IN THE AFTERMATH OF A DISASTER

Meaning making and posttraumatic growth in Norwegian children and adolescents who were exposed to the 2004 tsunami

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SUMMARY

Every year, a large number of children are exposed to disasters of some sort. These experiences may profoundly affect the children's lives, and knowledge about processes which may facilitate their coping and adaptation in the aftermath is crucial. The primary aim of this study was to examine narrative construction, meaning making, and posttraumatic growth in children and adolescents after they had been exposed to the 2004 tsunami in Southeast Asia. A second aim was to explore ways in which the parents may contribute to their children's coping and adaptation. Children and their parents were interviewed face-to-face ten months and two and a half years following their return home. The interviews comprised information about the degree of trauma exposure, trauma narratives, and indicators of post-trauma adjustment in parents and their children, including measures of posttraumatic stress disorder (PTSD) and posttraumatic growth (PTG). Qualitative and quantitative analyses were applied in exploring the research questions.

The first research aim was to examine how the parents supported their children's coping in the aftermath of the disaster (paper I). We found that parents described an increased awareness of the fact that their children could display behavioral or emotional changes. When parents detected any changes in their children, they attempted to understand the nature and severity of these changes by attributing these to either the disaster experience, or to familiar characteristics of the child. The parents reported a range of strategies aimed at either preventing or reducing symptoms. Their main strategies included re-establishing a sense of safety in their children, resuming their normal family routines, and providing specific coping assistance aimed at children's distress symptoms. Despite the traumatic exposure the children had experienced, most parents believed in the healing effect of resuming normal life. The findings suggest that parents constitute valuable resources for assessing and interpreting distress in their children, and provide coping support.

The second aim was to explore how children and adolescents constructed meaning in this traumatic experience through the construction of narratives (paper II). Three themes seemed to be of particular significance to the creation of meaning in the narratives: a) the reconstruction of control and predictability through narratives, b) the importance of the relational aspects of an experience, including protection and separation from parents and siblings, and c) the distinction between the

shared and the private narrative. The latter findings suggest some of the personal meaning may disappear as a narrative is co-constructed and rehearsed. Contrary to expectations, there were few age differences in the way children and adolescents constructed their narratives and made meaning of their experience.

The third aim of this project was to examine the extent to which the children and adolescents exposed to the tsunami reported PTG, and how reports of PTG related to the disaster exposure, their posttraumatic stress symptoms, and indicators of their parents' symptoms and post-trauma functioning (papers III and IV). The children and adolescents reported PTG as a result of their experience with the tsunami, although to a lesser extent than what has been reported in other disaster studies. The level of fear experienced during the disaster was associated with higher levels of PTG, while their objective exposure was not. Furthermore, posttraumatic stress symptoms were positively related to PTG when assessed concurrently, and PTG was not associated with a greater decrease in symptoms over time. Finally, two indicators of parental post-trauma functioning were positively related to PTG in children. While parents' own PTG was associated with higher levels of growth in the children, parents who had been on sick leave due to the disaster had children who reported lower levels of PTG.

Collectively, the findings in the study contribute to a broadened understanding of the pathways for children's trauma recovery and how parents can contribute to their children's adaptation after disasters.

LIST OF PAPERS

I. Hafstad, G. S., Haavind, H., & Jensen, T. K. Parenting after a natural disaster: The 2004 tsunami. Submitted (1st revision)[1].

II. Hafstad, G. S., von Tetzchner, S., & Haavind, H. Meaning making in children's and adolescents' narratives following the 2004 tsunami. Submitted.

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1. INTRODUCTION

Every year, a large number of children will be affected by disasters of some sort (Masten & Osofsky, 2010). The rise of human violence such as international terrorism and school shootings, as well as several natural disasters around the globe in recent years has accentuated the need for empirical knowledge about how such extreme events impact on children. Disasters differ in severity, and no two individuals will have identical reactions to the same event. Yet, despite these different reactions, the psychological impact of disasters on different individuals may have important similarities. These similarities can enable us to draw conclusions about some basic aspects of human thought and behaviour.

The Tsunami that hit South-Asia on December 26, 2004 was devastating, causing almost 228,000 casualties in Thailand and Sri Lanka (NOAA, 2011). In addition, large parts of Banda Ache were demolished and the number of casualties remains unknown. In addition to the large number of deceased among the people living in the affected areas, several thousand tourists died, and even more were in life-threatening situations. A number of those exposed were children traveling with their families for Christmas vacation. It is estimated that approximately 4,000 Norwegian citizens were in the affected areas. About one-fourth of these were children under the age of 18. Of the 84 Norwegians who died in the tsunami, 26 were children. In Norway, this was the second largest loss of human lives during times of peace, and a large number of citizens were exposed to potentially traumatizing events. These circumstances called for more knowledge about the survivors' experiences, as well as the short- and long-term effects of such an event. Shortly after the disaster, the Norwegian Centre for Violence and Traumatic Stress Studies (NKVTS) designed a study aimed at examining the reactions and adjustment of the Norwegian citizens who had been exposed to the disaster. The present thesis is based on one sub-study of the larger Tsunami project examining the experiences and reactions of affected children and their families.

History has provided numerous examples that children face exposure to trauma in various ways. However, it was not until the beginning of the eighties that systematic research on children's reactions to trauma expanded. At that time, Leonore Terr's studies on the Chowchilla kidnapping, in which children were taken from their school bus and buried alive, were among the first to show that

children may develop lasting and distinctive reactions to traumatic experiences (Terr, 1981; 1983). Subsequent research has replicated and extended these findings, showing that children who are exposed to highly traumatic incidents may respond in a wide variety of ways. Among the most commonly studied psychological effects of exposure to high-impact disasters are posttraumatic stress symptoms and anxiety disorders (Bödvarsdóttir, Elklit, & Gudmundsdottir, 2006; Jensen, Dyb, & Nygaard, 2009; La Greca, Silverman, Vernberg, & Prinstein, 1996; Neuner, Schauer, Catani, Ruf, & Elbert, 2006; Thienkrua et al., 2006; Winje & Ulvik, 1998), but reactions may also include depressive symptoms (Goenjian et al, 2001; Kiliç, Özgüven & Sayil, 2003) and externalizing behavioural problems, such as impulsiveness and aggressive behaviour (Davis & Siegel, 2000; Saigh et al., 2002). Hence, disasters may not only induce posttraumatic stress reactions, but also psychosocial impairments during a vulnerable period of life. Research on the negative effects of disasters has expanded our understanding of the prevalence of symptoms and the development of disorders following disasters, and provided guidance on how such symptoms may be treated in clinical settings.

However, whereas the negative emotional consequences of traumatic experiences are well-documented, less is known about how children understand, represent and make meaning of such experiences. Moreover, despite the devastating consequences disasters may have to individuals, research findings suggest that highly stressful experiences may also, to some individuals, result in positive psychological changes, or personal growth (Tedeschi & Calhoun, 1996). This study aimed to look beyond symptom-related outcomes after the tsunami disaster and examine processes occurring within the children and their families, which may explain how the children cope with, and eventually come to terms with their experiences. Hence, the basic question in this thesis is not what traumatic experiences do to children, but rather what children, adolescents and their parents make out of their traumatic experiences.

1.1. The importance of parents to children's adaptation after trauma

How children cope and adapt after experiencing traumatic events is, among a range of circumstances, determined by their immediate surroundings, and therefore parents are assumed to play a crucial role in this process (LaGreca et al., 1996; Masten & Coatsworth, 1998; Salmon & Bryant, 2002; Vernberg,

et al., 1996). Research dating back to World War II has described the importance of parents to children's experiences of, and adaptation to trauma. In a study of children in London during the German bombing, Freud and Burlingham (1943) observed that children who were separated from their families and sent to safe havens were more traumatized than those who remained with their families in the bombarded city. This work elucidated the impact of family bonds as a protective factor in times of trauma. From this point of the departure, research on parent and family factors contributing to the enhancement or aggravation of children's adjustment and development after trauma has burgeoned. Parents will often serve as first responders in the immediate aftermath of disaster. It is particularly important how they function in their everyday contexts, because their behaviour itself will serve to model, aggravate, or buffer the impact of disaster on children. The issues that have received the most empirical interest within this field have so far been the role of parents' own distress and how parents' efforts to support their children may facilitate children's well-being.

1.1.1. The role of parents' stress reactions

Parents vary in their ability to provide children with sensitive and supportive parenting, whether they are themselves directly exposed to a trauma or not (Cohen, 2009). In the face of their child having experienced a traumatic event, even the most competent parents can face difficulties parenting. Clinical evidence indicates that parental exposure to trauma, and the resulting symptoms, can negatively impact the parents' functioning and their ability to parent and be sensitive to their children's needs (Appleyard & Osofsky, 2003), a notion which has received empirical support as well. Most studies examining the adjustment of children whose parents were also exposed to trauma have found that parental reactions and distress are associated with children's symptoms (e.g., Chemtob et al., 2010; Dyb, Jensen, & Nygaard, in press; Laor, Wolmer, & Cohen, 2001; Smith, Perrin, Yule, & Rabe-Hesketh, 2001). Kiliç and collaborators (2003) studied 35 families with children aged 7-14 who survived the Bolu Earthquake in Turkey. In assessing posttraumatic stress reactions, anxiety, depression, general health and family functioning, they found that when parents (particularly fathers) displayed irritability and detachment because of PTSD symptoms, this affected their children's adjustment. Similarly, among children who were directly exposed to a hurricane, parents' symptoms

of re-experiencing the trauma were associated with higher levels of posttraumatic stress symptoms in the children one year following the hurricane (Gil-Rivas, Kilmer, Hypes, & Roof, 2010).

Furthermore, the level of conflict between parents may influence their children's recovery following a trauma. Wasserstein and LaGreca (1998) found that high parental conflict following Hurricane Andrew was correlated with increased posttraumatic symptoms in children. More specifically, they found that three months following the hurricane, children who perceived their parents as being more conflictual would exhibit more PTSD and anxiety symptoms than children who perceived less conflict between their parents would. Finally, responding to a traumatized child requires certain parental skills, for example, that the parent is able to address reactivity to reminders. If the parent is traumatized this may be difficult because the parent may react to the same reminder. Moreover, the presence of trauma-related symptoms in parents, such as anxiety, avoidance, intrusion and emotional numbing, could interfere with their parenting practices (e.g. Banyard, Williams, & Siegel, 2003) and their ability to maintain family roles and routines (e.g. Ruscio, Weathers, King, & King, 2002). This could again influence the perception of safety and stability within the family.

1.1.2. The role of parental support

Parents' effort can help promote adaptation and recovery in the aftermath of trauma. Even though there is evidence that some children develop well under less than optimal caregiving, studies have consistently identified emotionally competent caregiving as a central variable mediating the impact of risk (e.g. Wyman, Cowen, Work, et al., 1999). The buffering effect of parental support and positive family functioning on children's reactions to trauma has been suggested in several theoretical models (e.g., La Greca, et al., 1996; Pynoos, Steinberg, & Wraith, 1995), and has received substantial empirical support. LaGreca and collaborators (1996) proposed a conceptual model for understanding the development of post-traumatic symptoms in children after a disaster. A main assumption of this model was that the factors influencing children's post-disaster reactions are complex, and that the child's environment plays a central role. When testing this model among a sample of children who had been exposed to a devastating hurricane, they found that children's perceived support from their parents attenuated reports of posttraumatic stress symptoms. Similarly, in a sample of 568 elementary-

school age children, Vernberg and collaborators (1996) found that low levels of perceived social and parental support following Hurricane Andrew was related to posttraumatic stress symptoms 3, 7 and 10 months after the disaster.

Children's adaptive functioning in the immediate aftermath of trauma requires a certain degree of regulatory control to manage emotions. In young children, caregivers provide "scaffolding" for the development of self regulation. Developmental studies have examined how family routines, rituals, beliefs and narratives may work to regulate and protect children (Fiese &Spagnola, 2007). Parents also have an important role in modulating the exposure of children to continuing threats after trauma, for instance by regulating harmful media exposure. Furthermore, the perceptions of children about events are influenced by the adults around them, particularly those they trust. They use adults as sources of information in social referencing processes. Hence, both in the immediate and the longer-term aftermath of trauma, parents have central functions in their children's processing of and coping with experiences.

