip Norm-ref Cri Jjective Group Self-ad	Control Unstructured le Self-administered terion-ref Ipsative ministered	
Population, sample, setting Data collection (add if m Audit/Review b) A c) Li Observation b) St c) Co Scores Preliminaries	ot listed) imary Secondary uthoritative Partis terature Systemat articipant Non-paa ructured Semi-str overt Candid	 san Antagonis tic ructured Unst Design	Group 2	Data Collection	Group 3 Interview Testin	a) Formal Inform v b) Structured Se c) One-on-one (a) Standardised g b) Objective Sul c) One-on-one (Result	roup 4 nal mi-structured Group Multip Norm-ref Cri Jjective Group Self-ad	Control Control Unstructured le Self-administered terion-ref Ipsative ministered Total [/40]	
Population, sample, setting Data collection (add if n a) Pr Audit/Review b) Ar c) Lit Observation b) St c) Co Scores Preliminaries	ot listed) imary Secondary uthoritative Partis terature Systemat articipant Non-par ructured Semi-str avvert Candid	 san Antagonis tic rticipant ructured Unst Design	Group 2	Data Collection	Group 3 Interview Testin	a) Formal Inforr b) Structured Sec c) One-on-one 4 a) Standardised g b) Objective Sul c) One-on-one 4 Result	roup 4 nal mi-structured Group Multip Norm-ref Cri Jjective Group Self-ad	Control Unstructured le Self-administered terion-ref lpsative ministered Total [/40]	1

General notes

Appraise research	on the merits of the resear	rch design used, not	t against other re	esearch designs

	Approver escaren en ale mentes en are rescaren design ased, not against enter rescaren designs.			
Category	Item descriptors	Description	Score	
Item	[Present; Absent; ■Not applicable]	[Important information for each item]	[0-5]	
1. Preliminaries				
Title	1. Includes study aims 🖵 and design 🖵			
Abstract	1. Key information 📮			
(assess last)	2. Balanced Dand informative D			
Text	1. Sufficient detail others could reproduce 📮			
(assess last)	2. Clear/concise writing 🖵, table(s) 🖵, diagram(s) 🖵, figure(s) 🗖			
		Preliminaries	/5]	

2. Introduction			
Background	 Summary of current knowledge □ Specific problem(s) addressed □and reason(s) for addressing □ 		
Objective	1. Primary objective(s), hypothesis(es), or aim(s) 2. Secondary question(s)		
	Is it worth continuing?	Introduction [/5]	

3. Design		
Research design	1. Research design(s) chosen □ and why □ 2. Suitability of research design(s) □	
Intervention, Treatment, Exposure	 Intervention(s)/treatment(s)/exposure(s) chosen □and why □ Precise details of the intervention(s)/treatment(s)/exposure(s) □for each group □ Intervention(s)/treatment(s)/exposure(s) valid □and reliable □ 	
Outcome, Output, Predictor, Measure	1. Outcome(s)/output(s)/predictor(s)/measure(s) chosen and why 2. Clearly define outcome(s)/output(s)/predictor(s)/measure(s) 3. Outcome(s)/output(s)/predictor(s)/measure(s) valid and reliable	
Bias, etc	 Potential bias □, confounding variables □, effect modifiers □, interactions □ Sequence generation □, group allocation □, group balance □, and by whom □ Equivalent treatment of participants/cases/groups □ 	

	Is it worth continuing?	Design [/5]	
4. Sampling			
Sampling method	1. Sampling method(s) chosen 🗖 and why 🗖 2. Suitability of sampling method 📮		
Sample size	1. Sample size D, how chosen D, and why D 2. Suitability of sample size D		
Sampling protocol	Target/actual/sample population(s): description □and suitability □ Participants/cases/groups: inclusion □and exclusion □criteria Recruitment of participants/cases/groups □		
	Is it worth continuing?	Sampling [/5]	

