

<b>Dissertation</b>	
MODULE U42599	<b>DOUBLE MODULE</b>
<b>Title: The role of Occupational Therapy in treating school-aged children with a diagnosis of Post Traumatic Stress Disorder (PTSD) as perceived by paediatric occupational therapists.</b>	
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## **Chapter 1: Introduction to the research proposal**

This chapter will provide an overview regarding the current setting of where the interest for this research proposal arose. Post Traumatic Stress Disorder (PTSD) will then be explained in further detail regarding the population of school-aged children. Some current government reports and legislation concerning PTSD in children are discussed, the role of paediatric occupational therapy (OT) explained and the term school functioning is defined. Finally the aims of this proposal will be explained with a brief description of the methodology.

### **1.1 The setting**

#### *1.1.1. Current knowledge of PTSD in children*

PTSD is defined as a stress reaction that occurs in some individuals following an exposure to traumatic events or a traumatizing situation (The American Psychiatric Association, APA, 2000). Many studies that have explored PTSD have been undertaken with adults (NICE guideline for PTSD, 2005). However, more recently PTSD symptoms have been recognised in children, too. This is evident in the British National Survey of Mental Health (Meltzer et al, 2000). This survey reported that out of 10,000 children and young people, 0.4% of children aged 11-15 were diagnosed with PTSD. Below 10 years of age, full diagnosis of PTSD was rarely reported. PTSD can be result of domestic violence; abuse; life threatening illness or medical procedure; warfare; divorce; loss and bereavement: experiences, which children all over the world are objected to.

The most common categories of post traumatic stress symptoms are:

- Feelings of re-experiencing the traumatic event. For example, having flashbacks and nightmares.
- Avoidance or numbing in a situation that reminds the person of the event. For example, refusing to go back to the area of the traumatic situation; feeling numb when hearing and talking about the event; feeling of disintegration of mind and body in a situation that reminds the person of the event.
- Increased arousal. For example, being startled due to certain noises or sensitivity to touch.

(APA, 2000: Diagnostic and Statistical Manual of Mental Disorders, DSM-IV, Text Revision).

The requirements for full diagnosis of PTSD in a child, according to DSM - IV, are that s/he must exhibit at least one re-experiencing symptom, three avoidance/numbing symptoms and two increased arousal symptoms. Some previous community studies, described by Ollendick & Schroeder (2003), claim that diagnosing PTSD is difficult in young children due to their limited verbal capacity and more complex presentation of symptoms. They further suggest that although the majority of traumatised children are not fully diagnosed with PTSD, the symptoms of PTSD are common among children exposed to trauma. These symptoms inevitably affect the child's perception, concentration, productivity and behaviour, which in turn impact on the child's performance in all areas of functioning in both home and school environment (Rothschild, 2003).

### *1.1.2. Current reports and legislation concerning PTSD in children*

It has long been recognised (Clancy & Clark 1990) that a child living in a disadvantaged environment, where a number of complex conditions, such as unemployment, poverty and substance misuse interact, is more likely to experience or witness traumatic experiences such as family violence and abuse. The Department for Children, Schools and Families (DCSF, 2008) reported in the Foundation Stage Profile Results that children in the most disadvantaged local authorities in England progress less well at school than the children living in better environments. According to the report, only 38% of children from the most deprived geographical areas in England achieved a good level of development in the following areas of functioning: personal, social and emotional development; communication; language and literacy, compared to 54% of children from the rest of England achieving a good level of development in these areas. Hence, it appears to be difficult for children from disadvantaged background to keep up with their peers in development without extra support.

The White Paper, *New opportunities* (2009), concerning fair changes for schooling and employment in Britain, declares that the government has recognized that success in school remains one of the most important determinants of future success. The White Paper is set to ensure generations have the opportunity to realise their potential and improve their position in society by equipping young people to cope in life and to fulfil their potential. This paper asks professionals who work with children at school to ensure that each pupil gets the support they need to take the next step forward. It further suggests that professionals working with school-aged children should form a close-knit support network for children and their families. However, this paper does not describe which professionals have a role in forming the support network and what actions these professionals should make.

### *1.1.3. The role of paediatric OT and definition of school functioning*

Occupational therapy (OT) is a profession supporting and enabling people with dysfunction or disability to participate in the everyday life activities that the person finds meaningful and purposeful. By enabling people to do things that will enhance their ability to participate or by modifying the environment to better support participation, occupational therapists assist individuals in gaining the level of functioning that is most desirable to them (World Federation of Occupational Therapists, 2004). OT intervention in school-aged children includes occupational therapists directly meeting with the child, consulting the school professional or monitoring a planned programme carried out by school staff. Depending on the nature of child's deficit and available resources, the intervention may focus on reframing the teacher's perspective, improving the student's skills and adapting the task, environment or routine to facilitate the child's maximum level of functioning at school (Case-Smith, 2001).

School functioning is a broad term used by teachers and health care professionals working with school-aged children. According to Cronin & Mandich (2004), school functioning consists of the following performance areas:

- School work, which can be further divided into tasks of handwriting or other fine motor activities, reading and mathematics, sports or physical education and homework.
- Self-care and self maintenance activities, such as toileting, feeding and dressing.
- Leisure and social playing activities, which usually take place at school during break and lunch times.
- Rest and relaxation, which may occur at school while students are not engaged in other activities.

School functioning is one of the areas that occupational therapist would consider when working with school-aged children with physical or mental health needs (Rodger & Ziviani, 2006).

## 1.2. The summary of the setting

To summarise, PTSD affects the individual's perception, concentration, productivity and behaviour, which in turn affects their performance in all areas of functioning. There is now evidence to understand PTSD in children but it remains difficult to diagnose PTSD in children under 10 years old. Children in poorer areas are likely to experience more trauma, and the government has recognised that children from these areas are less likely to perform well at school. School staff and health professionals should work together and form a supportive network for these children and their families to help children function at school successfully. OT in children addresses deficits in functioning through intervention that uses occupation as a mean to improve performance and participation. However, the research in this area for OT, like for any other health profession, is necessary. "Research gives clients and the public reason to have confidence in OT... (and) provides the rationale for administrators and policymakers to support the occupational therapy services (Kielhofner, 2006:p. 7)."



### **1.3. The aims of the proposal**

Considering the above, this research paper aims firstly to discover the effects of PTSD in school-aged children's (8-12 years) school functioning. It will also consider the treatment they receive for PTSD symptoms. This is achieved by systematically reviewing the literature and discussing the findings in a thematic manner.

The second aim is to propose a research project that explores the perceptions of paediatric occupational therapists regarding their role in treating school-aged children (8-12 years) with PTSD. The proposal suggests that a qualitative methodology with phenomenological approach will be used to conduct the research. Arising from philosophy and methodology, phenomenology provides a framework to encounter participants' perspectives of the phenomena (Munhall, 1994). By using this approach facilitated by semi-structured interviews, the phenomenon of treating children with PTSD as occupational therapists will be understood best. Data would be collected by interviewing paediatric occupational therapists across a minimum of 3 NHS mental health trusts in order to represent a wider geographical area.

## **Chapter 2: Review of the literature**

### **2.1. Introduction to the literature review**

This chapter will discuss the current literature concerning treatment of PTSD symptoms in school-aged children. Effects of PTSD in children's school performance are also discussed. Firstly, the method of systematic literature search is described and the appraising of included studies explained. Secondly, the four main themes emerging from the literature are listed and then discussed in further detail. Finally, the need for further research is explained and research question for the proposal with objectives are outlined.

## 2.2. Method of searching

A systematic review was undertaken in September 2008, and further updated in January 2009 to include all studies of PTSD-diagnosed children's school performance and both psychological and OT treatments for PTSD symptoms.