How parents discuss experiences with their children affects the children's integration of the experience as well as their coping and adapting abilities (e.g. Haden et al., 1997). In a similar vein, conversations children have with their parents about their experiences are considered to be important for the way they appraise and evaluate a particular event (Fivush, Hazzard, Sales, Sarfati, & Brown, 2003). Moreover, the way parents respond to children's narrations and guide the conversations about past events is central to how children express and regulate emotions and employ coping strategies (Eisenberg, Cumberland, & Spinrad, 1998). In this way, parents can help their children in their construction of meaningful narratives.

Parents' responsiveness has also evinced to be central to child adaptation. A caregiver's empathetic acceptance of a child's discussion of feelings and concerns about a traumatic event could help the child interpret and understand the severity and meaning of that event (Salmon & Bryant, 2002). Within that context, parents may also facilitate their children's adjustment by sharing their own perspectives, listening to their children's fears and concerns, helping them appraise and understand what has happened, and providing them with guidance on how to cope (Gil-Rivas, Silver, Holman,

McIntosh, & Poulin, 2007; Kliewer, Sandler, & Wolchik, 1994; Prinstein, La Greca, Vernberg, & Silverman, 1996; Pynoos et al., 1995).

1.1.3. Parenting after trauma

Parenting may refer to more or less specific behaviours and strategies parents engage in, in order to influence, support or enhance their children's behaviour, development or adaptation. A growing number of studies have examined the mediating function of diverse parenting styles and behaviours in the relationship between trauma exposure and child adaptation. The general picture emerging from this research is that parenting described as warm, positive, and supportive is associated with better outcomes in children, while parenting described as rejecting, hostile or coercive is associated with more detrimental outcomes (e.g. Punamäki, Quota & El Sarraj, 1997; Valentino, Berkowitz, & Stover, 2010). For example, Palestinian children who perceived their parents as being rejecting displayed higher levels of neuroticism and lowered self-esteem after being exposed to community violence than children who portrayed their parents as providing intimacy and love (Punamäki et al., 1997). The authors concluded that parenting styles mediate the relationship between trauma exposure and children's psychological adjustments. Furthermore, prolonged trauma exposure, as is the case during war, may disturb some of the basic parental functions, such as protecting children and enhancing feelings of security.

While parents appear to be extremely important in times of war, some studies have proved their significance to children also after isolated traumatic events like a terrorist attack or a high-impact natural disaster. Phillips, Prince and Schiebelhut (2004) found that parents who engaged in behaviour aimed at facilitating coping after the September 11th terrorist attacks reported less distress in their children. They also discovered that parents whose children displayed higher levels of posttraumatic stress symptoms said that they made extra time to talk with their children about the event that had evoked distress. After Hurricane Andrew, parents engaged more in providing coping assistance to their children than did peers or teachers. Moreover, those children who said their parents had undertaken supportive actions to help them cope reported lower levels of posttraumatic stress symptoms (Prinstein, LaGreca, Vernberg, & Silverman, 1996). Parents' views on what constitutes

good parenting practices may also change after exposure to a traumatic event. A study of parents living close to ground zero in New York following the 2001 terrorist attacks demonstrated that parents had changed perspectives as to what they perceived as important in their roles as parents. They became more focused on bonding with their children, as well as loving, protecting, and providing for them (Mowder, Guttman, Rubinson, & Sossin (2006).

In the literature much emphasis has been put on understanding passive markers of risk in the development of post-trauma reactions (Layne et. al, 2006). Markers of risk typically include preexisting conditions, demographic characteristics, etc. Although these aspects are significant, it is important to distinguish between passive risk markers and active operating processes that can contribute to the maintenance of post-trauma responses. Passive risk markers include little intrinsic information concerning what processes contribute to alleviating or aggravating the development of posttraumatic stress (Layne et al., 2006). That is, the literature is now relatively consistent on the fact that parents buffer the risk of negative impacts on children, but has not yet described the mechanisms through which this buffer effect works. Hence, advances in our research should include attention to parenting, as more detailed knowledge about the process through which parents provide support may inform both theoretical and clinical models of children's adaptation to highly stressful experiences.

1.2. A narrative perspective on children's coping with stressful experiences

Children's interpretations of life events and how they relate and subsequently react to such events, will largely depend on how they understand and make sense of what they are experiencing. Meaning depends on what the individual finds to be relevant, and is a basis for establishing "context", that is, the individual's conceptualization or framing of an immediate experience. Meaning is an inherent part of the organization of experiences in the memory system, contributes to the understanding of self and others, and thus is a basis for the continuity and history of the person (cf., Nelson, 2007). Basically, from the child's perspective, making meaning in experiences may be seen as the task of figuring out what is going on, and predicting what will happen next (Daiute & Nelson, 1997). A primary way individuals make sense of an experience is by constructing a narrative, and it is believed that by narrating events in their lives, children create an understanding of the world and themselves (Bruner,

1990). Hence, the way children talk about their experiences, and the meaning they attach to their narratives may have important implications for their adaptation and well-being. The narrative perspective has contributed to expand the knowledge about how children understand, remember and make meaning of everyday events. Relatively less is known about the narratives about negative or stressful experiences that children and adolescents encounter.

1.2.1. Narratives and their functions

A narrative is an account of an experienced or fictional event and is often referred to as a "story". The narrative is usually organized around a chronological structure. It contains a beginning, a high point and an ending, and is held together by a "plot" (Riessman, 1993). According to Bruner (1990) all individuals have expectations about situations in which they participate, and these expectations are based on a cultural meaning, or "folk psychology. When these expectations are violated, people create meaning through constructing narratives.

Children's narratives contribute to the organization of personal meaningful events (Nelson, 1996). Being able to talk about personal experiences is central for how the child develops memories of such events. Furthermore, the way in which an experience is narrated contributes to meaning making. For example, through elaborating on the event and placing it in an evaluating and explanatory context, children can create coherence and meaning in their experience (Fivush, 1991). Hence, narrating an experience may have several functions. Labov and Waletzky (1967; Labov, 1997) distinguish between the *referential function* of a narrative, which includes orienting the listener to the context of the story and talking about the event that occurred, and the *evaluative function*, which describes why the narrative is told, what the point is, and why it is important. Accordingly, they claim that every narrative has an emotional point which appears in the narrative through evaluation. In this way, a narrative is not merely a recapitulation of a past event, but rather a re-construction of an experience, reflecting the individual's cognitive and emotional processing of the event and how he or she has come to think about the event in the present. Narratives thereby constitute the way in which we make meaning of personal experiences (Bruner & Haste, 1987). By allowing for a reappraisal and evaluation of an experience, and by positioning the individual as an active agent in the story, children's

construction of narratives about personal experiences may be vital to their construction of identity as well (Miller, 1994).

Many of the everyday events in a child's life cause little need for the child to explain and find meaning in them because they occur in a setting that is familiar to the child as well as to the persons in the child's environment. Through participating in everyday activities in a culture, children develop cognitive schemas, also referred to as "scripts" (Hudson & Shapiro, 1991; Daiute & Nelson, 1997). Scripts represent how things should be, and can often be relatively detailed in describing the sequences of familiar situations. The script serves as a framework for how to understand what is usually supposed to happen. Thus, when forming narratives about experiences, children need to know which events are usual and which unusual. Based on previous experiences, they activate their knowledge about what should have happened, as compared to what actually happened. Through narrating, children also gain a sense of continuity, and learn to order event sequences and construct a coherent understanding that can be shared with others. The ways in which children organize and narrate their experiences, and the meanings they attribute to them, provide insight into the children's development and understanding.

1.2.2. The development of narrative skills

Children learn to use and understand narrative meanings at an early age (McCabe & Peterson, 1983). In fact, research has suggested that children are able to remember autobiographical events as early as three years of age, and the ability to create causally coherent, cohesive and thematically organized narratives develops gradually throughout childhood and adolescence (e.g. Fivush, Haden, & Adam, 1995; van Abbema & Bauer, 2005; see Nelson & Fivush, 2004 for an overview). Children's narratives of distinct autobiographical events become longer, more complex and structured through the preschool and early school years (Bohn & Berntsen, 2008; Fivush et al., 1995). Four-year-old children are able to give long, detailed and accurate reports of an event that occurred 18 months prior (Hamond & Fivush, 1990) and by the age of six, children are generally capable of making a chronologically coherent narrative, and are adept at constructing narratives about personally experienced as well as fictive events (McCabe & Peterson, 1983). Older children, and those with better language skills tend

to provide more coherent accounts of negative events, and it is subsequently believed that the ability to create a meaningful framework for understanding and reporting events does change with the development of narrating skills (Fivush, Hazzard, Sales, Sarfati, & Brown, 2003).

In the early phases of development, children need guidance and support from adults in order to construct narratives, and hence to make meaning of their experiences. As children grow older, their contributions and elaborations to the narratives become more independent and reflect a broader cultural knowledge (Bohn & Berntsen, 2008; Fivush et al., 1995; van Abbema & Bauer, 2005; Nelson & Fivush, 2004).

The actual amount of children's event knowledge will influence their ability to create coherent and detailed narratives about particular events (Hudson and Shapiro, 1991). As event knowledge will increase with age (Salmon & Bryant, 2002) a child's age may influence his or her narrative construction. Finally, the ability to create a coherent narrative about a single event develops earlier than the ability to present a coherent life story. In a study of third-to-eighth graders, Bohn and Berntsen (2008) found that while third-graders were fully able to create coherent stories about neutral and positive events, children this age could not produce a coherent life story. Thus, young children's ability to integrate autobiographical stories into a narrative about themselves may not yet have been fully developed.

1.2.3. Narratives about stressful events

Children take part in a wide range of events, comprising both positive and negative emotions, and sometimes also have dramatic experiences with high emotional involvement. So far, research has shown that children's narratives about negative experiences will often be more organized and contain more descriptions of their reactions and emotions (internal state language) than are their narratives about positive experiences (Fivush et al., 2003). In a study of children (aged five to 12) growing up a violent community, they found that the children's narratives about positive events included more description of objects and people. Narratives about negative events, on the other hand, included less descriptive details, but were told more coherently. This may reflect a difference in their need for creating coherence, understanding and meaning out of what happened.

A range of studies have examined the coherence and contents of children's narratives after stressful events, including for instance traffic accidents (Salter & Stallard, 2004), community violence (Fivush et al., 1993), and a hurricane (Fivush, Sales, Goldberg, Bahrick, & Parker, 2004). So far, these studies have primarily focused on how children recall and recollect information about these events (e.g. Bakrick, et al., 1998; Fivush, 1998; Fivush et al., 2004). In general, these studies have shown that memories of events that occur frequently are more schematic and less detailed than memories of single occurrences (see Nelson, 1996; Hudson, Fivush, & Kubeli, 1992, for overviews), and that traumatic events are recalled at least as well as everyday events (e.g. Fivush, 1998). However research suggests that as the level of stress increases, amount of recall may decrease (Bahrick et al., 1998). Some of the studies have also focused on the identification of elements in the narratives that have previously shown to contribute to better psychological outcomes, including for example emotion words or internal state language (i.e. statements signifying cognitive processing, e.g. "think", "believe"). Generally, children use more statements reflecting emotions and cognitive processing when narrating stressful experiences, suggesting that these experiences have initiated a search for meaning (e.g. Fivush, Sales, & Bohanek, 2008).

There are few studies investigating the narratives that children construct after having been exposed to high-impact disasters. Given the potential of such disasters to cause lasting distress in children and adolescents, it is central to develop an understanding of how such narratives are constructed, how they contribute to meaning making, and eventually how they help the individuals come to terms with their experiences. One of the few studies within this field was conducted as part of the larger project from which the present study also reports data. This study examined understanding and causal attributions in the narratives of Norwegian 12-year-olds after the 2004 tsunami (Iglebæk & Jensen, 2008). They found that the children provided rich and coherent narratives. Moreover, despite facing exposure to the devastating disaster, the majority of these children attributed the outcome of the event to luck. Given the range of other, possibly worse outcomes, these children made use of counterfactual thinking, evaluating their own survival as opposed to how things could have turned out. Those findings provided new and important knowledge about the structure of children's disaster narratives and how children understand the outcome of a disastrous event. As such, the study served as

a background and inspiration for a further examination of how the tsunami narratives are constructed and told, and thus contribute to meaning across different age groups.

Negative experiences represent a greater discordance with the expected than do positive experiences (Bruner & Haste, 1987), and consequently, the need for constructing a meaningful narrative becomes more prominent. It also seems that having experienced a traumatic event may influence the way children construct narratives in general. Oncu and Wise (2010) examined the way children completed short stories, another way of narrating, two years after experiencing an earthquake in their home town. In this study, the researchers found that traumatized children were more likely to construct severely negative endings to the short stories, suggesting that their traumatic exposure might have affected their attribution of some events, and consequently the way they constructed their narratives.