5. Data collection		
Collection method	1. Collection method(s) chosen and why a 2. Suitability of collection method(s)	
Collection protocol	1. Include date(s) , location(s) , setting(s) , personnel , materials , processes 2. Method(s) to ensure/enhance quality of measurement/instrumentation 3. Manage non-participation , withdrawal , incomplete/lost data	

	Is it worth continuing?	Data collection [/5]
6. Ethical matters		
Participant ethics	1. Informed consent 🗅 , equity 🗖 2. Privacy 📮 , confidentiality/anonymity 📮	
Researcher ethics	 Ethical approval □, funding □, conflict(s) of interest □ Subjectivities □, relationship(s) with participants/cases □ 	
	Is it worth continuing?	Ethical matters [/5]

7. Results			
Analysis, Integration, Interpretation method	A.I.I. method(s) for primary outcome(s)/output(s)/predictor(s) chosen and why 2. Additional A.I.I. methods (e.g. subgroup analysis) chosen and why 3. Suitability of analysis/integration/interpretation method(s)		
Essential analysis	Flow of participants/cases/groups through each stage of research □ Z. Demographic and other characteristics of participants/cases/groups □ Analyse raw data □, response rate □, non-participation/withdrawal/incomplete/lost data □		
Outcome, Output, Predictor analysis	Summary of results □ and precision □ for each outcome/output/predictor/measure Consideration of benefits/harms □, unexpected results □, problems/failures □ S. Description of outlying data (e.g. diverse cases, adverse effects, minor themes) □		
		Results [/5]	

		Kesuits [/5]	
8. Discussion			
Interpretation	I. Interpretation of results in the context of current evidence □ and objectives □ Z. Draw inferences consistent with the strength of the data □ S. Consideration of alternative explanations for observed results □ 4. Account for bias □, confounding/effect modifiers/interactions/imprecision □		
Generalisation	 Consideration of overall practical usefulness of the study Description of generalisability (external validity) of the study 		
Concluding remarks	Highlight study's particular strengths □ Suggest steps that may improve future results (e.g. limitations) □ Suggest further studies □		
		Discussion [/5]	

9. Total		
Total score	1. Add all scores for categories 1–8	91

Appendix 2.1 – MRP Proposal

The MRP Proposal can be accessed at: <u>https://osf.io/ez8md</u>

Appendix 2.4 - Participant Information Sheet

The participant information sheet can be accessed at: <u>https://osf.io/73m98</u>

Appendix 2.5 – Consent Form

The consent form can be accessed at: <u>https://osf.io/a2kp3</u>

Appendix 2.6 – Interview Schedule





Interview Schedule - Version 3 (30.06.22)

Title: Exploring the Experiences of Children and Young People Engaging with Eye Movement Desensitisation and Reprocessing Therapy (EMDR) within a Child and Adolescent Mental Health Service (CAMHS).
Researcher: Sophie Little

To note: Language will be adjusted appropriately based on the age/ability of the C/YP.

Intro:

- Introduce myself and my role as researcher/trainee clinical psychologist.
- Thank participant for taking part.
- Go through the Participant Information Sheet and check participant's understanding of the study, explain about confidentiality/limits to this and participant anonymity.
- Remind participant that they can take a break at any point during the interview, and that they can withdraw from participation at any point.
- Confirm that their withdrawal from the study and their answers to the questions today will not have any impact on any current or future input they
 receive from the service.
- Provide opportunity for participant to ask any questions before starting.
- Obtain informed consent/assent.

Today's questions are about trying to get an understanding from you about what it was/is like engaging with EMDR. I won't be asking about why you needed support from the service, but I'm aware that from us talking about the EMDR it may bring up some difficult thoughts and feelings. If that happens you can let me know and we can take a break.

Context

When did you have your EMDR sessions?