A search was carried out using 6 bibliographic databases relevant to the topic: AMED: allied and complementary medicine, CINAHL, Cochrane Library, MEDLINE, ERIC: Education Resources Information Centre, PsycINFO and The PILOTS Database: An Electronic Index to the Traumatic Stress Literature. The following search terms were used and the "wildcard" function (\*) was applied to include all the forms of the terms:

1. Child\*/ School-age\*
2. PTSD\*/Post-Traumatic-Stress-Symptom\*
3. Rehab\*/Treat\*/Intervention\*
4. OT\*/Occupational Therap\*
5. School-function\*/ School-perform\*

A hand-search of the *British Journal of Occupational Therapy* for the year 2008 was carried out. In addition, references from all the found articles were tracked in an attempt to recover other related primary studies. 16 studies were found through this search method. The precise search progress is described in appendix 1.

According to LoBiondo-Wood (2006), systematic reviews should mainly use primary investigations (reports from the first author, who conducted the study or developed the theory, for example) that address the review's question. To be included in this review, the studies were peer reviewed and clearly explain their experimental design, or systematically review experimental studies to further guide the design of the research proposed here. The inclusion criteria consisted of studies 2000-2009, as the text revision of the DSM-IV called DSM-IV-TR was

published in May 2000 and added more specific diagnostic guidelines for PTSD in children, than the previous version (DSM-IV-TR, no date). Included studies also focused on school-aged children with a diagnosis of PTSD or PTSD-symptoms, OT or other intervention and exploration of their school functioning. These criteria were set to keep the focus on the specific interest area of the topic. Studies that were not originally written in English were excluded in order to avoid confusion in translation. Also studies that compared treatment of PTSD-symptoms with other mental health problems were excluded along with studies that explored treatment of children who had prenatal traumas or developmental delays due to reasons other than traumatic experience. By doing this, the cross-over between symptoms of these conditions and PTSD was avoided. Altogether 8 studies passed both inclusion and exclusion criteria and were subjected to detailed appraisal. Appendix 2 lists all included studies giving details of the paper's level of evidence, authors and year of publishing, sample size, intervention, main results and study participants.

The quality of included studies in this review was assessed using the Critical Appraisal Skills Programme (CASP), which is a set of questions adapted from research guides (Guyatt et al, 1993 & Oxman et al, 1994) by the Public Health Resource Unit (PHRU, 2006). This system considers methodological rigor of trials as well as the clinical applicability of the outcomes. The studies are scored on the scale of 1-10, the higher score indicating better value. The studies included in this review are of a generally high quality having CASP scores within the range of 7-10.

For an example of the critique of a quantitative study and a systematic review included in this review see appendix 3. The rest of the critiqued studies are listed in appendix 4 with their CASP score and a summary of the main points that arose in the critiquing process. The emerging themes of the studies are discussed below.

### 2.3. Themes

Following a review of the evidence concerning the treatment of PTSD in children and the affect of PTSD in school performance, the following 4 themes emerged:

- Theme 1:* The efficacy of psychosocial therapy for treating traumatised children with versus without a diagnosis of PTSD.
- Theme 2:* Affects of Post Traumatic Stress on children's school performance.
- Theme 3:* Group therapy vs. individual therapy.
- Theme 4:* Specific treatment components and professions of treatment administrators.

A table of main themes and their appearance in each study is presented here:

**Table of main themes**

Study > Theme √	Berger et al (2007)	Cheto- mb et al (2002)	Gian- nopo- ulou et al (2006)	Karam et al (2008)	Kjorst- ad et al (2005)	Pack- man et al (2004)	Ramch- andani & Jones (2003)	Yasik et al (2007)
1.	✓	✓	✓	✓	✓	✓	✓	✓
2.	✓	✓	✓		✓			✓
3.	✓	✓	✓	✓		✓	✓	
4.	✓	✓	✓	✓			✓	

### *2.3.1. Theme 1: The efficacy of psychosocial therapy for treating traumatised children with vs. without a diagnosed PTSD.*

As mentioned earlier (p.5), the symptoms of PTSD in traumatised children are more common than the full diagnosis of PTSD, because PTSD remains difficult to diagnose in young children. As a result some of the included articles concentrated on treating post traumatic stress symptoms in children despite the majority not being fully diagnosed as having PTSD (Berger et al 2007, Karam et al 2008 and Packman et al 2004). However, the studies that only included children who met the criteria for PTSD (Chetomb et al 2002 and Giannopoulou et al 2006), showed better efficacy in treating symptoms. This was also noticed in the review of treatments for sexually abused children (Ramchandani & Jones, 2003) which included studies that treated both PTSD diagnosed children and less symptomatic traumatised children.

One of the reasons for better proof of efficacy may simply be the fact that children with a full diagnosis of PTSD are more likely to exhibit symptoms greater in frequency and severity, therefore making it easier to define improvements as statistically significant. For example Karam et al (2008) studied a classroom based group intervention for children exposed to war. Only 27 % of the treatment group and 31% of the control group had a diagnosable PTSD. This study did not find any statistically significant changes in the measurement of symptoms before or after treatment, or when the treatment group and control group were compared. A study of a programme delivering group treatment only for children with a diagnosed PTSD (Giannopoulou et al 2006) reported a significant reduction in PTSD symptoms compared to the pre-treatment measures and the control group. Also only 12% of the children still met the criteria of PTSD post treatment, and the parents of all the children reported reduction of children's psychosocial distress that had affected in their school functioning negatively.

### *2.3.2. Theme 2: Affects of Post Traumatic Stress on children's school functioning.*

PTSD symptoms seem to affect children's school functioning in many ways. For example, Yasik et al (2007) explored whether children's memory and learning deficits were associated with PTSD alone or with traumatic experiences in general. Children with PTSD showed greater impairments regarding general memory than traumatized children without PTSD, scoring on average one standard deviation below the mean. In addition to memory and learning problems, PTSD affects children's play skills, as discovered by Kjorstad et al (2005). Their study found PTSD had significant negative effects on children's social skills and play in the Social Behaviour Category, for example, on the appropriate expression of emotions. However, this study did not find a significant relationship between PTSD and deficits in the play related skills that are required for structured play and games. This study seems contradictory to Yasik's et al (2007) study, arguing that the children with PTSD have, in fact, sufficient memory and learning skills that enable them to follow the rules of structured games. However, Kjorstad's et al (2005) study did not specify whether the structured games were familiar to children or whether they required children to incorporate new rules or activities in these games, which would have demonstrated children's memory and learning skills more precisely. Deficits in memory, learning and social playing skills inevitably have a negative effect on children's school functioning, specifically in the areas of school work, play and leisure activities (Rodger & Ziviani, 2006).

In addition to specific difficulties at school, further studies have found the negative impact of PTSD symptoms in children's school functioning in general (Berger et al 2007, Chetomb et al 2002 and Giannopoulou et al 2006). Berger et al (2007) discovered that a quarter of a population of 142 school-aged children exhibited disability in all the areas of school functioning following exposure to a terrorist attack. Furthermore, Chetomb et al (2002) reported that children

diagnosed with PTSD complained of high anxiety levels which affected their school functioning. Additionally Giannopoulou et al (2006) found that parents of PTSD diagnosed children reported high distress levels of children and observed that children's functioning at school had deteriorated since the trauma. All the three studies addressed changes in school functioning in at least one of the outcome measures.

### *2.3.3. Theme 3: Group therapy vs. individual therapy.*

There is inconsistent evidence favouring one form of therapy delivery over another. There are more studies in this review using group therapy (Berger et al 2007, Karam et al 2008, Giannopoulou et al 2006 and Packman et al 2004) but none of these studies have used individual treatment as a comparison. In the sexually abused children's treatment review of Ramchandani & Jones (2003), there was some evidence that those receiving group therapy gained better self-esteem. On the other hand, the same review mentioned a study, where outcomes favoured individual therapy. Another study mentioned in the review found no benefit from adding group treatment to a family treatment programme.

### *2.3.4. Theme 4: Specific treatment components and professions of treatment deliverers.*

Although most studies reviewed here addressed the helpfulness of psychosocial treatment for PTSD symptoms, none were set to compare the efficacy of a certain treatment relative to other potential treatments. In the review of treatments of sexually abused children (Ramchandani & Jones, 2003), Cognitive Behavioural Therapy (CBT) had the largest number of research trials. Also a study reviewed here (Giannopoulou et al, 2006), used CBT treatment, which included learning cognitive restructuring, problem-solving and coping strategies; using psycho-educational material; recognising and reinforcing positive behaviours; encouraging participation of parents and families through homework assignments and exploring assumptions or beliefs through drawing, role playing and writing.