Whereas it has been shown that narratives of negative events often are more elaborated than those of positive experiences, the creation of coherent and meaningful narratives may be more difficult in some situations than in others. Peterson and Biggs (1998) found that children who were more distressed about an injury necessitating an emergency room visit told less coherent and less evaluative narratives than did children who were less distressed by such events. This may reflect that children experiencing highly emotional events may have to work harder to process and understand these events both as they are occurring and in retrospect. Similarly, in a study of children's narratives of children who had experienced sexual abuse, Mossige and collaborators found that such narratives were generally less elaborate, less organized and less coherent than the same children's narratives about other events (Mossige, Jensen, Gulbrandsen, Reichelt, & Tjersland, 2005). Hence, the fact that these experiences violated cultural norms, and thus were difficult to both make sense of and talk about, may have made the narration of these experiences more difficult.

It is assumed that children's ability to make sense is important in how they cope with stress and traumatic events, and on how such events affect on their emotional well-being (Pennebaker & Seagal, 1999). In fact, clinical interventions for individuals who have experienced trauma usually include an element of narrative construction in order to help the individuals develop detailed and coherent accounts of what occurred (Cohen, Mannarino, & Deblinger, 2006; Foa & Kozak, 1987;

Neuner, et al., 2008). Fivush, Marin, Crawford, Reynolds and Brewin (2007) investigated nine- to thirteen-year-old children who were engaged in expressive writing sessions, of which one group wrote about stressful events in their lives and another group wrote about everyday unstressful events. The group who wrote about stressful events displayed lower levels of depression, anxiety and somatic symptoms than did the other group, indicating that explicit narrating may influence the well-being of children. Overall, existing research has indicated that narrating stressful events may be important, but also difficult in some situations. However, knowledge about how children construct narratives after highly traumatic events, and eventually how these narratives contribute to meaning making, is still limited.

1.3. Posttraumatic growth

The idea that the experience of adverse life events may be transformed into positive changes in the form of personal growth is not new, and can be found for instance in ancient Hebrew, Greek, Christian and Islamic writings (Tedeschi & Calhoun, 1995). However, for a long time the phenomenon of positive outcomes in the face of adversity was put aside as it was regarded as difficult to operationalize and explain, and therefore of little research interest. It was not until 1996 when Richard Tedeschi and Lawrence Calhoun published their first article on the construction and validation of a scale measuring positive changes (Tedeschi & Calhoun, 1996) that researchers started paying attention to how this phenomenon can be examined scientifically. Over the last decade, research on personal growth after adverse experiences has subsequently burgeoned.

1.3.1. The transformation of trauma into positive change

Various conceptualizations of perceived benefits or positive outcomes following trauma have advanced in the literature, including *positive psychological changes* (Yalom & Lieberman, 1991), *benefit finding* or *construing benefits* (McMillen, Zuravin, & Rideout, 1995), *posttraumatic growth* (Tedeschi & Calhoun, 1995), *stress-related growth* (Park, Cohen, & Murch, 1996), *thriving* (O'Leary, 1998) and *adversial growth* (Linely & Joseph, 2004). These concepts all refer to the observation that adverse experiences may lead to positive changes for the individual. They do, however, differ slightly

with regard to what elements of change they comprise and to some extent what kind of adverse experience they have been reported as being in relation to. For instance, whereas stress-related growth and benefit finding could refer to a broad array of negative and stressful experiences, including everyday stress (for instance divorce, non-lethal medical illness), posttraumatic growth refers to reports of lasting positive change following an unusually stressful event (Tedeschi & Calhoun, 1996).

The theoretical conceptualization of posttraumatic growth draws on the presumption that most individuals develop a set of fundamental assumptions about the world through their early experiences and relationships with care-givers (Janoff-Bulman, 1992). These assumptions depict theories or schemas that the individual holds about the self, the world and other people, and allow the individual to perceive the world as relatively safe, fair, predictable and controllable, and other people as generally good (Janoff-Bulman, 2006). Major trauma can shake, shatter, or distort these basic world assumptions, which again may lead the individual to engage in efforts to cope with, search for meaning in, and understand what has happened (Janoff-Bulman, 2006; Tedeschi & Calhoun, 2004). To some people this process of meaning making allows them to view aspects of themselves and their relations to other people or the world in a new, different, and importantly, a more positive way. According to Neimeyer (2000), narratives of trauma and survival are always important in posttraumatic growth, because the development of these narratives forces the individual to confront questions of meaning and how it can be constructed.

Common forms of positive post-trauma changes have been grouped into five categories: perceived changes in the self (e.g. increased personal strength), relationships with others (e.g. feeling closer to other family members, feeling more compassionate towards others), world views (e.g. philosophy of life or basic values) and future changes, such as enhanced coping or healthy behavioural practices (Affleck & Tennen, 1996; Tedeschi & Calhoun, 2004, McMillen, Smith, & Fisher, 1997), or religious faith (Tedeschi & Calhoun, 1996).

A central assumption in the theoretical framework is that growth does not occur as a direct result of trauma, and that a certain level of emotional struggle in the aftermath is assumed to be crucial in fostering growth. Tedeschi and Calhoun (1996) employ the metaphor of an earthquake to describe the process through which trauma can be transformed into changes that are perceived as positive. In

their description truly "seismic" distress is viewed as necessary to have an impact on the individual's basic assumptions about the world. Ongoing distress (often in the form of intrusive ruminative thoughts) and, subsequently, one's efforts to reconcile this new reality, facilitate a constructive cognitive reprocessing of the trauma (Calhoun & Tedeschi, 2006; see Watkins, 2008). This cognitive reprocessing is theorized to contribute to the re-working of one's internal working models, schemas, or assumptions about oneself, others, and the world. The fundamental change in schemas is believed to be crucial for growth to occur following adversity (Calhoun & Tedeschi, 2006; Janoff-Bulman, 2006). Consequently, it is assumed that posttraumatic growth takes time to develop.

1.3.2. Posttraumatic growth and resilience

Much research and theory on salutogenic outcomes after adverse events has drawn from literature on resilience, which shows that many individuals remain psychologically healthy despite having grown up under very difficult circumstances (e.g. Rutter, 2006). Given that both posttraumatic growth and resilience reflect unexpected positive outcomes after adverse life events, the concepts are often confused in the literature. For instance it is debated whether posttraumatic growth is a form of resilience (Lepore & Revenson, 2006) and whether posttraumatic growth is superior to resilient outcomes (e.g. Westphal & Bonanno, 2007).

The term resilience has earned various definitions, but most researchers now agree upon a description as being "*relative resistance to environmental risk experiences, or the overcoming of stress or adversity*" (Rutter, 2006). Posttraumatic growth, on the other hand, refers to "*a change in people that goes beyond the ability to resist and not be damaged by trauma: it involves a movement beyond pre-trauma levels of adaptation"* (Tedeschi & Calhoun, 2004, p. 4). Accordingly, whereas resilience implies the ability to sustain a stable functioning despite adversity, posttraumatic growth refers to a development or change in the way the individual perceives herself or certain aspects of her life.

Theoretically and by definition then, these concepts seem to be distinguishable. Few empirical studies have thus far examined the relationship between these trajectories, partly because the concepts have been treated as identical. However, given that posttraumatic distress is often reported in individuals experiencing posttraumatic growth (Joseph & Linley, 2004; Helgeson, Reynolds, &

Tomich, 2006) it has been assumed that a certain amount of distress may be necessary for the individual to start a search for meaning and subsequently develop posttraumatic growth. Accordingly, individuals who show resilient outcomes may have had little need or opportunity for developing posttraumatic growth. Westpahl and Bonanno (2007) argue that it is unlikely that resilient individuals would engage in the meaning-making behaviours associated with posttraumatic growth, because they tend to struggle less than individuals who were more affected by the trauma.

1.3.3. The relationship between posttraumatic growth, distress and well-being

Existing research suggests that the relationship between posttraumatic growth and positive health outcomes is somewhat complex. While some studies have found better adjustment or greater well-being in individuals who report posttraumatic growth (Alisic, van der Schoot, van Ginkel, & Kleber ; Helgson et al., 2006), others have found that reports of growth are primarily related to negative outcomes such as, for instance, political extremism (e.g. Hobfoll et al., 2007) and lack of forgiveness (Laufer, Raz-Hamama, Levine, & Solomon, 2009), and a number of studies have documented a positive relationship between posttraumatic stress symptoms and posttraumatic growth (Linley & Joseph, 2004).

These divergent findings may be due to at least two factors. First, the time passed since the event seems to moderate the relationship between posttraumatic growth and distress, that is, posttraumatic growth is more likely to be related to positive outcomes like positive well-being and quality of life when the length of time since the traumatic event has increased (see Helgeson et al., 2006 for a meta analysis). Second, the relationship between distress and growth may be curvilinear rather than linear. Lechner, Carver, Antoni, Weaver and Phillips (2006) found that reports of positive changes were greater in individuals who reported moderate levels of distress, and lower in those who reported either very high or very low levels of distress. This finding suggests that there may be an "optimal" level of stress that is necessary to initiate a process of growth. When levels of stress are too high, the capacity to reconstruct, reframe and make meaning may be overwhelmed.

This suggests that negative and positive consequences of trauma can co-exist and may be seen as independent dimensions rather than opposite ends of a continuum (Linley & Joseph, 2004).

Theoretically, this co-existence between distress and reports of positive changes has been explained in terms of the cognitive processes that accompany the symptoms of distress and precede the expressions of growth. That is, the continuing distress and the individual's struggle with his or her new reality after a traumatic event have been hypothesized to serve as important catalysts for the growth process by facilitating deliberate rumination (Tedeschi & Calhoun, 2004; Tedeschi, Calhoun, & Cann, 2007).

1.3.4. Posttraumatic growth in children and adolescents

The cognitive and affective elements of the process through which posttraumatic growth is hypothesized to developed have made some authors question children's capacity for experiencing and reporting such changes (Cryder, Kilmer, Tedeschi, & Calhoun, 2006; Milam et al., 2004). The attributions children make about their experiences, their repertoire of coping skills and strategies, and their capacity to attend to and report on internal states may also vary across different ages and differ from that of adults (Alisic et al., 2008; Kilmer, 2006; Osofsky, 2004; Salmon & Bryant, 2002; Kilmer & Gil-Rivas, 2010).

The study of positive psychological changes in children and adolescents is a rather novel area of research, as there were no published studies examining this issue before 2004. At that time, Salter and Stallard (2004) conducted a study on posttraumatic stress in children who had been in a road traffic accident, and discovered that the participants also mentioned positive changes as a result of their traumatic experiences. Secondary qualitative analyses of notes taken during the initial interviews showed that almost half (42%) of their participants (aged seven to eighteen) reported positive post-trauma changes that resembled those described in adults (Tedeschi & Calhoun, 1996).

Since then, a modest but growing number of studies have examined children's and adolescents' reports of growth following adversities such as life threatening illnesses (e.g., Barakat, Alderfer, & Kazak, 2006), natural disasters (Cryder et al., 2006; Kilmer & Gil-Rivas, 2010), incidents of terror (e.g., Laufer, Raz-Hamama, Levine, & Solomon, 2009; Laufer & Solomon, 2006; Laufer, Solomon, & Levine, 2010; Milam, Ritt-Olson, Tan, Unger, & Nezami, 2005), and a broad and varied range of potentially traumatizing events (Alisic et al., 2008; Ickovics et al., 2006; Milam, Ritt-Olson, & Unger 2004). All of these studies documented that children and adolescents, at least to some extent,

may report positive changes after exposure to highly stressful or traumatic experiences. The youngest sample reporting such changes was comprised of children as young as six (Cryder et al., 2006), but it is not clear whether older children and adolescents report more or less growth than do younger children. For example, while some researchers found that adolescents reported higher levels of growth than did younger children (Milam et al., 2005; Barakat et al., 2006), others failed to find a relationship between positive changes and age (Cryder et al., 2006; Laufer et al., 2006).