Did the sessions all take place at the Phoenix centre? (If not ask questions later in interview about impact of remote appointments)

Interview Schedule: Version 3 (30/06/22)

Title: Exploring the Experiences of Ch1dren and Young People Engaging with Eye Movement Desensitisation and Reprocessing Therapy (EMDR) within a Child and Adolescent Mental Health Service (CAMHS). (RAS Project ID: 902285

Prior to therapy
Can you remember what you thought when your clinician first mentioned EMDR? Were you given an option at the start? (If unsure - can explain what the
possibilities might have been e.e. CBT).
How was it explained?
How did you choose?
Had you based of SMDR before?
Had you heard of Ewick before:
How did you feel about trying this type of therapy?
Therapy (process and content)
Was there anyone other than yourself and your therapist involved in your EMDR sessions (e.g. parent/carer)?
What do you remember about the sessions? (hroad question - narrow based on answer)
Preparation stage: Can you remember what you did in sessions before starting the 'bilateral stimulation'? (Use language/terminology C/YP has used).
- Prompts may be required about safety/stabilisation/grounding techniques
······································
- Helnful? Still make use of them?
Can you comparison whereas the sense to set a stars a stars a stars a stars a
- can you remember why your therapist asked you to do these things:
(if bilateral stimulation not already mentioned by participant)
What do you remember about the tapping/finger movement/butterfly taps part of the sessions?
- Can you remember why you were asked to do this with your therapist?

Interview Schedule: Version 3 (30/06/22)

Title: Exploring the Experiences of Children and Young People Engaging with Eye Movement Desensitisation and Reprocessing Therapy (EMDR) within a Child and Addescent Mental Health Service (CAMHS).

Any other techniques used? (Eg. drawing/writing things down, flash technique, future template)
(Helpful?)
How did you manage between sessions? (Prompts: tired following sessions? Grounding techniques? Talk to family/friends? Etc)
What was your experience of working with your therapist?
(Anything they did that was helpful?)
(Anything that you wish they had done differently?)
Evaluation/understanding of EMDR
What parts of this therapy, if any, did you find useful? (Prompt: Why/in what way?)
(Younger age: What parts did you like about it?)
What parts of this therapy, if any, did you find challenging/difficult?
(Younger age: What parts didn't you like about it?)
Is there anything you would have changed about the process?
(Younger age: Is there anything you wish had been different?)
Do you think you benefitted from EMDR?
(Younger age: Are you glad you had EMDR?)
Would you recommend EMDR to a friend? (Why/Why not?)
How would you explain to someone else what EMDR is/involves?
Remote sessions
If some/all appointments were remote: What was your experience of having EMDR sessions remotely? (Positive aspects/challenging aspects)
Ending
Is there anything you think is important that we haven't spoken about today?

Interview Schedule: Version 3 (30/06/22)

Title: Exploring the Experiences of Children and Young People Engaging with Eye Movement Desensitisation and Reprocessing Therapy (EMDR) within a Child and Adolescent Mental Health Service (CAMHS). IRAS Project ID: 302285

Do you have any questions that you would like to ask?

Debrief/Information provided about additional support if required following interview.

Examples of general prompts that can be used when appropriate during the interview:

- Can you tell me a bit more about that?
- What was that like for you?
- What did you think about that?
- How did you feel about that?
- Could you give me an example?
- What do you mean by...?

Interview Schedule: Version 3 (30/06/23) Title: Exploring the Experiences of Children and Young People Engaging with Eye Movement Desensitisation and Reprocessing Therapy (EMDR) within a Child and Adolescent Mental Health Service (CAMHS). IRAS Project ID: 302285

Appendix 2.7 – Examples of the analytic process

Transcription excerpt (Rory): Step 1 and 2 - Immersion in the data to first assign exploratory notes (right) and then identify personal experiential statements (left).