Another well known treatment, Eye Movement Desensitisation and Reprocessing (EMDR), was used in a study by Chetomb et al (2002). In this treatment children were encouraged to identify their traumatic memories and trauma-related negative cognitions as well as corresponding positive cognitions. In the desensitisation stage the sets of eye movements were induced by asking the child to track the therapist's hand movements back and forth while concentrating on their memories, thoughts and sensations from the time of their trauma. Between the sets of eye movements the child reported the content of their thoughts, images, feelings and sensations as they occurred. In the reprocessing stage of the treatment the child was asked to focus on positive cognitions rather than their negative thoughts, while conducting further sets of eye movements. Trained psychologists delivered both CBT and EMDR.

More universal treatments described in three studies (Karam et al 2008, Berger et al 2007, and Packman et al 2004) were delivered by other professionals working with traumatized children. Karam et al (2008) and Berger et al (2007) used a classroom-based intervention tailored for children exposed to war or terrorism. Both treatments were delivered by classroom teachers. Packman et al (2004) described a psychosocial intervention designed for children whose siblings had cancer. This treatment was delivered through a summer camp programme. The camp staff comprised of a multidisciplinary team of qualified adults such as teachers, nurses and social workers. Common to all these three studies is that staff were specifically trained to deliver these tailored, trauma specific programmes.

To address PTSD symptoms, the trauma specific programmes comprised various CBT techniques similar to those mentioned earlier in the chapter (p.16). Other methods described in the studies included art therapy; body-oriented strategies such as meditative practices and bio-energy exercises; positive feedback from caring adult counsellors; new skills in arts and crafts; archery; swimming; boating and other sports activities to give the experience of succeeding at something. Also traditional trust activities were utilised to provide

children with experiences of success in the context of supportive peer interaction and adult mentoring. The aim of these techniques was to provide children a variety of tools and activities to explore and process their traumatic experiences.

Although these treatment components comprised techniques that fit within OT intervention, none of the trials mentioned OT professionals as treatment deliverers. In one study (Kjorstad et al, 2005) the researchers sent a survey to health care professionals, including occupational therapists, regarding their perception of PTSD diagnosed children's play skills. As this study did not focus on the intervention the children were receiving, it is difficult to conclude, which forms of treatment are more successful and who delivers them.

## **2.4. Conclusions drawn from the review of literature**

- The current literature regarding the treatment of PTSD in children, and its affect on school functioning, agrees that PTSD does affect children's general functioning at school especially in terms of memory, learning and social skills.
- The evidence supports psychosocial treatment for this group of children and shows that children with a full diagnosis of PTSD are more likely to gain statistically significant improvements after studied interventions.
- There is little consistent evidence favouring group or individual treatment or any specific treatment method due to a lack of comparison between treatment methods and delivery types.
- Trained psychologists delivered both CBT and EMDR whereas other professionals working with traumatized children delivered more universal treatments comprising forms of CBT and general means of therapy.
- There were no studies that explored the role of OT in this area, and the closest OT related study concentrated on children's social skills and the occupation of play. However it was not clear in what part of the treatment occupational therapists were involved.
- Today it is still unclear how commonly occupational therapists treat children diagnosed with PTSD and whether they focus on school-aged children's school functioning, the more general presentation of PTSD symptoms or on the problems related to a diagnosis other than PTSD.

## 2.5. Research question and objectives

Considering the above, the aim of this study is to answer the following question:

*What is the role of OT in treating school-aged (8-12years) children with a diagnosis of PTSD as perceived by paediatric occupational therapists?*

Specific objectives to achieve the aim are:

- To explore the referral reasons and presenting issues for children with PTSD when referred for OT.
- To explore the treatment modalities used for these children as seen by occupational therapists.
- To discover, which therapeutic tools occupational therapists use in their interventions.

The goal of this study is to broaden the knowledge base within paediatric OT and to assist with training new occupational therapists in this area of practice.

The research question and objectives will dictate the methodology, which will be discussed in depth in the following chapter.

## **Chapter 3. Methodology**

### **3.1. Introduction to methodology**

This chapter discusses the proposed research project in further detail. Firstly, the research design is explained taking into consideration any alternative designs that could be used to conduct the research. Secondly, the participant population is described followed by explanation of the sampling strategy and intervention schedule. Finally, the data collection and management is discussed, and ethical implications are taken into consideration.

### 3.2. Research Design

The focus of this enquiry is to discover the role of paediatric occupational therapists in treating school-aged children with a diagnosis of PTSD, which leads to the questions being broad and carried out in natural health care settings. The goal is to make sense of, or interpret the ideas of occupational therapists whilst keeping the questions open. This kind of setting and descriptive style of exploring the role of OT, forms a part of the justification for using qualitative design strategy (Crabtree & Miller, 1992)

A phenomenological approach is used in this descriptive qualitative research, hence, it focuses on the subjective, lived experience of the individual occupational therapists studied. Arising from philosophy and methodology, phenomenology provides a framework to encounter participants' perspectives of the phenomena. Phenomenological methods involve a conversational structure of questions and answers (Munhall, 1994). By using this approach facilitated by semi-structured interviews, the phenomenon of treating children with PTSD as occupational therapists will be understood best.

Some other possible designs for a qualitative research are ethnography and grounded theory designs. In relation to this study, an ethnographic approach would explore occupational therapists within the context of their culture. In comparison, grounded theory has a goal of generating or discovering a theory to describe the studied phenomenon or process (Osman et al, 2003). Neither of these designs fit in with the aim of this study, which is to give therapists a chance to express their experiences regarding their role in a specific area of practice without an attempt to generalise individuals' views.

Within the phenomenological approach, the use of focus groups might have been an alternative option instead of semi-structured interviews. According to Breakwell et al (2000), focus groups give insight into phenomena, which are defined in a group context. Some participants may find this approach more relaxed and therefore discuss the topic more freely than in a one-to-one interview approach. On the other hand, group dynamics may have a hindering effect regarding individuals' expression of their beliefs, attitudes, opinions and feelings (Breakwell et al, 2000). As the aim of this study is to discover individual perceptions rather than group opinions, semi-structured interviewing would be more suitable.

### 3.3. Participant population

The participants will be selected by purposive sampling (Robson, 2000) based on the following inclusion criteria:

- Subjects are HPC-registered paediatric occupational therapists practicing in a mental health NHS trust in South East England (participants gathered from a minimum of 3 different trusts).
- Their current client group includes children with diagnosed PTSD or recognised PTSD symptoms.
- At least one of these children is of school-age (8-12 years).

And exclusion criteria:

- Subjects who are familiar to the researcher.
- Subjects who have worked in the field of paediatric OT for less than a month.

Inclusion and exclusion criteria are set to ensure objectivity in the sampling process. According to Osman et al (2003), the use of inclusion criteria provides guidelines for choosing participants with predetermined characteristics that are important to the research question. The inclusion criteria listed above ensure that the selected occupational therapists meet the UK standards of practice, share knowledge and experience in the same specific area of treating children with PTSD and represent a wider geographical area across a minimum of 3 NHS trusts. However, some individuals may not be suitable for the study, even though they meet the inclusion criteria (Carpenter & Suto, 2008). This may be because the subjects are familiar with the researcher and therefore the relationship between interviewer and interviewees would be biased. An established relationship with the interviewer may influence the way in which an interviewee responds to questions, for example providing answers they think the interviewer wants to hear (Crosby et al, 2006). Also some potential subjects may not have been working in the field long enough to have sufficient



experience in the subject. The exclusion criteria mentioned above are therefore set to decrease this personal bias and ensure participants have sufficient and up to date practical experience on the research topic. Both inclusion and exclusion criteria are set to help control these extraneous variables mentioned above.