Furthermore, like with adults, a positive correlation between reports of positive change and posttraumatic stress symptoms in children has been documented in several studies (Alisic et al., 2008; Barakat, Alderfer, & Kazak, 2005; Kilmer & Gil-Rivas; 2008, Laufer & Solomon, 2006), while posttraumatic growth has shown a negative relationship to anxiety, depression (Milam et al., 2005), and alcohol or substance abuse (Milam et al., 2004, Milam et al., 2005). All these studies reported on cross sectional data, and very few studies have explored the relationship between posttraumatic stress, posttraumatic growth and indicators of positive adjustment longitudinally. Ickovics and collaborators (2006) examined the association between growth and distress over 18 months in a group of urban adolescent girls who recalled their most stressful event from the last year. Their results revealed that posttraumatic growth predicted decreases in distress over the 18 months when controlling for pre-event levels of distress. This was a prospective design, and the findings suggested that there could be positive consequences of perceived growth in adolescents.

Some studies have suggested that posttraumatic growth may also be associated with positive adjustment or positive traits. For instance, Alisic and collaborators (2008) found that, in a community sample of children between eight and twelve years old, posttraumatic growth was associated with posttraumatic stress, but also with a greater quality of life. In a study of youth exposed to the terrorist attacks on New York City, those who reported high levels of growth also reported greater optimism (Milam et al., 2005). Additionally, the study of children exposed to a hurricane in the U.S. reported that posttraumatic growth was positively related to belief in their own competence (Cryder et al., 2006).

Finally, the social environment is considered important in the transformation of a traumatic experience into posttraumatic growth. Having the opportunity to talk about the traumatic experience

and disclose one's emotions related to the experience may facilitate a child's construction of meaningful narratives and offer perspectives that can be integrated into schema change (Tedeschi & Calhoun, 2004). Although parents play an important role in their children's adaptation and narrative construction after trauma, few studies have explored the degree to which caregiver characteristics and the family environment may contribute to the development of perceived positive changes in children and adolescents.

2. THE PRESENT STUDY

2.1. Setting: The tsunami in Southeast Asia, 26 December, 2004

On the morning of December 26, 2004, an underwater earthquake in the Indian Ocean caused a massive tidal wave that hit the coastlines of Southeast Asia and eastern Africa. Many of the affected areas were well known for their popular resorts, which were hosting several thousand tourists over the Christmas holidays. Many of these were families travelling with children. Totally unprepared, these families found themselves in a life-threatening situation and were forced to flee from the water masses. Some were physically injured and many witnessed horrific scenes.

However, unlike the people residing in the affected areas, these tourists could be relocated quite soon after the disaster and return to the safety of their homeland within one or two weeks. Although some of these people had lost their loved ones during the disaster, and some had serious injuries, the secondary stressors that normally accompany natural disasters were minimal for a large number of these tourists. The present study was part of a larger project examining different aspects of the aftermath of the tsunami[1], as it turned out for the Norwegian families involved. A number of works related to the present material have been published (Dyb, Jensen & Nygaard, in press; Jensen, Dyb & Nygaard, 2009; Lingaard, Iglebæk & Jensen, 2009; Nygaard, Jensen & Dyb, 2010; Stormier & Jensen, 2008).

[1] Tsunami research group consisted of: Head of the research program Professor Lars Weisæth, and fellow researchers (in alphabetical order) Grete Dyb, MD PhD, Gertrud Sofie Hafstad, Cand. Psychol, research fellow,Trond Heir, MD PhD. Ajmal Hussain, MD research fellow, Tine K. Jensen, Dr.Psychol. Camilla V. Lindgaard,Cand. Polit,Egil Nygaard, Cand.Psychol, Siri Thoresen, Dr.Psychol, and Arnfinn Tønnesen, Dr.Psychol.

2.2. Aims and research questions

This primary aim of this study was to examine how children understand, make meaning of and cope with their experiences with a disaster, and how parents may contribute to their children's coping. More specifically this study aimed to 1) examine how the parents supported their children's coping in the aftermath of the disaster, 2) how children and adolescents create meaning of this traumatic experience through the construction of narratives, and 3) examine the extent to which the children and adolescents experience posttraumatic growth as a result of their exposure to the tsunami, and how reports of posttraumatic growth related to the disaster experiences, their posttraumatic stress symptoms, and indicators of their parents' symptoms and post-trauma functioning. The following research questions were pursued in this thesis:

1. How did parents perceive and monitor their children's well-being in the time following the tsunami, and how did they attempt to support their children's coping?
2. How do children construct narratives about their disaster experiences and how do these narratives contribute meaning making?
3. Do the children and adolescents report posttraumatic growth, and if so, which aspects of their tsunami experience, the children's posttraumatic symptoms, family functioning and parental adjustment are associated with such changes in children and adolescents?

3. METHOD

3.1. Recruitment and participants

The present study was part of a longitudinal study of Norwegian citizens who were exposed to the 2004 tsunami in Thailand. Data were collected approximately 6 months, 10 months and 2 ½ years after the disaster. Participants were originally identified through the Norwegian police agency's lists of 2468 citizens returning to Oslo International Airport from the exposed areas. Each adult citizen on these lists received a postal questionnaire (June, 2005, T1) containing questions about their tsunami exposure and posttraumatic reactions. Of the 899 adults responding (33.9% response rate), 210 had been travelling with children (n = 317) for whom they completed a separate questionnaire.

Participating families were contacted for a follow-up interview (T2) approximately ten months post-disaster, and 87 parents (41.4%) of 147 children agreed to take part. A second follow-up interview was conducted 2 ½ years post-disaster (T3), and 68 parents (78.1% of those who completed T2 and 32.4% of those who completed T1) of 107 children agreed to participate. Two of the children had not been in areas affected by the disaster, according to parent reports, and were therefore not included in the present study. Attrition analyses showed that youth participating in follow up phase (T3) did not differ significantly from those who took part in the first (T1) and second (T2) phase of the study with regard to gender, age, trauma exposure or posttraumatic stress symptoms.

The present study included participants from the last two phases of the longitudinal study and, as such, the total sample was comprised of families of 147 children and 89 parents at T2, and 105 children and 67 parents at T3. Table 1 provides an overview of subsamples in each of the four papers.

Table 1. Overview of the subsamples in each paper

	Participants	Age	Focus of paper
Paper 1	51 Parents	33–53 (*M* = 43.1, *SD* = 5.2)	Post-trauma parenting
Paper 2	17 children	8-10 (*M* = 9.1, *SD* = 0.9)	Narratives and meaning
	24 adolescents	14-16 (*M* =15.0, SD = 0.8)	making
Paper 3	105 children and adolescents	6-17 (*M* = 12.3, *SD* = 3.3)	PTG and PTSS
Paper 4	105 children and adolescents	6-17 (*M* = 12.3, *SD* = 3.3)	Parent characteristics
	67 parents	32-55 (*M* = 42.0, *SD* = 5.4)	associated with child PTG

Note: Age at the time of the disaster (December 2004). Actual age at the time of interview will vary due to the longitudinal nature of the study. .PTG = posttraumatic growth, PTSS = Posttraumatic stress symptoms.

Paper I examined parents' accounts of their parenting after the disaster. This information was gathered in the first interview (T2). Only parents whose children were highly exposed to the disaster were included. Thus, the sample in paper IV consisted of 51 parents.

The purpose of paper II was to examine how children and adolescents make meaning of a traumatic experience by constructing narratives. The participants in this study were selected with two purposes: 1) to obtain narratives of children and adolescents who had been highly exposed to the disaster and 2) to obtain a certain age range, in order to examine how narration and meaning making unfolds in a broader age group than what had been studied previously. Thus, the sample was comprised of one group of children (ages 8-10) who were assumed to be old enough to provide relatively coherent narratives about their experience (cf. McCabe & Peterson, 1983) and one group of adolescents (ages 14-16) who were assumed to have acquired the skills to present coherent and rich narratives with a clearly available evaluation. Narratives of all the eligible children and adolescents in these age groups who were classified as highly exposed to the tsunami were included in the sample. The final sample was comprised of 17 children and 24 adolescents.

Papers III and IV examined reports of PTG and factors predicting PTG in children and adolescents. The outcome measure for PTG (Posttraumatic Growth Inventory for Children – Revised) was administered at T3 only, and the samples in these papers thus consisted of the 105 children and adolescents who took part in this follow-up interview. Paper IV examined the relationship between parental health, functioning, and PTG in children. One of the 68 parents taking part in the follow-up interview had not completed the PTGI, and was thus excluded from this analysis. Thus, 67 parents were included in paper III.

3.2. Materials

3.2.1. Interviews

Children and parents were interviewed separately, and interview guides for each were developed in order to capture issues that were assumed to be central to the experience of and coping with the disaster. For both children and parents the interview at T2 was comprised of two parts: 1) a recapitulation of the trauma experience, i.e. a *narrative,* and 2) a set of open-ended questions intended for a more in depth examination of specific elements of the experience and trauma aftermath. A main purpose of the project was to examine trauma narratives of children, and the interview was developed specifically to obtain narratives that were as complete and rich as possible.

The tsunami experience was recapitulated in the first interview. All the children and adolescents were presented with the following narrative-inducing introduction: "I know that you and your family were in Thailand at Christmas. While you were there something happened. Please tell me about that". The interviewers let the narration proceed freely without attempting to lead the child or adolescent towards chronology, but provided prompts if the narration seemed to discontinue before a full account had been obtained. Prompts were also used if the individual seemed to give little information about events that seemed significant in the narrative, for instance particularly distressing elements or high points in the narrative. These kinds of questions and prompts are likely to provide narrative opportunities (Riessman, 2004; Hydén, 2000) and allow for an interview setting in which the child is in focus as the expert.

After the children had provided their guided narrative, the interviewer asked open-ended questions intended to elicit what, in the child's own judgment, had been the most distressing part of the experience, how he or she tried to cope with their distressing emotions, and the child's understanding of the outcome of the disaster event when evaluating it in retrospect.

The parent interview was conducted in much the same manner and with the same underlying assumptions and requirements as the child interview. Parents were presented with a narrative-inducing question, which was followed up by semi-structured questions about their own reactions and how they coped during and after the disaster, as well as questions about how their children reacted and coped with the experience. In addition to these aims, the parent interview was also designed to elicit information about how they looked upon their children's reactions and behaviour after returning home, and how they had tried to help their children cope with what had happened.

3.2.2. *Measures*

Tsunami-related exposure

Children: The degree of exposure each child experienced was indicated by parental reports in the first phase of the study (T_1), i.e., six months post-disaster. Based on information about the potentially traumatizing events that were experienced during the tsunami, an exposure scale was developed for this study. It included 10 yes/no exposure items, including being in the area where the

tsunami struck, being in physical danger, being caught by the water, being separated from a caregiver, witnessing physical injuries or deaths of others, and experiencing the death of a closely related person. A total exposure score was calculated by adding the items endorsed (range 0-10).

Parents: Parents responded to 22 questions concerning potentially traumatizing events that they had experienced during the disaster. Four of the items included a direct life threat ("What were the chances that you could have died?"), or physical danger (e.g. "Were you caught by the wave?", "Did you flee from the flooding?", while the remaining items described examples of disturbing witnessing experiences (e.g., "Did you see body parts detached from their bodies?", "Did you see masses of dead bodies?", or "Did you see children who were separated from their caregivers?"). A total score was obtained by adding all of the items that were endorsed. Items indicating a threat to life or physical integrity were allocated double weight in order to identify those who experienced the most severe trauma exposure, rather than only a high sum of less severe experiences.

Subjective exposure

Children: At T2, all children completed a scale designed to measure their peritraumatic distress, i.e. how distressed or scared they had felt as the disaster was going on. These self-reported emotional reactions during the disaster were measured via 9 items from the University of California, Los Angeles Posttraumatic Stress Disorder (UCLA PTSD) Index –Revision 1 (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998). The first nine items of the PTSD-RI retrospectively assess the subjective feelings of distress during, or immediately after the event including, for example: "Were you scared that you would die?", "were you scared that you would be hurt badly?"), and "did you feel very confused?". A total subjective exposure score was obtained by adding all the items the children agreed with. The UCLA PTSD Index was translated to Norwegian, using a back-translation procedure.

Posttraumatic stress symptoms

Children: The children completed the UCLA PTSD Reaction Index Revision 1 (Pynoos, et al., 1998; Steinberg, Brymer, Decker, & Pynoos, 2004). The 20-item scale assesses DSM-IV (APA, 1994) PTSD-related symptoms: re-experiencing (i.e., intrusive memories, nightmares; five items), arousal

(i.e., irritability, sleep difficulties; five items), and avoidance (i.e., avoiding people, activities, feelings; seven items). The scale also includes two items assessing other symptoms of clinical significance (i.e., fears of recurrence and trauma-related guilt). Items assess the frequency of the symptoms in question, with response options ranging from 0-4 ("none" to "most of the time"). A total PTSD symptom score was calculated by summing across 17 items (six of the items are collapsed into three scores). Possible scores range from 0 to 68, and the authors suggest that a total score of 38 or greater indicates the presence of probable PTSD (Steinberg et al., 2004). The questionnaire was translated to Norwegian, using back-translation, and the measure showed a good internal consistency, α =0.82 at T3.