2	-		
Clinicians behaviour in relation to YP makes her trust her.	##	P: Mostly just how she acts around me, that is like, you know, like when you like trust someone, yeh it's aura, if that makes sense and then what she savs, I don't know what she savs (thinking pause).	Most helpful aspect is how clinician acts around YP. Trusts her as a person? (aura?)
Takes the time to ask YP what they think and validates view point.	##	she normally like asks and she's like always agreeing with me as well if I say something and she's like that shouldn't be happening and like you're okay, basically, like, sometimes that is going to happen,	Validation of YPs experience (on her side? In her team?)
Clinician is honest about the challenges YP will face engaging with therapy and the reality of the long-term impact of	## ## ##	she says, like, stuff that is like, real, you know what I mean? Like she says, but like that is going to happen, like, you are going to think about it sometimes and then some people are just like, yeah, you'll just like forget about it, whereas she's like no, you are going to think about it some days (gentle laugh).	Is honest with YP about challenges. Is real with her, which is different than how other people can be about her traumatic experience.
her trauma.	311		
Clinician's honesty is a welcome change from her interactions with other people in relation to her	312	I: DK, so you used a word there, real, so could you describe what you mean a bit more about that, because that's a great word to use.	Doesnit just tell her what she wants
trauma.	313 314	P: So a lot of people just tell me what I want to hear and she sometimes tells me, like, what is actually going to happen. Because people are telling me, like, you just can't forget that after, like	to hear. Is honest about what is going to happen. That there will be ups and downs that come with
	315	therapy and all that, they're like, no, like, she's like, telling me like,	therapy, her trauma won't just be
	010	no, like you're not gonna just like forget about it. Like it's gonna have like a lot of ups and downs while you're doing this basically.	forgotten about
	316	like a locor ups and downs while you're doing this basically.	
	317	I: OK, so kind of like a genuineness?	
	318	P: Yeah, genuine, yeah. I: So, comothing about the way she pots in relation to you is	Genuine (not YPs language)
	319	particularly helpful. What about when you're doing the the clapping	
	##	and things, is there anything that she's doing then that you find auite helaful?	
Calmness of clinicians tone helpful.	321		Clinician speaking calmly is helpful.
YP surprised/confused that clinician able to correctly assess her emotional state from only	##	P: No, just how she speaks calmly, I don't know, sometimes if she like sees that I'm struggling she will tell us to stop. Like I don't know how she sees it (laughs), but she does, and she's like okay we'll have a break [name].	Clinician being able to tell when YP is struggling and stop and take a break is helpful.
her facial expression/posture.	##		YP not sure how clinician is able to tell.
	##	I: That's interesting so you're not sure how she knows you need to take a break?	
	##	P: Yeah, at the end of the session she'll say like you did this and that and I'm like, (laughs) and it gets me so confused.	YP confused by clinician being able to tell from her body/behaviour how she was feeling?
	##		
	##	I: OK, so are you OK, tell me a little bit more about what type of things do you think she's seeing?	
	##	P: I don't know, like last time I was like, way more calmer than usual	Lan tell her emotional experience from observing her face/body?
	##	and she was like, yeah, I could see that in your face that you were	_
	##	more calmer, like, from last time and I didn't know she could see from last time either, that I was a bit wary, I don't know.	
	331	I: OK, so something about your face is	
	##	P: Yeah she can just tell.	She can just tell - look deeper.
Clinician's accurate assessment of her emotional state without her having to verbally communicate how she's feeling makes her feel	##	I: Okay and what do you make of that like	
that the clinician	##	P: Yeah, I think that she actually understands me, by just looking at	This makes the YP feel understood.
understands her.		my posture or whatever.	

Step 3: Development of Personal Experiential Themes from personal experiential statements (example from Taylor's analysis).