The number of participants will be limited to between 8 and 12 as, according to Holloway (1997), the practice of phenomenological study normally reaches saturation interviewing ten or less participants. She explains saturation as the point in an interview where no new data is generated. Because of the open nature of the research question and broad semi-structured interview questions, the saturation is likely to be reached during the data collection. The results of this type of study cannot be generalised into a wider population of occupational therapists due to the small sample size (Taylor, 2000). This study does not however aim to generalise individuals' views but, rather, inform the OT practice through the lived experience of interviewed occupational therapists.

### **3.4. Sampling**

In order to make contact with the participants, contact to several levels of administrative decision-makers is necessary in order to gain access and receive approval to carry out the research (Krefting, 1991). Firstly the list of mental health NHS trusts will be explored through the website of NHS Choices (2007). Due to practical reasons, the trusts geographically closest to the researcher will be approached first to determine whether they provide Child and Adolescent Mental Health Services (CAMHS).

After this confirmation, contact will be made with the CAMHS's head of the OT services, who will be asked to allocate an appropriate person working on-site to act as a gatekeeper and participant recruiter. An information letter explaining the nature and purpose of the study will be sent to the gatekeeper and a presentation of the proposal will be offered to the team. During the presentation, potential participants will receive information sheets explaining the research and the role of a participant in further detail. Both the information letter to the gatekeeper and the information sheet for participants are enclosed in the appendix.

The gatekeeper will contact the researcher to arrange a meeting with suitable participants who have volunteered to take part in the study. During the first meeting with potential participants, dates and times to conduct the interview will be agreed and participants will be provided with a topic outline to help them prepare for the interview. The meeting will also give participants an opportunity to ask questions and to sign a consent form for the interview and reporting the results (Flick et al, 2007).

### **3.5. Interview schedule**

The interview will be set at a separate room of the OT department to provide privacy, minimise stress and ensure confidentiality. The appointment room can be kept under control to avoid distraction. Also participants are more easily contacted and interviewed when setting the research at their working place. By setting the interview in the neutral, clinical environment, the replicability of the study would be achieved, if the study was to be repeated (Myers & Shaw, 2004).

The interview would take between 30 minutes to 1 hour and cover 4 broad topic areas of objectives that are listed earlier in this document (p. 20). The interview schedule is attached in an appendix 7; however, the final interview format will be refined and modified after an iterative process involving three pilot interviews prior to use of the interview. Pilot participants can provide valuable feedback on the content, flow and clarity of questions (Reis & Judd, 2000). These participants will be volunteering occupational therapists from the local CAMHS that is not participating in the study. According to Reis and Judd (2000), the pilot sample should be similar to those from the target sample so they share the same culture and understanding of the subject. Therefore it is vital that the occupational therapists are from paediatric field of OT and preferably have treated children with PTSD or have some knowledge of the condition.

### **3.6. Data collection**

The data collection method used in the research is a semi-structured individual interview. This flexible type of interview gives the interviewer a chance to alter questions to suit each participant. By doing so, the researcher will create a relaxed interview situation and form a relationship with the interviewee where a free flow of information can be gained. This will assist in forming a deeper understanding of the research question (Miles and Gilbert 2005).

Interviews will be audio-taped to ensure a valid description of what interviewed participants have said. This is to help avoid inaccuracy or incompleteness when transcribing the conversation in detail, analysing and presenting the data. Contextual field notes will be added to the data collection process, which describe the setting, nonverbal behavior of the participants, and interruptions in the flow of conversations. This type of data can be later used to support interpretations of the feelings and thoughts of the participants (Reis & Judd, 2000).

### **3.7. Management of data**

The collected data will be managed in a manner that assures confidentiality at all stages. Both audio-tapes and written materials, including the transcripts, will be kept in a locked cupboard. During the computerised analysis of data, the access to data will be restricted and password protected ensuring only the researcher has access to the data. The transcripts will be coded with numbers and a systematic method of assigning pseudonyms to each participant's coded transcript will be used. Any other information that could potentially identify a participant will be removed from the transcripts. After finishing the research the data will be kept for a set period of time as dictated by the research ethics committee, before being disposed of in confidential manner (Miles & Huberman, 1994).

### **3.8. Ethical implications**

The four principles of research ethics; autonomy, nonmaleficence, beneficence and justice are considered at all stages of the research project (Flick, 2008). These four dimensions are listed and explained below.

#### *3.8.1. Autonomy – respecting the rights of the individual.*

Before starting the interviewing process, all participants need to be willing to give permission for conducting the research involving them. Participants have the right not to partake in the interview, skip any questions they are not comfortable answering and withdraw at any point of the process.

#### *3.8.2. Nonmaleficence – not doing harm.*

A phone number of a counselling helpline will be given to all participants prior to the interview in case any of the participants find particular topic areas or questions upsetting. The interviewer will act in a sensitive manner throughout the interview in order to minimise stress to the participants (Mauthner et al, 2002).

#### *3.8.2. Beneficence – doing good.*

The participants will be debriefed on the research process through a participant information sheet (see appendix 6) and a presentation of the proposal delivered to the trusts' OT teams. Anonymity and confidentiality will be ensured by applying the data management techniques explained on the previous page. However, if the interviewing process reveals a case of malpractice, the interviewer is no longer bound by confidentiality and has a duty of care to report malpractice (Flick et al, 2007). The participants will be informed about this aspect of confidentiality and duty of care prior to the interview.

*3.8.4. Justice – particularly in terms of fairness and distributive justice*

In terms of justice, it is fair that the participating trusts and individuals gain benefit of the research project, too. Therefore the results will be delivered to the participating trusts through a formal presentation of the study, and individual participants will receive a copy of the report (Mauthner et al, 2002). In terms of distributive justice, Oxford Brookes University will carry out an ethical review for the proposal prior to proceeding with the research, alongside the Local Research Ethics Committee of the geographical area of participating trusts (Department of Health, 1997). These authorities will ensure that the research procedures follows commonly accepted and ethically sound standards.

### **3.9. Conclusion of methodology**

- The goal of the research project is to make sense of, or interpret the ideas of the occupational therapists whilst keeping the questions open.
- By using a qualitative design and phenomenological approach facilitated by semi-structured interviews, the phenomenon of treating children with PTSD as occupational therapists will be understood best.
- 8-12 participants will be selected by purposive sampling from a minimum of 3 NHS mental health trusts in order to represent a wider geographical area.
- Inclusion and exclusion criteria will be applied to the participants in order to control extraneous variables, such as the clinical experience of the specialist setting and the amount of time worked in the setting.
- The data will be collected through audio taped semi-structured interviews along with contextual field notes describing the setting, nonverbal behavior of the participants, and interruptions in the flow of conversations.
- The data will be managed in a confidentiality ensuring manner and all the research procedures will follow the ethical principles of autonomy, nonmaleficence, beneficence and justice

The next chapter will discuss the analysis of the obtained data and formation of results.



#### **Chapter 4: Plan of the results and analysis**

The creation of detailed transcripts of interviews and the analysis of the data will follow the guidelines in Robson (2000) for the coding of qualitative data. The detailed transcript of interviews will be subjected to participant approval to increase validity. Categories will be then developed by researcher through several readings of the transcripts. Data will be coded to these categories. Further interpretive analysis will be undertaken by drawing together themes from the initial categories, but it is important to acknowledge that the conclusions drawn will be limited to the views and experience of the participants in the study.

Interpretative phenomenology involves a conversation that focuses the expressions of the participants, the questions posed by the researcher, and the interpretation.

*During interpretative phase meanings are extracted from the data, comparisons are made, creative frameworks for interpretation are constructed, conclusions are drawn and significance is determined. (Patton, 2002, pp. 465).*

This results in a conversational structure of questions and answers. The interpretative phase is a subjective process in which the researcher relies on the text as a source of codes. This involves reading and rereading the text to identify significant statements and phrases that reveal the lived experience of occupational therapists concerning the role of OT in treating children with PTSD (Patton, 2002).