Parents: Parents' posttraumatic stress symptoms (PTSS) were measured by the Impact of Event Scale–Revised (Weiss & Marmar, 1997) at T2 and T3. The IES–R consists of 22 questions regarding intrusive thoughts, avoidance, and hyper-arousal and is highly correlated with other measures of PTSD (Weiss, 2004). Respondents were asked to focus on the tsunami experience as the stressful event and each item was rated for frequency of occurrence in the past 7 days on a weighted four-point Likert-type scale (0 = not at all, 1 = rarely, 3 = sometimes, 5 = often). The IES total score had good internal consistency, α = 0.93.

Posttraumatic growth

Children: The Posttraumatic Growth Inventory for Children-Revised (PTGI-C-R, Kilmer et al., 2009) was administered at T3. Each youth responded to 10 items which assessed changes in five PTG domains: *New Possibilities* ("I have new ideas about how I want things to be when I grow up"); *Relating to Others* ("I feel closer to other people (friends and family) than I used to"); *Personal Strength* ("I learned that I can deal with more things than I thought"); *Appreciation of Life* ("I know what is important to me better than I used to"); *Spiritual Change* ("My faith (belief) in God is stronger than it was before"). Children responded on a 4-point scale (0 = no change, 3 = a lot of change). Alpha for the original scale = 0.77 (Kilmer et al., 2010). The Norwegian version was obtained by translation and back translation and was approved by the authors. The measure demonstrated adequate internal reliability α = 0.74.

Parents: Parents completed the PTG Inventory-Revised (PTGI-R, Tedeschi & Calhoun, 1996; 2004) at T3. Participants responded to 21 items that covered five domains of PTG: *New Possibilities, Relating to Others, Personal Strength, Appreciation of Life,* and *Spiritual Change*. Participants responded using a 6-point scale (0= no change to 5= high degree of change). Sum scores were calculated for each domain and then for the full scale by adding all items. Norwegian translation was approved by the authors and was obtained by standard translation procedure. The Cronbach's alpha for the full scale was 0.86, indicating a good internal consistency.

Family functioning

A subscale from the Family Environment Scale (FES) (Moos & Moos, 1994) measuring family cohesion was administered at T2. The subscale consists of nine statements with yes/no response categories. The Kuder-Richardson-20 coefficient for this dichotomous scale was 0.59. Due to the low internal consistency of the scale, item-analyses were performed in order to identify the items with low discriminatory power. For the *Cohesion* subscale, only six of the nine items had a discriminatory power between 30 and 70, and these six items were retained in the analyses as a measure of child-reported family cohesion. The remaining six-item scale had an adequate internal consistency of 0.73.

The cohesion subscale of the FES was completed by the parent sample as well. The scale proved low internal consistency (*K-R-20* = .59) and did not improve notably after the removal of items with lower discriminatory power. Thus, this scale was discarded from further analyses.

3.3. Procedures

The parents provided written consent prior to participation, and children provided written assent. All participants were informed that they could withdraw from the study at any time during the interview. Face-to-face interviews with the families were conducted in their homes, approximately 10 months and 2 ½ years after the disaster. Children and parents were interviewed separately, in separate rooms when possible. The interviews were conducted by experienced psychologists, psychiatrists and educators who had received a two-day training period in the use of the interview protocol.

Polkinghorne (2005) claims that "qualitative interviewing cannot be reduced to a set of techniques or instructions, but rather relies on the skilled judgment of the interviewer to move the conversation along" (p. 143). However, by training all interviewers we aimed to improve interviewer skills and secure a certain consistency in data collection. The training of the interviewers had three specific purposes: 1) enable interviewers to respond to participants displaying negative reactions in response to the interviews 2) increase the consistency of the way the narrative was obtained (e.g. avoid leading questions, only encourage the participant to elaborate or to move on in their narration), and 3) increase accuracy and consistency of the way the standardized measures were administered.

Audio-taped interviews were transcribed verbatim, including minimal phrases (e.g., um, hum) and pauses, and describing the interviewee's expression of emotions during the interview. Pauses were also included in the transcripts. Any identifying information was deleted from the transcripts, and each participant was assigned a code number in order to protect confidentiality.

3.4. Data analyses

3.4.1. Qualitative analyses

Qualitative analyses were employed in papers I and II. Paper I examined parents' reports about how they perceived their children's conduct and fulfilled their needs in the time following their return from the disaster-affected areas, and what they did to help their children cope. The structuring of the interviews gave some direction to the qualitative analysis of how parents tended to their children. First, the parents' records of their parenting practices in the aftermath were informed by their descriptions of their own and their children's disaster exposure and experiences during the disaster. Second, the three open-ended questions allowed for an interpretation of parent statements about how they observed and acted towards their children in the context of their everyday life at home.

The analyses in this paper were guided by the Consensual Qualitative Research framework (CQR) (Hill, Thompson, & Williams, 1997). The CQR framework initially departed from *grounded theory* which involves the development of a conceptual network about related constructs about a phenomenon (Glaser & Strauss, 1967). On this basis, Hill and collaborators attempted to develop a more rigorous form of analyses primarily aimed at strengthened the credibility and replicability of the

analysis. As such, this method emphasizes cooperation between researchers in order to ensure multiple perspectives, and reduce subjective bias. CQR offers some general concepts for describing the different steps in an analysis process and levels of abstraction in extracting meaning from the data, including 1) the development of *domains* from the transcripts, 2) creating *core ideas*, or summaries of all text excerpts under each domain, and 3) creating *categories* through cross analysing the core ideas . Hill and colleagues suggest that researchers compare their coding of domains, core ideas (for all text excerpts), and categories in order to reach an agreement about the content of the core ideas. If any coding diverges, codes are discussed with reference to the text excerpts until an agreement is reached. Ideally, according to this framework, the data material should include a small number of cases, and a research team of three to five researchers should read and code all cases. Finally, one to two *auditors* should check that the research team does not overlook important data. This process requires extensive resources, and the present study has not followed these recommendations rigidly. However, all material has been coded by two researchers, and domains, core ideas and categories have been agreed upon by consensus.

Paper II examined children's meaning making through their narratives, and a central question was how an event could be best described and analysed when the aim was to understand its psychological impact. Polkinghorne (1995) distinguished between two ways of analysing the narratives of human experience. In the first approach, the *narrative analysis,* the aim is to create a coherent story out of verbal accounts about an event. As noted by Catherine Riessman: "Precisely because they are essential meaning-making structures, narratives must be preserved, not fractured, by investigators, who must respect respondents' ways of constructing meaning and analyze how it is accomplished" (Riessman, 1993, p.4). Hence, the analysis of narratives as coherent stories could be helpful in the understanding of meaning making processes after traumatic events.

In the second analytic approach described by Polkinghorne, which he termed *analyses of narratives*, one does not focus on the narrative as a whole, coherent story, but rather focuses on elements of a narrative that are thought to illuminate certain aspects of human thinking. Such an approach could, for example, include explicit or implicit efforts to make meaning of an experience (in

this case emotional and evaluative expressions). In paper II, we primarily employed a *narrative analysis*, and Labov and Waltezky's (1967) narrative model was applied as an analytic tool. This model was originally based on linguistic theory, but Labov and Waletzky also emphasized the evaluative, meaning-making function of narratives, and the model has thus been widely used as a tool for examining personal narratives (see Peterson & McCabe, 1997). Such a model allows for the examination of elements in the narrative, as well as how the narrator connects these elements to each other, thereby illuminating the causal attributions and expressing an understanding of what happened and why it happened. Labov and Waletzky described six stages of personal narratives: 1) *Abstracts or introducers*, marking the beginning of the story, summoning the listener's attention, 2) *Orientations*, describing the background and setting for the story, 3) *Complicating actions*, describing events or actions leading up to the high point, 4) *Evaluation*, providing emotional information about the experience, 5) *Resolution,* recapitulating the event after the evaluative high point and resolving the high point, and 6) *Coda,* which is added to the end of the narrative, closing the story and bridging the narrative to the present context.

The children and adolescents in the present project provided long and rich narratives which would be difficult to present in their complete form in the format required for scientific articles. Thus, in order to shed light on the meaning-making processes in the narratives, the elements of the Labovian model were presented successively with descriptions and examples of how each of these elements were experienced and narrated by the child. Efforts were made to show how the children and adolescents tended to connect these elements by using illustrative examples.

3.4.2. Statistical analyses

Statistical analyses were employed in papers III and IV. The dependent variable in both papers was child reported PTG (PTGI-C-R). Missing data were handled by a Maximum Likelihood Estimation (MLE) procedure. MLE makes estimates based on the maximization of the probability (likelihood) that the observed covariances are drawn from a population assumed to be the same as that reflected in the coefficient estimates (Schafer & Graham, 2002).

Frequencies, means and standard deviations were calculated for the key study variables. In papers III and IV bivariate analyses of factors related to PTG scores were conducted using Pearson's product moment correlation. Due to the sampling procedures in this study (the sample was recruited through family units), the data consisted of 105 children nested in 67 families. In a data set which is structured like this, the respondents for whom the independent variable is measured cannot be seen as independent observations, since the correlation within families is assumed to be higher than that between families. Hence, the assumption of the independence of measurements, on which regression analysis is based, is violated (cf. Hox, 2002). Clustered sampling (two sampling levels: families and children) may lead to alpha inflation and increase the actual level of Type I errors.

Intraclass correlations (ICC; Shrout & Fleiss, 1979) were calculated in order to detect any systematic differences found between the family clusters. In papers III and IV, the variance between families was substantial and accounted for 41% of the total variance in child and adolescent scores in the dependent variable, a fact that required a statistical method that could account for this data dependency. Mixed Linear Models in SPSS version 16.0 was used in paper III as they allow for simultaneous regressions of data from different sampling levels (e.g., family and individual level) in the dependent variable, thereby correcting for systematic sampling errors. In paper IV, parent data were included in addition to the youth data, which added the problem of data aggregation (parents with several children were counted more than once).

As family-related information was only provided by one parent, these respondents represented the level 2 units. In this sample, thirty level 2 units only contained one level 1 unit, that is, 30 families had only one child. Such a data structure is not optimal in the use of multilevel analyses. Despite sparse data, it has been recommended in the available literature to employ a multilevel approach to analysis as long as the model converges. However, researchers are encouraged to refrain from introducing additional random effects (Clarke, 2008; Kenny, Kashy & Cook, 2006), that is, effects that vary between family samples. Therefore, we only allowed the intercepts of the regression lines specific for each family to vary randomly between families. Calculations for paper IV were conducted in MLwiN 2.10 (Rasbash, Browne, Healy, Cameron, & Charlton, 2008).

3.5. Ethical considerations

This study includes children and parents who had experienced a potentially traumatizing event, and some of whom were bereaved in the disaster. It is debated whether participation in research interviews about potentially traumatizing experiences may represent additional strains on the individuals involved. However, research has indicated that participants may find such interviews meaningful and even beneficial, and that the risks of reactivating posttraumatic stress symptoms through the interview are minimal (Griffin, Resick, Waldrop & Mechanic, 2003). It was recommended by the National Committee for Research Ethics in the Social Sciences and the Humanities in Norway that trained clinicians (psychologists, psychiatrists and educators) conducted the interviews, as they would have the competence necessary to respond to participants' concerns adequately, as well as refer them to appropriate help services if required. This recommendation was followed in the current project.

Interviewing children also raises some ethical concerns, particularly those related to informed consent and confidentiality. Care was taken to provide all participating children and adolescents with simple and understandable information about the purpose of the questions asked and how data would be treated to ensure confidentiality. It was also explained to the children and adolescents that all information would remain confidential, even from their parents, unless issues of considerable concern (e.g. severe symptoms, suicide ideations etc.) were raised or discovered during the interview. Moreover, it is considered important that young participants in research feel confident that what they say will be treated respectfully, and that they can withdraw from the interview situation if they feel uncomfortable or for any other reason feel like reconsidering their participation. In this study, all participants were informed that they could withdraw at any time before or during the interview.