PET	A. FACILITATING ENGAGEMENT BY MEETING YPs NEEDS		
Subtheme	A.1 Comfort is key		
Experiental Statement	Recognition of impact of the pandemic on discomfort attending in-person		
	"Well, not all the time since the pandemic, I wasn't comfortable with going in so ever		
Quote	since then I've been doing it virtually ." (Line 97)		
Experiential Statement	Allowing YPs pet to attend in-person sessions.		
Quote	"Yeah, sometimes they allowed her to be in the Phoenix Centre with us, it was quite nice as well".		
	"Well she sat there, she loves, she's basically very comforting. We sometimes bring,		
	uhh well I can't say it, but T-R-E-A-T-S into the session to keep her interested. (Line 180)		
Experiential Statement	Providing multiple 'comfort' strategies to help YP manage their distress.		
Quote	"Like, uh, we had pictures, I had pictures of family and stuff like that. I also had fidget toys, I have a box, a box of stuff that I like. One of them is actually a picture of us in [location], in my comfort places". (Line 204)		
	"Well, this is just to comfort me because sometimes it goes over quite distressing		
	topics, so it's basically just being quite a lot of help with it (Line 220).		
	Taking account sensory needs to facilitate comfort		
	"I had that [sensory objects] in session because I felt like I it basically helps two things, one with stress and two because I feel like I have a need to fidget with stuff sometimes. I'm quite fidgety (Line 429). "It was a comfort." (Line 446).		
	Tapping action has become source of comfort distinct from the EMDR process.		
	"Well, when it isn't going so well, it depends on how bad it is, sometimes I do the tapping at night time when I get nightmares" (Line 352).		
Subtheme	A.2 Enabling remote appointments in line with YPs preference		
Experiental Statement	Preference for remote sessions from home supported		
Quote	"Prefer doing it at home actually." (Line 119)		
Experiential Statement	Being at home made YP more comfortable during appointments		
Quote	"Well I was quite comfortable with it because I'm in my house as well, so it's quite a comforting place, so I quite liked doing it virtually."		
Experiential Statement	Remote sessions easier due to familiarity of remote schooling.		
Quote	"since I do online schooling like it's quite, I'm quite used to doing stuff on the screen."		
Subtheme	A.3 Providing Choices within the therapy		
Experiental Statement	Bi-lateral stimulation choice		
Quote	"I preferred the tapping." ("I don't remember much about the eye stuff."		

Step 4: Developing Group Experiential themes through cross case analysis. Examples of clustered colour coded quotes.

C. OPTIONS AND CHOICE TO TAILOR EMDR TO ENSURE NEEDS ARE MET C.1 Offering choice around format (in-person or online) - offering flexibility in relation to changing needs.

"Well, not all the time since the pandemic, I wasn't comfortable with going in so ever since then I've been doing it virtually." (Line 97)

"Well I was quite comfortable with it because I'm in my house as well, so it's quite a comforting place, so I quite liked doing it virtually." "I just kind of wanted to wait till after everything came back into person, I didn't want to do it online really...I'm not sure, I think I just thought that it would maybe work better" (Line 30).

"I find it quite difficult to focus during, because I've got quite short attention span when it comes to phone calls and I'll just end up being quite distracted" (Line 42).

C.2 Offering options and choice in relation to bi-lateral stimulation approach (offering flexibility as needs may change across appointments).

"There's the clicky-clap thing, which we didn't do because I didn't want to do it to be honest, I would get distracted, I can't multi-task like that." (Line 222)

"I just said to her see when we're doing this can we just have them exact, like, I mean can we get like a ruler and full-blown do this (laughs). And she was like yeh I can get you a ruler so we can have it sorted and then like she'd have me sit and make sure I was happy". (Line 451).

"I can't really visualise it when I'm doing other stuff, like I can't really focus on the thought (Line 271), adding "I was looking basically at [clinician], I could see her face and then I was looking at her and it like hurt my eyes at the same time, 'cause it was so fast. So, I don't know, it was just too much all at once" (Line 277).

C.3 Pacing played a central role (control/agency)

"I just say that I just can't do it like I'm too mentally exhausted" (Taylor, line 299).

Appendix 2.8 – Example from Reflective Log

Reflections immediately following nd interview . Y/P came across as younger than chronological age - required quick adjustment to interaction style, language level of reassurance / encouragement provided . YP 1 anxiety. Wondering why they chose to take part given their difficulties with this, What were the motives? Altruism? Want to give feedback? Please their dinician - Found it tricky to navigate the wanting to know about the YPs experience of EMDK but not the reasons for referral aspect timore difficult to manage than the last interview. Sensitivity around what YP comfortable sharing required. Had be careful that Thad my etmi tesearcher, not dividian hat on hocation ne doing interview's where Usually see dients and YPs anxiety contributed to this. Different feel to this interview as DR BESSIONS current, not completed