Data will be analysed and evaluated through a process of coding and content analysis. By categorizing the data in a systematic way, emerging patterns or themes will be identified. A qualitative data analysis programme, QSR NUD\*IST (Qualitative Solutions and Research, 1997) will be used in the coding process. According to Woods & Roberts (2000), there are some limitations to using this computerised programme. Employing computers in data analysis can reinforce mechanistic data management at the expense of more deep and theoretical analysis. Also the almost unlimited storage and indexing capacity of NUD\*IST creates a limitation as it may encourage the researcher to create too many codes and categories, which make the data difficult to manage and analyse. In contrast, the advantages of using the programme are its ability to handle large data sets; speed and convenience in coding, searching and retrieval of data along with the production of visual index trees and other graphic mapping systems (Woods & Roberts, 2000). Therefore it is decided that the positive benefits of using the software outweighs the negative.

Trustworthiness of the research will be assured through credibility, dependability and confirmability (Guba & Lincoln, 1989). Credibility will be established by way of triangulation through hiring an independent investigator to act as a second reader, who would verify emerging themes by reading through transcripts without identifying information. An audit trail will be initiated through these materials, which will further assure confirmability. Dependability will be ensured by multiple readings of the transcribed interviews and by a code-recode procedure. This procedure involves the researcher to code part of the data, wait a period of time, recode, and then compare results. Through the code-recode procedure the consistency of the coding process is ensured and therefore enhances dependability. In addition, field notes; letters; notes and investigator journal entries during data analysis will be used to substantiate appropriate data analysis. These additional notes regarding context, environment and nonverbal communication will enrich the data interpretation

process. Also the personal investigator journal will assist in capturing the researcher's individual responses and reactions to the research process and, therefore, enhancing transparency and trustworthiness of the research (Houser, 2008).

At the final stage of data analysis, member checking will assure the validity of the study. The participants would have received the transcript of the interviews to check for accuracy before the actual analysing process started. After the data analysis, the second member checking process will be carried out. In this technique the researcher presents the results of analysis to participants, who can then comment on the accuracy rate of what the researcher has produced. This is an effective way to maintain the validity of the study (Robson 2002)

Through adaptation of Flick's (2008) model of calculating the costs and timeline of a qualitative project, the estimated timeline for conducting this study is approximately 12 months. This timeline allows 2-3 months for the ethical review, 2-3 months for the data collection period and the rest of the time is allocated for analysing the data and reporting results. Costs for the whole project will include:

*travel expenses; purchasing tape recording equipment, computer hardware and word processing software; printing, copying, phone and postage expenses; hiring of an independent investigator and time use for both the researcher and participants. (Flick, 2008, p. 57).*

## **Chapter 5: Discussion of limitations, strengths and further research**

Although a great number of methods and tools will be applied to minimise errors and limitations, every research project has its strengths and weaknesses (Scutchfield & Keck, 2002).

The specific selection of participants is both a strength and a potential weakness in the study. Purposive sampling enables the researcher to tap into relevant data accurately and easily (Robson 2002), although the results of the study only apply to a very limited set of individuals.

According to Patton (2002), interview data limitations include possibly distorted responses of participants due to personal bias, anger, anxiety, political atmosphere or inappropriate timing of the interview. Therefore it is crucial for the interviewer to be mindful of these challenges and be prepared to reschedule the interview when needed as this will ensure the participants have the full autonomy to participate when it best suits them.

One type of bias that may be introduced by the researcher is confirmation bias. This is the tendency to interpret new information in such a way that confirms to one's prior beliefs, even to the extreme of denial or ignoring information that conflicts with one's prior beliefs. This may be particularly true when the researcher is part of, or has a strong opinion regarding the population studied (Tashakkori & Teddlie, 2002). Through a personal, reflective investigator journal the researcher can explore the responses and reactions that arise when conducting the study and, through this process enhance transparency of the research (Houser, 2008).

There are some limitations related to member checking process that may occur throughout the process, as noted by Holstein & Gubrium (2003). For example, participants may feel uncomfortable in challenging the interpretation. Moreover, they may find it difficult to understand the findings or they may refuse to participate in member check altogether, especially if an extended period of time has elapsed since the interview. Participants may relay accounts during an interview that they later regret or see differently and therefore may deny such stories and want them removed from the data. Also different members may have different views of the same data. Nevertheless, member checking has the ethical value of giving participants ultimate control over how their stories are reported and interpreted, regardless of the number of changes they request. During this process it is important to create an atmosphere that allows a free exchange of opinions and the formation of constructive feedback (Flick, 2008).

Regardless of some possible limitations, this research project will provide valuable knowledge regarding the specific area of OT practice in treating school-aged children with a diagnosis or symptoms of PTSD. This will assist in informing the practice of paediatric OT and supporting the training of new occupational therapists. The qualitative methodology and phenomenological approach captures therapists' unique lived experiences without an attempt to generalise individuals' views (Osman et al, 2003).

Some possible future directions for research in this area of practice would be to look at the OT service delivery from the point of view of service users. It would be useful for occupational therapists to have knowledge of the perspectives of PTSD diagnosed children and their carers. Experimental trials of the effectiveness of OT intervention in treating this client group would also be important. The better the knowledge of the efficient treatments and client needs, the better the OT service will become.

## **Chapter 6. Conclusion of the research proposal**

There is now evidence to understand PTSD in children, and according to national government legislation (p. 6), health professionals should work together to form a supportive network for these children and their families in order to help children function at school successfully.

This paper firstly reviewed the literature regarding the effects of PTSD in school-aged children's (8-12years) school functioning and the intervention they are receiving for PTSD symptoms. Secondly, the paper proposed to carry out research into the perception of paediatric occupational therapists regarding their role in treating school-aged children (8-12yrs) with PTSD.

It was suggested that for gaining an in-depth understanding of occupational therapists views of their role, the qualitative methodology with phenomenological approach would be the most appropriate design.

Participants for the study would represent a minimum of 3 NHS mental health trusts and semi-structured interviews would address three topic areas:

- The referral reasons and presenting issues for children with PTSD when referred for OT.
- The treatment modalities used for these children by occupational therapists.
- Therapeutic tools used by occupational therapists when treating children with PTSD.

The strengths and limitations of the proposed study were discussed and it was concluded that although more research for this area of practice is required, this particular research project would provide valuable knowledge of the specific area of OT practice in treating school-aged children with a diagnosis or symptoms of PTSD.

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## Appendices

### **Appendix 1. The search process**

MEDLINE (search I, 3rd September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 1

(search II, 5th January, 2009): Same as above.

PILOTS (searched 4th September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 1

(search II, 5th January, 2009): Same as above.

PsycINFO (searched 9th September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 1

(search II, 5th January, 2009): **Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 2

AMED (search I, 12th September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 2

(search II, 5th January, 2009): Same as above.

CINAHL (search I, 14th September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 8

(search II, 5th January, 2009): **Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 10

Cochrane Library (search I, 19th September, 2008):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 8

(search II, 5th January, 2009): **Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and **Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and **School-function\*** or **School-perform\*** = 9

Eric (search I, 21st September):

**Child\*** or **School-age\*** and **PTSD\*** or **Post-Traumatic-Stress-Symptom\*** and  
**Rehab\*** or **Treat\*** or **Intervention\*** and **OT\*** or **Occupational Therap\*** and  
**School-function\*** or **School-perform\***= 10

(search II, 5th January, 2009): Same as above.