4. RESULTS

4.1. Summary of paper I

Parenting after a natural disaster: The 2004 tsunami

This study examined how parents' proceeded to help their children cope with their experiences in the aftermath of the disaster. Parents' statements about how they perceived their children's needs and cared for them after they had survived the disaster revealed two steps that allowed them to get a better

understanding of their children's well-being and therefore fulfil their needs. First, the majority of the parents described a heightened awareness that their children could show emotional or behavioural changes in the time following the disaster. Thus, they monitored their children, looking for signs of distress. Second, when parents identified behavioural or emotional signs that could reflect distress in their children, they interpreted whether or not these signs were alarming. Their interpretations were based on knowledge about their children's pre-disaster functioning and personal characteristics, and knowledge about their children's exposure to and experiences in the tsunami disaster. These interpretations allowed parents to evaluate whether the behavioural or emotional changes of their children needed intervention. Thus, the monitoring served as an aid for the parents in determining whether, and what kind of support was required.

Parents engaged in supportive actions aimed at preventing the occurrence of symptoms and reducing symptoms when they did occur. These parenting strategies could be divided into three categories: *Resuming normal roles and routines*, *providing a sense of safety*, and *providing coping assistance,* i.e. supportive actions aimed at specific symptoms or distress. A substantial overlap in the reported practices indicated that parents tried out several different strategies in order to help their children cope. Parents who were themselves severely impacted by the disaster reported a reduced ability to assess their children's reactions and therefore felt less able to provide optimal care in the aftermath.

4.2. Summary of paper II

Meaning making in children's and adolescents' narratives following the 2004 tsunami

This study examined how children and adolescents constructed meaning in their narratives about the disaster. All children and adolescents who had experienced a high degree of exposure provided narratives with a beginning, a high point and an end. An often-reported theme was the lack of control and a feeling of helplessness. The children's and adolescents' narratives focused on early signs or warnings of the disaster, although these were not always appreciated as warnings at the time that they were experienced. By emphasizing these signs in the narratives, the children attached meaning to them

by including them as indicators of what was about to happen. In this way the children seemed to re-establish a sense of control or predictability through the construction of their narratives.

While the presence of the parents was described as enhancing the children's sense of safety, separation from the parents or siblings was by many described as the most distressing part of the disaster experience. Some, described separation (from loved ones) as even more distressing than being in a life-threatening situation. Given the magnitude and force of the disaster, the attribution in the narrative of the parents as protecting them may not correspond with the objective reality of the situation, but rather had a central role in the children's efforts to make meaning of why they managed so well despite the danger they were exposed to. There was a tendency that evaluations volunteered in the free narrative (the first non-prompted narration) did not match those that emerged during further questioning, a finding that might reflect that children tell different narratives in different settings, and that a "social narrative" may not always reflect the psychological impact of the traumatic event. Finally, the adolescents generally provided longer and more elaborate narratives than did the younger children, but the content of the narratives and the way they included evaluations and created coherence did not differ notably by age, suggesting that the meaning-making processes did not differ between the children and adolescents in this sample.

4.3. Summary of Paper III

Posttraumatic growth among Norwegian children and adolescents exposed to the 2004 tsunami

This study examined children's and adolescents' reports of posttraumatic growth and how that growth related to disaster exposure and posttraumatic stress symptoms. Fifty-two percent of the children and adolescents in the sample reported a high degree of positive change in at least one of the ten items covered by the Posttraumatic Growth Inventory for Children-Revised. On average, children and adolescents in this sample reported modest positive changes. Among the different dimensions of posttraumatic growth assessed by the PTGI-CR, the least endorsed questions were those concerning a spiritual or religious change. The dimension assessing an increased appreciation of life obtained the highest scores in this sample. No age differences in the reports of posttraumatic growth were detected.

These children's and adolescents' self- reported peri-traumatic emotional reactions during the tsunami (i.e. subjective exposure) were positively and significantly related of posttraumatic growth, suggesting that the level of fear experienced in a disaster is central to the development of positive post-trauma changes. Posttraumatic stress symptoms measured concurrently with posttraumatic growth were also significantly related to the reports of growth in that higher levels of PTSS were associated with higher levels of posttraumatic growth. Finally, posttraumatic growth was not related to changes in posttraumatic stress symptoms over time. Children and adolescents who experienced significant decreases in symptoms from 10 months to 2 ½ years after the disaster did not display higher levels of posttraumatic growth at 2 ½ years. This latter finding indicates that posttraumatic growth was not related to symptom reduction over time.

4.4. Summary of paper IV

Parental adjustment, family functioning, and posttraumatic growth in Norwegian children and adolescents following a natural disaster

This study examined how parents' posttraumatic stress symptoms, posttraumatic growth and indicators of health after the tsunami related to posttraumatic growth in children. We found a positive association between posttraumatic growth in children and their parents, indicating that parents who themselves reported higher levels of posttraumatic growth had children who reported higher levels of growth. This suggests that social processes play a role in the development and expression of posttraumatic growth in children and adolescents.

Children whose parents were absent from work due to sickness for at least two weeks because of the tsunami reported lower levels of posttraumatic growth. Self-reported parental traumatic stress symptoms were not related to the levels of posttraumatic growth reported by the children and adolescents. There findings indicate that parents' reduced functioning is associated with less posttraumatic growth in their children. Contrary to our expectations, family functioning, defined as family cohesion reported by the children, was not significantly related to children's reports of posttraumatic growth.

5. DISCUSSION

The findings in this study may be most comprehensively discussed with reference to the context in which they have been brought forward. The special characteristics of the tsunami disaster and the situation that followed for the Norwegian children and their families who were exposed to it constitute a central frame and a background for the further discussion of the results.

The tsunami disaster happened suddenly and unexpectedly, and with a tremendous force. No one could have anticipated that it was going to happen and no one had time to get prepared. Instantly, these families found themselves in a life threatening situation in a foreign country. In addition to the fear and injuries some experienced, the children and their parents also witnessed the deaths and suffering of others as well as vast material damages. In addition, after the immediate life-threatening situation was over, and due to the subsequent breakdown of communications, difficult evacuation and lack of information, the exposure to the disaster was prolonged for most of the individuals involved. This experience was, however dangerous and painful, shared among the surviving members of the family. Since there were presumably few secrets and little guilt involved, they could also have continued this sharing in the aftermath. All the Norwegian tourists were able to return to the safety of their homes relatively soon after the disaster, which enabled most of them to resume something akin to a normal everyday life. Hence, in this setting, it was possible to study the impact of the disaster event itself on the children and their families, relatively independent of the secondary stressors that often accompany disasters like the tsunami. This study was one of the first to examine the impact of a natural disaster in such a manner.

All these circumstances must be taken into consideration when interpreting the findings. In the following discussion the focus will be on how the findings from the four papers jointly contribute to a broader understanding of the processes of meaning making and posttraumatic growth in these children and adolescents, and how their most immediate source of support, their parents, may contribute to this process.

5.1. Discussion of main findings

5.1.1. Scaffolding and watchful waiting in post-trauma parenting

Most parents in this study seemed to believe in the healing effect of resuming normal life (paper I). In their efforts to help their children to cope with the disaster experience the parents attempted to re-establish a sense of safety in their children as well as resume their usual roles and routines as soon as possible. They emphasized being emotionally supportive, and tried to return to normal family life as soon as they were able to do so. Within the frames of this safe, supportive family life they monitored their children's actions and reactions, looking for signs of distress, but trying not to intervene if it was not required. Reluctant to interfere with their children's own ways of coping with what had happened, the parents adjusted their support to let the children use *their own* strategies as long as possible. This parenting approach can be referred to as scaffolding (Wood, Bruner & Ross, 1976). The concept of scaffolding was inspired by Vygotsky's (1986) concept *zone of proximal development*, which refers to the zone of development between what the children can accomplish by themselves and what they can accomplish with assistance. This is a metaphorical concept describing how children, aided by a more competent person, can cope with something that they were initially not able to on their own.

Scaffolding is a general parenting strategy, originally developed to describe children's learning processes under normal conditions. Yet, the present finding suggests that this is how parents proceed to help their children to cope – also in a situation where it could be expected that both parents and children experienced distress or psychological vulnerability. Theoretically, scaffolding has been conceptualized as a way parents support children's development, that is, a movement to a higher level of achievement. In the present sample, the development of skills did not always seem to be the main concern of the parents, in that they primarily attempted to avoid a regression in their children's development. For instance, they provided more help with homework, and put a greater than usual effort into helping their children pursue sports and social activities, and in this way tried to prevent their children from lagging behind in any of their everyday activities. However, given that this help allowed the children to manage their activities and process their experiences in a way that they probably would not have been able to without this assistance, it could be assumed that this kind of support would foster development in children.

The ways in which parents observed and monitored their children's actions and reactions, along with their focus on being available and supportive to them could be referred to as "watchful waiting". This concept refers to a way of monitoring the progression of potential reactions over a period, in order to determine whether the child needs extra care or treatment. This seemed to be the way that most of the parents in the present sample handled their concerns about how the disaster may have affected their children. This again suggested that this way of "keeping an eye" on the children while providing a feeling of safety was a quite intuitive parenting strategy. The parents' ways of providing care after the tsunami mirrored parenting practices that in previous studies had been associated with better outcomes in children (e.g. Prinstein et al., 1996; Punamäki et al., 1997), as well as findings on how parents' focus on parenting had changed after their children's trauma exposure (Mowder et al., 2006). The situation that these families faced during and after the tsunami may have facilitated the parents' provision of support to their children. That is, the shared experience of the tsunami and their safe surroundings after returning home may have enhanced their ability to provide the warm and sensitive support that has been associated with positive child adjustment in several studies (e.g. Valentino et al., 2010). It is worth recognizing that the children in the present project reported fewer symptoms of PTSD compared to children in other disaster studies (Jensen, Dyb & Nygaard, 2009). However, whether low levels of symptoms in the children made it easier for parents to go on with their usual parenting strategies, or whether the support from the parents reduced the level of symptoms in these children, could not be determined within the frames of this project. The finding highlights the proactive nature of parenting after trauma, and suggests that parents take use of their existing repertoire of parenting practices when approaching their children after a traumatic event.

5.1.2. The narrative as a meaning-making device

There are no preset rules for how an individual can best make meaning out of a personal experience, and "meaning" has been conceptualized in a wide variety of ways. Labov (1997) suggested that the evaluation in a narrative, i.e. the point in the narrative at which the narrator expresses emotions, marks the point that is of particular significance to the individual and thus serves as a central device for meaning making. Pennebaker and Seagal (1999) suggested that being able to express the emotional

content of an experience may contribute to the health-promoting function of narrating. Subsequent research on children's meaning making after stressful events has relied on this notion, and has often used emotional statements as one of several markers of meaning making (e.g. Fivush et al., 2003).

A central, unexpected finding in paper II was thus that the children and adolescents often had not volunteered their presumably most emotional (i.e. the most distressing) part of their experience in the narrative, or they mentioned this experience only in passing and in an unemotional manner that did not seem to reflect its personal relevance. Inclusion of emotional expressions or emotional content in the narrative has been suggested to indicate that the child is trying to make sense through integrating what happened with a subjective perspective on one's thoughts and emotions (Fivush & Nelson, 2006). On the other hand, however, it has been suggested that the lack of evaluative statements in a narratives may be either due to high levels of stress (e.g. Peterson & Biggs, 1998), or to a reduced need for making meaning (Sales et al., 2005), maybe because the distress has been resolved.

With reference to the present finding, this may reflect the adaptive function of the narrative. It may be that the children and adolescents had over time processed their experiences in such a manner that in talking about the tsunami, they no longer focused on its most distressing parts. Presumably, these elements no longer activated distress in the children and thus seemed less relevant to them. Many of the participants mentioned an event in their spontaneous recounting during the interview, which, only when specifically asked about it later, they referred to as particularly distressing. This may suggest that children's and adolescents' integration of initially distressing elements into the narrative, without attributing emotional value to them, reflects a healthy processing of the experience. This interpretation is supported by the findings in that we did identify high points, evaluation or emotional expressions in almost all the narratives, although the most distressing experience was not included. This again, could suggest that their evaluation, or meaning of the event, had shifted from what they now recalled as the most distressing experience, to another part of their experience that still seemed relevant to them, but not as emotional. Thus, the narratives seemed to serve as important devices for making meaning after the tsunami.