The total number of hits in the latest search: **35**

The number of articles (some mentioned several times in different databases):

**13**

Articles tracked from reference lists: **3**

Articles found from the hand-search: **0**

Total number of articles found: **16**

**Appendix 2. Table of included studies presented by the level of evidence (LE)**

<i>LE + CASP Score</i>	<i>Study</i>	<i>Sample size</i>	<i>Intervention</i>	<i>Main findings</i>	<i>Study Participants</i>
<i>Level 1, CASP 9</i>	<i>Ramchandani &amp; Jones (2003)</i>	<i>12 RCTs</i>	<i>Psychological intervention for sexually abused children.</i>	<i>Preschool-aged children benefit most from a form of CBT. Symptomatic children are more likely to show benefit. The involvement of non-abusing carer is beneficial.</i>	<i>Children &amp; adolescent aged 2-17 years</i>
<i>Level 2, CASP 10</i>	<i>Berger et al (2007)</i>	<i>142: 70 in active treatment group and 72 in waiting list control group.</i>	<i>Overshadowing the Threat of Terrorism (OTT): A school-based structured group intervention for preventing and reducing children's post traumatic stress-related symptoms following exposure to terrorist attack.</i>	<i>Children who received intervention reported significant reductions on all measures of PTSD symptoms, somatic complaints and anxiety levels compared to the control group. Waiting list control group showed no improvement in symptoms between the beginning and end of the waiting period.</i>	<i>Children aged 6-12 years</i>
<i>Level 2 CASP 9</i>	<i>Chetomb et al (2002)</i>	<i>32: 17 in active treatment group and 15 in waiting list control group</i>	<i>Brief individual Eye Movement Desensitization and Reprocessing (EMDR) treatment for hurricane exposed children who met the clinical criteria of PTSD</i>	<i>Treatment reduced the level of PTSD symptoms and co-morbid symptoms of depression and anxiety. Changes were maintained at a 6-months follow-up. The waiting list group showed no improvement of symptoms between the beginning and end of the waiting period.</i>	<i>Children aged 6-12 years</i>

Level 3, CASP 8	Karam et al (2008)	194: 101 in treatment group, 93 in control group	A classroom-based psychosocial group intervention for children exposed to war.	No significant difference in PTSD, depression or separation anxiety rates were found between the treatment and control group in comparison to lifetime, baseline or one-year follow up.	Children aged 6-18 years
Level 3, CASP 8	Yasik et al (2007)	131: 29 traumatised PTSD positives 62 traumatised PTSD negatives 40 non-traumatised control group	WRAML: The Wide Range Assessment of Memory and Learning (Sheslow & Adam, 1990) to measure children's learning abilities associated with memory functioning.	Verbal memory impairments were specifically associated with PTSD and not with trauma exposure in the absence of PTSD. Children with PTSD showed impairments in general memory, scoring on average one standard deviation below the mean.	Children aged 11-18 years,
Level 3, CASP 8	Giannopoulou et al (2006)	17: 10 children in active treatment group, 7 in waiting list control group	Short-term group cognitive-behavioural therapy for children with PTSD symptoms following an earthquake.	Treatment produced improvement in psychosocial functioning and reduced PTSD and depressive symptoms. Waiting list control group showed no improvement in symptoms between the beginning and end of the waiting period.	Children aged 8-12 years
Level 3 CASP 7	Kjorstad et al (2005)	30 observed children	Adapted Likert-scale survey conducted for professionals working with children with PTSD. The survey measured the effects of PTSD on	No significant relationship between PTSD and deficits in play related skills that are required for structured play and games. Significant negative effect of PTSD on children's social skills and play in the Social	Children aged 4-15 years

			<i>children's social skills and occupation of play.</i>	<i>Behaviour Category e.g. expressing emotions appropriately.</i>	
<i>Level 3, CASP 7</i>	<i>Packman et al (2004)</i>	<i>77 participants</i>	<i>Cam Okizu's Special and Important Brothers and Sisters (SIBS) summer camp designed for siblings of children with cancer. Camp programme aims to improve siblings post-traumatic stress, anxiety, quality of life and self-esteem.</i>	<i>Self report measures showed significant reduction in PTSD severity scores and the total anxiety scores 3 months post camp. Also quality of life and self-esteem scores improved when compared pre- to post-camp measures.</i>	<i>Children aged 6-17 years</i>

### **Appendix 3. – CASP example appraisals of a quantitative study and systematic review:**

Quantitative study: Yasik E., Saigh P., Oberfield R. and Halamandaris P. (2007) Posttraumatic Stress Disorder: Memory and Learning Performance in Children and Adolescents. *Biological Psychiatry* vol. 61 p. 382-388

**CASP score = 8/10**

**1. Did the study ask a clearly focused question? YES**

According to Houser & Bokovoy (2006) the study is clearly focused when the research question is well defined so that it is easy to find from the study paper. The question should focus on *who* will be studied, *what* intervention will be used and *how* the outcome will be measured.

This study had a clear question; are memory deficits associated with PTSD alone or with traumatic experiences in general. Three groups of children were examined: 29 PTSD positives, 62 PTSD negatives who had experienced trauma and 40 non-traumatized children. The outcomes were measured by comparing the results from The Wide Range Assessment of Memory and Learning (Sheslow & Adams 1990), which all the children completed.

**2. Was this a quantitative study and was it appropriately so? YES**

A quantitative study approach is appropriate if the research question aims to weigh the difference in a phenomenon, situation, problem or issue, the information is collected by using mainly quantitative variables and the analysis is geared to discover the vastness of variation (Kumar, 1999).

This research aims to weigh the difference in the amount of memory problems observed in traumatised children with or without PTSD and non-traumatised children. Collected data is quantitative and the analysis is able to show the vastness of the differences.

**3. Were participants appropriately allocated to intervention and control groups?**

**NO**

Usually randomisation is used to establish the basis for testing the statistical significance of differences between two participant groups in the measured outcome (Hulley et al. 2001).

This study's aim was not to compare dependent variables in between similar groups but the groups themselves were compared as dependent variables so no randomisation was needed. Some independent variables were controlled by excluding participants who might have potentially affected negatively on the reliability of the study. For example, having reasons other than PTSD that affect on the participants memory and learning. Furthermore some demographic variables such as social class and ethnicity differed significantly between the participant groups and therefore might have affected the final results.

**4. Were participants, staff and study personnel “blind” to participants’ study group?**

**YES**

Polit & Beck (2008) explain that blinding addresses *awareness* or *expectancy bias*, preventing the participants awareness of their treatment condition and the study hypotheses, or researchers' awareness of who is in which treatment condition.

This study uses a single blinding approach where researchers who collected the outcome data were blinded. It would not have been possible to use blinding for the participants.



**5. Were all of the participants who entered the trial accounted for at its conclusion?**

**CAN'T TELL**

It is recommended that investigators keep track of the drop-out numbers and report participants' reasons for drop-out because this reduces the possibility of biased results (Schinka et al. 2003).

In this study it is not mentioned whether any of the participants dropped out of the experiment or left assessments incomplete. As Schinka et al. (2003) further discuss, dropout rates also offer an important dependent variable if dropouts occur more in a certain participant group. This was not considered in the study.

**6. Were the participants in all groups followed up and data collected in the same way?**

**YES**

"Differences in intervention or treatment within various study groups may act as a confounding factor to influence results." ( Taylor, 2000, p72) Therefore, if there is more than one person involved in the data collection or intervention, the processes should be clearly standardised between different personnel.

This study used standardised assessments both in including and excluding participants and measuring their performance. The participants are therefore treated equally.

**7. Did the study have enough participants to minimise the play of chance?**

**YES**

Sample size has to be chosen so that an observed effect in the sample can be declared as statistically significant. A sample size too small may fail to detect a meaningful effect while too large a sample size is wasteful and might show an effect to be significant that later in practice proves to be insignificant (Sim & Wright, 2000).

Power calculations are not given in the paper but p-values are given and they are statistically significant. This would suggest that there were enough participants in the trial to minimize the play of chance.

**8. Are the results presented clearly and are you able to tell the main result?**

**YES**

According to Porte (2002), most researchers undertaking experimental studies will want to know whether the data supports hypothesis or helps to provide a response to the research question. The eventual data presentation should be reader-friendly providing sufficient information so that the reader can confirm the appropriateness of the analyses and differences in measurements.

Data is presented clearly and sufficiently both in table format and explained in words. The main result of the study is that verbal memory impairments were specifically associated with PTSD and not with trauma exposure in the absence of PTSD.

**9. Are the results precise?**

**YES**

Confidence intervals become narrower as sample size increases and therefore larger samples usually produce narrower Confidence Intervals. The narrower the confidence intervals are, the more precise we can take the findings to be (Evidence based health care, 2002, p94).

Confidence intervals (CIs) were not calculated in the paper. Rough manual calculations of CIs were used for outcome measures, showing a range of +- 3 to 4, which appears sufficiently precise considering that mean values of the outcomes range from 80 to 100 points.

**10. Were all important outcomes considered so the results can be applied?**

**YES**

According to McLeod (2003), there are three main interest groups that have different criteria and standards for interventions studied: the client, society and service delivery professionals. Therefore these different points of views should be discussed in the study. For example a treatment to be demonstrated effective, it must be acceptable to all these three “stakeholders”.

This study clearly points out the possible reasons for learning deficits in individuals with PTSD, suggests considerations that society should take if generalizing outcomes in this population and gives directions for professionals in terms of further research.

Systematic review: Ramchandani P. and Jones D. (2003) Treating psychological symptoms in sexually abused children: From research findings to service provision. *British Journal of Psychiatry*, Vol. 183, p. 484-490

**CASP score = 9/10**

**1. Did the review ask a clearly focused question?**

**YES**

According to Houser & Bokovoy (2006) the review is clearly focused when the research question is well defined so that it is easy to find from the study paper. The question should focus on who will be studied, what intervention will be used and how the outcome will be measured.

The review is set out to study the available evidence of randomized controlled trials of psychological treatments for sexually abused children. The outcome considerations were geared to inform the place of the treatments in a multi-disciplinary service.

**2. Did the review include the right type of studies? YES**

Systematic reviews should mainly use primary investigations (reports from the first author, who conducted the study or developed the theory, for example) that address the review's question. (LoBiondo-Wood & Haber, 2006)

The review only included primary studies that were randomised control trials, interventions that addressed the behavioral or psychological effects of sexual abuse and outcome measures that reflected this. These inclusion criteria address the review's question.

**3. Did the reviewers try to identify all relevant studies? YES**

A systematic review should synthesise the results of primary investigations and use strategies that limit bias and random error. Types of strategies include a comprehensive search of all potentially relevant articles and the use of explicit, reproducible criteria in the searching of articles (Cook et al. 1997).

The search strategy was described in the review comprehensively. Strategy included searching four electronic databases related to the topic using appropriate search terms. A hand search was completed for certain journals, reference lists were used to track further articles, unpublished literature was searched and authors and other experts both in the UK and overseas were consulted.

**4. Did the reviewers assess the quality of the included studies? YES**

According to Greenhalgh (2006), in a comprehensive systematic review each included paper would be drawn against a list of criteria including generic and particular aspects of quality.

The criteria system used for assessing the quality of the included studies is Jadad et al (1996) and is described in the review. The system considers of, for example, randomisation, blinding and drop-out rates, the higher the score the greater the methodological rigour.

The scores for each article are given and the criteria system is said to have high inter-rater reliability and good criterion-related validity when compared with other scoring system.

**5. If the results of the studies have been combined, was it reasonable to do so?**

**YES**

In order to gain greater objectivity and generalisation of evidence, the randomised trials are often combined statistically in a meta-analysis. However, the trials usually include a variety of treatments, types of patients and outcomes. This may lead to a great deal of heterogeneity, which has a negative influence on the reliability of the meta-analyses. Although combining the studies would minimise the possible biases, meta-analyses may not be the best option when the differences in included studies are great (Chalmers & Altman, 1995)

The results of the studies included in this review are not statistically combined because of the heterogeneity of the participants, the therapies and the outcome measures used.

**6. Are the results presented clearly and can you tell the main result?**

**YES**

According to Porte (2002), the eventual data presentation should be reader-friendly, not over interpret the results and provide sufficient information so that the reader can confirm the appropriateness of the analyses and differences in measurements.

The results are clearly presented and four main findings are listed:

1. Some symptomatic sexually abused children of preschool-age benefit from a form of CBT delivered by trained therapists to them and their non-abusing carer.
2. The balance of evidence suggests that older sexually abused children may also benefit from a similar format of CBT.

3. Symptomatic children are more likely to demonstrate benefit from the therapy.
4. The involvement of a non-abusing carer in therapy is associated with beneficial outcomes for the child.

**7. Are the results precise?**

**YES**

“One of the benefits of systematic reviews is that they combine the results of several studies and thus increase confidence in the combined results.”

(Evidence based health care, 2002, p94).

Although the results were not combined in meta-analysis, the quality of each study has been critically evaluated. The methodological rigor varies in between 1-3 out of the maximum score of 5 (the average score 2.25), which indicates that the trials reviewed in the article are not of the highest quality. However, this is acknowledged by the reviewers, who do not attempt to over interpret results and specific inequalities of each research are discussed.

**8. Can the results be applied to the local population?**

**CAN'T TELL**

According to LoBiondo-Wood & Haber (2006), it is important that the descriptors of the studied population should be evident in the sample of the study. The representativeness of the study depends on whether the characteristics of the population and the sample are consistent.

As the reviewed research is limited to treating children who are symptomatic from traumatic experience of sexual abuse only, it is questionable whether these results can be solely applied to the treatment population. According to Clancy & Clark (1990) sexual abuse usually occurs in an environment where a number of complex conditions interact. Therefore it is likely that this group of children may present other mental or physical health problems and also have traumatic experiences other than sexual abuse.

**9. Were all important outcomes considered**

**so the results can be applied?**

**YES**

According to McLeod (2003), there are three main interest groups that have different criteria and standards for interventions studied: the client, society and service delivery professionals. Therefore these different points of views should be discussed in the review. For example a treatment to be demonstrably effective it must be acceptable to all these three “stakeholders”.

This review takes the point-of view of sexually abused children pointing out that the treatment has to occur within the context of the child’s current circumstances and coexisting difficulties. It also gives directions to professionals and society informing the place of the treatments in a multi-disciplinary service and how society can offer support to families facing the abuse.

**10. Should policy or practice change as a result of the evidence**

**contained in this review?**

**YES**

It is recommended (LoBiondo-Wood & Haber, 2006) that practice changes be based on evidence obtained from several sources and research studies that demonstrate consistent findings. Synthesis of these study findings may result in supporting current practice or making minor practice modifications or developing a whole new practice area and making major changes.

The research studies reviewed in this article support the current practices suggesting that therapeutic treatments may help sexually abused children and their families. However, it recommends the practice is modified to be more clearly oriented to the family & child’s needs.

**Appendix 4. CASP scores and a summary of main points emerged in critiquing process for the remaining articles.**

Berger R., Pat-Horenczyck R. and Gelkopf M. (2007), School-Based Intervention for Prevention and Treatment of Elementary-Students' Terror-Related Distress in Israel: A Quasi-Randomised Controlled Trial. *Journal of Traumatic Stress*, vol. 20 (4), pp. 541-551

CASP score: 10

- A well conducted controlled trial, however as the study only measured the effect of the trauma specific, school-based treatment, it cannot be determined whether the impact was intervention-specific.
- There was no information regarding drop-out rates or whether all the students attended in all of the eight sessions.

Chetomb C., Nakashima J. and Carlson J. (2002), Brief Treatment for Elementary School Children with Disaster-Related Posttraumatic Stress Disorder: A Field Study. *Journal of Clinical Psychology*, vol 58 (1), pp. 99-112

CASP score: 9

- The sample size is relatively small having only 32 participants divided in an active treatment (17) and a waiting list control (15) group. However, the p-values are within the range of clinical significance.
- It was mentioned in the study that 4 children had moved away and therefore data from visits to their school nurse could not be obtained (this was one of the outcome measures). It is not declared whether these students participated in other follow-up questioners.
- The study only measured the effectiveness of the EMDR-treatment without comparing it with other potential treatments. Therefore it cannot be determined whether the impact was intervention-specific.



Giannopoulou I., Dikaiakou A. and Yule W. (2006), Cognitive-behavioural Group Intervention for PTSD Symptoms in Children Following the Athens 1999 Earthquake: A Pilot Study. *Clinical Child Psychology and Psychiatry*, vol 11 (4), pp. 543-553

CASP score: 8

- The sample size is very small having only 17 participants divided in an active treatment (10) and a waiting list control (7) group.
- There was not enough information available to make an informed judgement concerning whether the groups were well balanced and divided appropriately.
- The study included children diagnosed with PTSD but under conditions that PTSD only affects their functioning mildly or moderately and they have no co-morbid dysfunctions. Therefore it is arguable whether the sample is clinically representative.