It is also possible that the findings reflect the co-constructed nature of narratives. The disaster and its aftermath, including other people's interest in listening to stories about the event, may have

allowed the children and adolescents to have the opportunity to tell their story several times, and several of the narratives may therefore have been rehearsed. Additionally, they had likely been exposed to the stories of many others who had also been in the areas exposed to the tsunami. Importantly, narratives constructed in an interview situation may be unique for this particular situation, and may differ from narratives that the children would construct under other circumstances, for example within a trusting relationship with a therapist. The narratives will be influenced by the presence of listener, the expectations of the child and the listener and how the child understands the interview situation (Westcott & Littleton, 2005). Co-construction may be a good way of processing the experience and creating a narrative (cf. Haden et al., 1997), but rehearsing a story may not contribute to meaning-making if the individual's personal elements are not integrated into the narrative.

5.1.3. Using narratives to (re)construct a sense of control and predictability

The children's and adolescents' narratives focused on early signs or warnings of the disaster, although these were not always appreciated as warnings at the time that they were experienced (Paper II). By emphasizing these signs in the narratives, the children attached meaning to them by including them as indicators of what was about to happen. Edward Bruner (1984) suggests a distinction between *life as experienced* and *life as told*, thereby illustrating the function of the narrative. A dramatic event may occur unexpectedly and the individual has no way of predicting the occurrence of the event or knowing how things will turn out. At the time, the experience causes confusion and distress, and may be traumatic, partly because the individual has no knowledge of how and when the event will end. The narrative is always constructed after the event, and sometimes, like in this case, a long time after the event has ended. At this time, the narrator knows how the event was resolved, and may also have more or less factual knowledge about what caused the event, or at least which circumstances preceded the traumatic part, or the high point. This is a central point in the process of narrating. As Jerome Bruner claims "[*the autobiographical narrative*] *is an account given by a narrator in the here and now about a protagonist bearing his name who existed in the there and then, the story terminating in the present when the protagonist fuses with the narrator*" (Bruner, 1990, p. 121). Hence, the narrator knows something that the protagonist in the narrative (who is identical to the narrator) does not know. In this

way the individual is allowed to be an active agent in his or her own narrative, even though this may not have been the case at the time when the narrated event occurred. Therefore, the individual gets a chance to reconstruct the story about the traumatic experience, and this reconstruction is believed to have a healing effect (e.g. Pennebaker & Seagal, 1999). The traumatic event cannot be undone, but it can be retold in a meaningful way that can help the individual to "move on".

Even if a long time has passed since the event, the high point of the narrative may still keep some of the affective quality that the individual experienced at the time, otherwise the narrative would probably have no reason to be told (Labov, 1997). As opposed to the event as it was experienced, however, the narrative provides an understanding of precursors, and brings the high point over to a resolution and subsequently to a configuration. In this way, the children and adolescents are enabled to build a bridge of meaning in the narrative. In Janoff-Bulman's (1992) terms, through narrating their experience in this way, the children may reestablish a basic assumption about the world as being mostly safe and predictable. Most previous research on adults' meaning making after trauma has focused on meaning as finding a reason, higher meaning or benefits in the experience (e.g. Ai, Cascio, Santangelo, & Evans-Campbell, 2005; Davis, Nolen-Hoeksema, & Larson, 1998). These studies have to a large extent relied on the meaning-making framework developed by Park and Folkman (1997). While global meaning includes the individual's enduring beliefs about oneself and the world, as well as core assumptions (see Janoff-Bulman, 1992), situational meaning, on the other hand, refers to an individual's appraisal of current events that determines his or her coping responses.

Global meaning encompasses individual beliefs about meaningfulness, controllability, predictability and the fairness of the world, as well as causation and personal control. Global meaning is believed to be fairly stable, as individuals tend to interpret new information in light of these already existing assumptions. Situational meaning involves the appraisal of current events and includes perception of personal relevance of and coping with the event, and the meaning the individual attaches to the event after it is over. According to this theoretical framework, when the individual's perception of the experience does not match his or her core assumptions about the world, an incongruence between the two meaning levels occurs and a meaning-making process will be initiated in order to reduce dissonance. This closely resembles what has been assumed to happen when children's scripts

about situations are violated (e.g. Bruner, 1990). Although scripts differ from world assumptions in several respects, experiencing a flooding would be in discord with most people's beliefs of the world as being safe, controllable and predictable, but also their scripts about what is usually supposed to happen. Thus, such an experience would most likely initiate a search for meaning by considering what the experience means to the individual, how it has affected the individual and how it could be appraised and construed in order to make sense. As shown in paper III, the children and adolescents in this sample did report positive changes, which according to this framework would be considered as a form of benefit finding, or meaning.

Using another analytic approach than the one used in the present study, Iglebæk and Jensen (2008) found that none of the Norwegian twelve-year-olds attributed the outcome of the tsunami disaster to some form of global meaning, like the malice of other people, destiny or religious explanations. Rather, their explanations included for example being luck to survive, or personal abilities that helped them survive. This finding could reflect that the attribution of the event to global meaning is an abstract form of thinking about experiences that requires a certain knowledge or level of reflection that may not be present at this age. However, the finding may also reflect some central characteristics of the disaster, such as that the tsunami was caused by nature, and no human intentions could therefore be attributed to the understanding of why it occurred. Thus, the tsunami might have been a disaster that did not necessarily bring about questions about why it happened and why so many people were affected.

5.1.4. Situational and cultural aspects of posttraumatic growth

Children and adolescents in this study reported that their experience with the tsunami had resulted in positive changes to their views of themselves, the world, and their relationships with others, two and a half years after the tsunami. This finding suggests that in children, like in adults, consequences of traumatic experiences may extend beyond specific symptoms to encompass broader areas of life, and that even relatively young children report posttraumatic growth. The levels of posttraumatic growth in this study were considerably lower than those reported in studies examining children and adolescents after disasters in the U.S. (e.g. Kilmer and Gil-Rivas, 2010), but relatively similar to what was found

in a group of children and adolescents in Holland who reported on a wide range of traumatic experiences (Alisic et al., 2008). This suggests that situational factors related to elements of the trauma experience may influence the amount of change reported, but also that cultural factors may play a role in the expression of posttraumatic growth.

First, the fact that the Norwegian children in this study reported lower levels of posttraumatic growth than what has been reported by children in other disaster studies may reflect differences in the central elements of the disaster-related traumatic experiences. Comparing the reports of the Norwegian children to the study that examines the most comparable disaster, the children from the United States who were exposed to hurricane Katrina, the children and adolescents in the present study were faced with serious exposure and fear, but were relatively soon returned to the safety and comfort of their home environments. This may have reduced their experiences of ongoing disaster-related adversity in the time that followed the tsunami. It is normally difficult to disentangle the effects of the exposure to the traumatic event itself and the secondary stressors that follow the event. As long as children keep living in the environment in which the traumatic event occurred, there will be markers of the events, either in the form of physical destruction or change (e.g. having to move homes, go to another school) or reminders of the experience. The magnitude of the trauma exposure that the children and adolescents in the present study faced during the tsunami, and the relatively low levels of posttraumatic growth reported by these children and adolescents may therefore suggest that the low level of secondary adversities could contribute to the findings.

Few studies have explored posttraumatic growth in children and adolescents outside the United States (see Alisic et al., 2008 for an exception). However, studies from countries around the world have typically found lower scores on the PTGI in adults, as well as individual items or dimensions from the PTGI that are not endorsed in the manner observed in U.S. samples (e.g., Shakespeare-Finch & Copping, 2006). McMillen (2004) suggests that the U.S. culture may promote the consideration of the positive side of an experience to a greater extent than other cultures.

Other cultural factors may also have influenced the present results. For instance, the items reflecting spiritual growth exhibited the lowest absolute means in the current study and therefore seemed to contribute disproportionately to the relatively low mean total score. In contrast, the children

exposed to Hurricane Katrina along the U.S. Gulf Coast reported their highest levels of growth in these same items (Kilmer et al., 2009). The latter finding may reflect the children's contexts, "a region widely-regarded as high in religiosity" and may also have been influenced by faith-based explanations or the encouragement of faith-based coping strategies by caregivers and other adults (Kilmer et al., 2009, p. 251). In contrast, Norway, similar to many other European countries, has gone through a considerable secularization in recent decades (Statistics Norway, May 5, 2009). It could be suggested that while several other cultures, including some of the cultures in the U.S., tend to rely on a "folk religion" helping them to explain and cope with difficult life events, the Norwegian culture relies more on a "folk psychology". Thus, in this cultural context, it is not surprising that the children in this study reported few changes in this domain. Similar results have been found in studies with adults outside the U.S., such as in Europe (e.g., Znoj, 2005), Australia (Shakespeare-Finch & Copping, 2008), and Japan (Taku, 2010).

5.1.5. Family aspects of posttraumatic growth

Parents who reported positive changes for themselves had children who also reported higher levels of posttraumatic growth. This association remained when controlled for circumstances like the degree of trauma exposure and posttraumatic stress symptoms. Theoretically it has been assumed that parents' emotional protection of their children is largely afforded by the emotional and interpretational investment of close, caring parents (e.g. Janoff-Bulman, 2006). These parents provide an environment in which their children can understand and attempt to incorporate traumatic experiences into their world views. By doing this, parents can help a child achieve resolution and make meaning of an event. Such support from parents is thought to foster posttraumatic growth in trauma's aftermath (Kilmer, 2006; Tedeschi & Calhoun, 2004). It is possible that parents who experienced positive changes in themselves after the disaster may therefore listen to and encourage their children to reframe the event and its consequences in a more positive way.

Some specific features of the study sample may shed light on the relationship between posttraumatic growth in children and their parents. First, the parents and their children experienced approximately the same traumatic events. A central assumption in the theoretical conceptualization of

the posttraumatic growth process is that being able to disclose emotions and thoughts about an event is necessary for being able to process the experience in a way that makes growth possible. Sharing the experience of trauma, like the children and parents in the present study, may have contributed to facilitating the disclosure of emotions and thoughts between family members, as each family member's experiences during the tsunami would to a large extent already be familiar to the other family members. Moreover, Tedeschi and Calhoun (2004) posit that the cognitive processing of trauma experiences that contributes to growth can be facilitated by self-disclosure in a supportive social environment.

Second, all the families participating in this study returned home to a safe environment, where, for the most part, the parents' capacity to take care of their children's emotional and other needs may not have been markedly influenced by the traumatic circumstances experienced (see also paper I). Strategies like reframing the event and focusing on being the "lucky ones" who survived have been evident in the post-trauma cognitions of adult survivors after the tsunami (Teigen & Jensen, 2011), and positive changes in family functioning have been reported in another study that examined the parents' reports in this project (Lindgaard, Iglebæk & Jensen, 2009). The findings from the present study add to the overall picture of these adults as applying positive attributions to the experience of the tsunami in several ways.

It could be that families in which both the parents and children reported high levels of posttraumatic growth share some characteristics with other families who reported positive changes as a result of an adverse experience. Research on posttraumatic growth in adults has found that certain personality traits, like optimism and openness to experience, relate positively to posttraumatic growth (e.g. Zoellner, Rabe, Karl, & Maercker, 2008). In a related manner, Walsh describes what she termed *family resilience*, which suggests that some families posit some "shared facilitative beliefs" which help them to create meaning and promote optimism, which in turn enables them to cope better with negative experiences (Walsh, 2003). For such meaning to be made, it is necessary that the members within the family rely on each other in order to overcome challenges. Walsh suggests that the outcome of the coping process that resilient families go through is a personal transformation of the members in the family (p. 407), thus defining resilience in a manner close to what has been termed posttraumatic

growth in the literature pertaining to that area of research. Whether there are some family types or endurable family traits that may characterize families as high in posttraumatic growth is still unclear. However, the existing research literature suggests that this could be one possible explanation for the present finding.

Parents who reported having leave from work after the disaster had children who reported less positive change than did the children of parents who had been able to go back to work. It may be that, if the concerns around health and well-being were pronounced enough to limit the parents' abilities to work, they may have been significant enough to influence their parenting and, more specifically, their emotional availability, energy, and overall capacity to support their children, help them make sense of the tsunami experience, and adapt following the disaster. In that case, this finding supports existing theory on the role of parents' posttrauma functioning and responsiveness to posttraumatic growth. However, we did not identify other indicators of parents functioning or distress in this study that were associated with higher or lower levels of posttraumatic growth in the children.