Karam E., Fayyad J., Karam A., Tabet C., Melhem N., Mneimneh Z. and Dimassi H. (2008), Effectiveness and specificity of a classroom-based group intervention in children and adolescents exposed to war in Lebanon. *World Psychiatry*, vol 7, pp. 103-109

CASP score: 8

- There was no consideration of outcomes prior to the experiment.
- The control group was taken from the schools in areas less severely affected by war, which makes the sample and control group dissimilar in some aspects.
- 15 subjects with lower scores in prevalence of major depressive disorder (MDD) were lost-to-follow-up. This may have had an affect on the outcomes.

Kjorstad M., O'Hare S., Soseman K., Spellman C. and Thomas P. (2005) The Effects of Post-Traumatic Stress Disorder on Children's Social Skills and Occupation of Play. *Occupational Therapy in Mental Health*, vol. 21 (1) pp. 39-56

CASP score: 7

- The population studied (children diagnosed with PTSD) was not directly in contact with the survey. Questionnaires were completed by a mixture of health care professionals working with these children, and presumably these professionals have different views on children's performance.
- Some of the interviewed professionals had been working with the child they described for over 12 months but the majority had worked with the child for less time. This creates a variable in the professional input that the child receives and the level of professionals' familiarity with the child they described.
- Eight of the 37 children were identified as having a developmental delay. Due to the small sample size the researchers decided to include these children in the study. The children with developmental delay may have exhibited deficits in play skills for reasons other than having PTSD. The results may have been affected by these factors.

Packman W., Fine J., Chesterman B., VanZutphen K., Golan R. and Amylon M. (2004) Camp Okizu: Preliminary Investigation of a Psychological Intervention for Siblings of Pediatric Cancer Patients. *Children's Health Care* vol. 33 (3), pp. 201-215

CASP score: 7

- The study used no blinding techniques to decrease the level of bias when measuring the outcomes.
- No comparison or control group was used in this study which limited the internal validity of the results.
- No follow-up measures were conducted and therefore it was not clear whether the effects were long standing.

## Appendix 5: Information letter for trust administrators

(\*name)  
Director of Therapy Services

Address of  
Oxford Brookes University  
Ref: (Ethics Committee and  
reference number)

(\*date)

Dear (\*name),

I am writing to invite your trust to take part in the following study:

**“What is the role of Occupational Therapy in treating school-aged children with a diagnosis of Post Traumatic Stress Disorder (PTSD) as perceived by paediatric occupational therapists?”**

This research project aims to explore the perceptions of paediatric occupational therapists regarding their role in treating school-aged children (8-12yrs) with PTSD. The results of this research will provide valuable knowledge regarding this specific area of OT practice and assist in training of new occupational therapists. Qualitative research methods using a phenomenological approach that utilises semi-structured interview will be used to conduct the study. NHS mental health trusts' CAMHS services are being invited to participate in order to represent a wider geographical area, which would add to the value of the findings.

I am looking for occupational therapists from your trust and I shall be grateful if you ask someone to act as my contact to identify potential participants and pass on the information sheets.

The inclusion criteria for participation are as follows:

- Subjects are HPC-registered paediatric occupational therapists practicing in a mental health NHS trust in South East England.
- Their current client group includes children with diagnosed PTSD or recognised PTSD symptoms.
- At least one of these children is of school-age (8-12 years).

The interview process involves an initial, 30-minute appointment for participants to ask questions, sign a consent form and confirm a date and time for conducting the interview. The interview is a single hour long session. For the convenience of the participants, I would like to carry out both the initial appointment and interview on the site of your department.

During the data-analysis process I will ask the participants to take part in member-checking which means that they will receive a copy of the final report to check for accuracy and make any changes that they feel are necessary.

On conclusion of the study, I would be keen to deliver a formal presentation of findings for your department.

This study has been given ethical approval by the ethics committee. Should you have any queries, please do not hesitate to contact me on (\*phone number) or email me at (e-mail address)

Yours sincerely,  
Paivi Petaja

## **Appendix 6. Information sheet for participants**

(Adapted from DePoy and Gitlin, 2005 p. 309)

(Oxford Brookes headed paper)

You are invited to participate in a research project being conducted by Paivi Petaja, a final year student in the Department of Health and Social Care at the Oxford Brookes University. The purpose of the research is to explore the perceptions of paediatric occupational therapists regarding their role in treating school-aged children (8-12yrs) with PTSD.

### **Who would take part?**

In order for you to take part you should be

- HPC-registered paediatric occupational therapist practicing in a mental health NHS trust.
- Your current client group includes children with diagnosed PTSD or recognised PTSD symptoms.
- At least one of these children is of school-age (8-12 years).

### **What will you be asked to do?**

If you decide to participate, you will be asked to contact the link person in your department, who you received this information sheet from. She/he will then help you to arrange an initial meeting with the researcher. The first meeting takes approximately 30 minutes and this is a chance for you to ask questions, sign a consent form and a confirm date and time for conducting the interview. You will then receive an outline of the research questions so you can prepare for the interview. The interview will be a single hour long session. Both sessions would be carried out on site of your department.

**Risks:**

Except for your time and inconvenience, there are no foreseeable risks to you in participating in this study. Your department has approved you to participate in the study and the interviewing times will be part of your working hours.

**Benefits:**

There are no financial benefits for taking part in this study. However, you will receive a full copy of the report of the results and a formal presentation of the study is offered for your department.

**Confidentiality**

Your name will not be on any of the documents. A code number will be used to protect your identity. Data will be kept in the researcher's locked cupboard and any electronic data will be strictly password protected. All the gathered data will be destroyed after the period of time dictated by the research ethics committee.

**Voluntary**

Participation is voluntary. If you choose to take part in this study, you may stop at any time during the process. You also may skip any questions you do not wish to answer.

**Contact Information**

If you have any questions about this study, please contact the researcher on (phone number) or (e-mail address). You may also reach the link person of your department.

## **Appendix 7: Interview schedule**

(adapted from Couchman and Dawson, 1995 p. 74)

(Ask the question in your own words, and in a different order if appropriate. Prompt as necessary.)

### **Introduction**

- Introduce self as student doing the research.
- Explain that doing study as project on views of paediatric occupational therapists regarding their role in treating school-aged children (define the age group: 8-12yrs) with PTSD.
- Stress confidentiality.

### **The questions and probes:**

1. How common would you think it is for OT-professionals to treat school-aged children with PTSD?
  - Do you think there is any difference in this if you're working at CAMHS or other areas of paediatric OT?
2. Do you know whether your colleges in the trust come across children with PTSD?
  - How often would you say you come across children with PTSD?
3. What are the reasons for needing OT as written in the referral of these children?
  - Are there any other reasons you could think of?
4. What do you see as the presenting issues for children with PTSD when referred for OT?
  - You mentioned this issue as one of the main ones.. Could you tell me more about it?
5. Would you think these issues affect the child's school functioning and if so, how?
  - You talked about this part of the school functioning.. Do you think there are any other areas of school functioning that are affected by this?

6. What are the types of interventions you use when working with PTSD diagnosed children?
  - You mentioned this intervention... What do you see as the main issues this intervention addresses?
7. Which therapeutic tools do you use in these children's assessments and intervention?
  - Is there any other tools you would consider using?
8. What do you see as the challenges faced by children with PTSD?
  - You mentioned this particular challenge... What do you think this means to the child?
9. What sort of things do you consider would be important to know as new clinician entering this area of practice?
  - Are there any other ways you would advice a new therapists entering this field?
10. What do you think about the current service provision for these children?
  - You mentioned this aspect of the service provision... What implications does that have in you as a therapist?
11. How do you think services for PTSD diagnosed children could be shaped in future?
  - You mentioned you would like to see this happening... Could you tell me more about it?

**Background details**

Year qualified

The number of years/months worked in paediatrics.

(Thank interviewee.)