5.1.6. The adaptive function of posttraumatic growth

Findings in the present study (paper III) showed that higher levels of posttraumatic growth were associated with higher levels of posttraumatic stress two and a half year after the tsunami. Moreover, the reduction in PTSD scores over time was not found to be associated with higher or lower levels of posttraumatic growth. These findings beg for a discussion about the adaptive function of the posttraumatic growth concept. The utility of the concept as well as research within this area have in some measure relied on assumptions about the extent to which reports of growth are linked to subjective well-being, positive health outcomes or adaptive functioning in other areas of life (cf. Hobfoll et al., 2007). The present findings indicate that adverse reactions do not seem to be ameliorated by more positive attributions of the trauma, or the other way around: positively perceived changes after trauma do not depend on symptom improvement. This finding blends in with the inconsistency of the literature that discusses the adaptive role of posttraumatic growth (e.g. Helgeson et al., 2006). Although self-reported PTSS decreased significantly between T2 and T3, the decrease in PTSS was not found to be associated with higher levels of growth. Hence, posttraumatic growth

seemed more closely related to the enduring distress experienced by these children than to the reduction of stress or distress over time.

The finding may reflect that posttraumatic growth is a distinct construct from "good adjustment" (Kadell, Regehr & Hemsworth, 2003). In fact, Calhoun and Tedeschi (2006) claim that "posttraumatic growth may not be good from a utilitarian perspective – the presence of posttraumatic growth is not necessarily accompanied by greater well-being" (p. 7). On the other hand, thinking positively about oneself, even if this positive perception is unrealistic or even illusory, may be adaptive to the psychological well-being of the individual (Taylor & Armor, 1996). However, two factors must be taken into consideration when interpreting this finding. First, although the reduction in posttraumatic stress symptoms was significant from ten months to two and a half years after the disaster, the numbers were still low and there was little variation in the symptom levels. This may have contributed to the findings in a negative way in that the restricted range in scores leads to an underestimation of the effects.

Second, positive adjustment after trauma may not be viewed exclusively as the presence of low levels of posttraumatic stress symptoms. In fact, the findings in the present study support existing empirical findings as well as theoretical conceptualizations suggesting that posttraumatic growth and posttraumatic stress symptoms reflect two distinct dimensions in posttraumatic adaptation (Kilmer, 2006; Lecher et al., 2006; Tedeschi & Calhoun, 2004). An example may illuminate this point. A 14-year old girl was taking a morning bath as the tsunami hit the shore and dragged her under water. She got stuck under a pile of drift wood, and the pressure from the water broke her back. Her subsequent spinal cord injury paralyzed her lower body and left her unable to walk. Over time, as she processed the impact that the tsunami had on her life, she seemed to arrive at the conclusion that life is vulnerable and even started to think that there was meaning in this having happened to her. During her rehabilitation she made new friends, and upon thinking back, she realized she had managed to do things that she could never have imagined she would. As a consequence, she now feels that she has grown personally in some respects. However, she is still unable to walk. Does that mean the personal growth she experiences is not valid? If we consider posttraumatic growth and posttraumatic stress symptoms as separate dimensions, the analogy should apply to this relationship as well. It could be

argued that the reports of positive changes after trauma simply illustrate the diversity of human nature: human beings are able to hold several different emotions simultaneously.

5.2. Methodological reflections

In the present project qualitative and quantitative analyses were employed in examining the different research questions. Each of these analytical approaches has their strengths. While quantitative research is particularly suited to establish the recurrence of events or phenomena, qualitative approaches explore processes and the various contexts in which the phenomena are situated (Bruhn Jensen, 2002). Thus, the analytic approaches used relate to the topic being investigated and the objectives of the studies. The use of qualitative and quantitative analyses within the same research design may, when applied appropriately, contribute to a greater comprehension of a phenomenon (Tashakkori & Teddlie, 2003). However, the use of such research designs concurrently may also raise concerns regarding diverging frameworks for evaluating the consistency, credibility and transferability of the findings and inferences (cf. Kvale, 1996; Lund, 2005). The following discussion will highlight methodological issues that are of particular relevance to the present thesis.

5.2.1. Could the interview situation influence the trustworthiness of the data?

The last two phases of the larger study, from which this particular project has drawn most of its data (except information about disaster exposure), were interview studies. The interviews focused on a potentially traumatizing event and how the participants had coped with it. The primary informants in this study were children, and the primary purpose of the interviews was to examine the meaning that this traumatic experience had for the children. As such, the design of this study was considered well suited the objective.

However, certain aspects of the interview situation required a reflection. The willingness of the children to disclose sensitive information would to some degree rely upon their trust in the interviewer, and interviewers may differ in their ability to create such a trusting atmosphere. In the present study, clinicians who were trained in, and used to, talking with individuals about sensitive matters conducted all the interviews. Particular efforts were made to have interviewers who were

experienced in talking with children in clinical settings to conduct the child interviews. In this way, efforts were made to enhance the possibility of a trusting atmosphere in the interviews, and so that the children and adolescents (and their parents) felt comfortable enough to bring up issues of personal significance. However, the issues examined in the study were potentially sensitive matters, and the interviewer was in any case a stranger. These circumstances will inevitably influence what information the child or parent provide as dialogues are always influenced by the context in which they take place (Westcott & Littleton, 2005).

The self-report instrument that was applied to assess posttraumatic growth in two of the papers included a set of positively worded questions suggesting desirable characteristics like personal strength and closer relationships with other people (III and IV). This measure was administered orally. This measure in particular, as it was administered orally, may have been influenced by demand characteristics, i.e. the participants wish to represent themselves in a socially desirable way (Ganster, Hennesey, Luthans, 1983). This could have contributed to inflating the scores.

5.2.2. Reliability of the scales

In papers III and IV standardized scales are employed in order to assess the dependent and independent variables. Indices of reliability describe the extent to which the measured score on a variable is reproducible. Cronbach's α is one of the most commonly used measures of internal consistency. In papers III and IV of this study, multiple scales were used to measure the concepts of interest. With one exception, the α[2] for each of the sum-score indices were .70 or higher, indicating acceptable levels of internal consistency (Nunnally & Bernstein, 1994). The tsunami exposure scales for children and for parents had moderate alphas, ranging from .55 to .68. This is a formative index which is constructed by a range of different events reflecting aspects of the tsunami experience. Such a multifaceted index would not be expected to demonstrate very high internal consistency, given the diversity of aspects covered by the instrument. One of the scales employed in paper IV, the Family

[2] The correct indication for the internal consistency of dichotomous scales is Kuder-Richardson 20 (KR-20). The formula for calculating the KR-20 is identical as for Cronbach's alpha (Pedhazur & Schmelkin, 1991), and for simplicity reasons KR-20 is often referred to as alpha. The correct indication for each scale has been used in the papers.

Environment Scale (FES) proved a low internal consistency in its original form (.59). However, by removing the items with particularly low discriminative power, the remaining five items obtained an adequate internal consistency of .73. Removing almost half the items from a scale may have influenced the content and meaning of this scale, a notion that should be kept in mind when interpreting the data.

5.2.3. Construct validity

Construct validity refers to the degree to which the variables in a project accurately reflect the constructs of interest (Shadish, Cook, & Campbell, 2002). The present study has largely relied on measures that have established validity in previous research (see section 3.2.2.). However, the Posttraumatic Growth Inventory for Children which was used to asses the dependent variable of papers III and IV is a fairly new measure, and validation data is therefore still limited. Kilmer et al. (2009) found that children could engage the temporal component of the questions, which inquire about the changes experienced since the event, and the results were consistent with the theory and hypotheses. Findings by Alaric et al. (2008) also support this measure's utility.

However, several issues concerning construct validity arise when the measure is employed both as a self-report measure, and in fairly young children, which was the case in the present study. A central concern is whether it is possible to measure posttraumatic growth in very young children, given the hypothesized cognitive and affective requirements of the process through which posttraumatic growth is assumed to develop. For instance, some capacities emerge in middle and late childhood that are of potential relevance to posttraumatic growth, including the ability to understand the temporal elements of questions about change (Harter, 2006; Kilmer et al., 2009). Also in this period, children gain increased competence in managing trauma-related thoughts and regulating emotions, as well as greater use of emotion-focused coping strategies, and more cognitively-oriented coping strategies (see e.g., Baldwin, 2007; Compass et al., 2001; Salmon & Bryant, 2002). For posttraumatic growth to occur, the child must recognize and internalize some positive appraisals of the trauma and the subsequent changes that occur. Research has found that children's ability to acknowledge the simultaneous existence of positive and negative emotions or attributes related to a target event

emerges between nine and thirteen years of age, with some exhibiting the ability as young as seven years (Harter, 1986; Harter & Budding, 1987). This suggests that a lower age limit for posttraumatic growth may be around seven years of age (Kilmer, 2006), though one earlier study (Cryder et al., 2006) included children as young as six in their sample.

A final concern pertaining to the interpretation of the accounts in this study concerns the extent to which the theoretical constructs that are applied in the study accurately reflect the meaning of the participants accounts (papers I and II). This concern closely matches that of construct validity (Maxwell, 1992). It will always be discussable whether constructs applied to the qualitative data accurately reflect the issues or processes studied. The theoretical validity will largely depend on the theoretical framework within which the researcher defines his or her work. In the qualitative analyses I have primarily worked within the theoretical frameworks of narrative, trauma, and parenting theories. The theoretical abstractions applied to the material have primarily been derived from these frameworks. The use of other theoretical frameworks may have produced different interpretations, and different concepts could be used to describe identical phenomena. This is not necessarily a threat to the validity of the inferences though, as long as analytical consideration and the theoretical frameworks are clearly and comprehensively presented throughout the study.

5.2.4. Measurement of change in children

Posttraumatic growth is assumed to develop over time. Accordingly, what the optimal point in time is to measure growth is a highly relevant question which may have an implication for the usefulness of the construct. In the present study growth was assessed two and half years after the tsunami. Because this was the only measurement of growth taken, it is difficult to determine how and when these perceived changes emerged. It has been suggested that measures of growth administered soon after the event reflect a cognitive strategy that people use to reduce distress (Alvaro & McFarland, 2000), while growth measured some time after the event reflects actual change or posttraumatic growth (Halverson et al., 2006). In the present studies, it may be argued that the relatively long time that had passed since the traumatic event, in this case the tsunami experience, could be an advantage, as it increases the chances that the change observed in this sample was actually reflecting a true positive change. On the

other hand, it may be argued that with the time frame used, and particularly with young participants, it is difficult to determine whether the reported changes are actually due to the traumatic event in mention, or if they reflect general psychological maturation.

This may be even more difficult to determine with younger children, while introspection and self-reflection are still developing. In a study of children affected directly by Hurricane Katrina (Kilmer & Gil-Rivas, 2010; Kilmer et al., 2009), the assessments were at roughly twelve months and twenty-two months post-disaster. In that work – like the present one – the children's abilities to report about change over time was likely aided by the magnitude of the traumatic event, that is, the event may have served as a marker in time, clearly separating *before* and *after*. In that study, even the young children were able to reflect and consider how things were, for themselves and their lives, prior to the disaster and in its aftermath; they grasped the temporal element of the questions (Kilmer et al., 2009). Similarly, the present study examines children and adolescents who were all exposed to a very significant marker event; one could expect that they would be able to consider elements of their experiences and self-perceptions before and after the tsunami. Thus, research suggests that the nature of the tsunami event and the time frame used in the study, make it likely that these children and adolescents would report posttraumatic growth. This again supports the notion that there may be other circumstances that contribute to the explanation of the relatively low scores found in this study.

5.2.5. *Could the findings have a wider relevance outside this study?*

The question about transferability or generalizability of the findings primarily deals with two concerns: 1) could the findings be relevant to other individuals in the general population from which the present sample is drawn, and 2) could the findings apply to other individuals experiencing similar events. The present sample was a convenience sample, as is often (if not always) the case in disaster research. This means that the sample is comprised of individuals who were selected and contacted based on one shared characteristic; that they had experienced the tsunami. Due to the sampling procedure, findings from this study may not be readily applicable to all individuals in the general population of Norway. However, such generalization may not always be a goal. The knowledge obtained may be interesting exactly because the sample has some special characteristics. For example,

we may be able to demonstrate the power of a phenomenon even if it occurs under unusual circumstances. Thus, "*even if the findings cannot be directly generalized to other populations or situations, they can contribute to an understanding of the processes going on*" (Mook, 1991, p. 382).

Participants and documents for a qualitative study are selected because they can provide substantial contributions to filling out the structure and character of the experience under investigation rather than fulfilling the representative requirements of statistical inference (Polkinghorne, 2005). In fact, the special characteristics of the sample constitute a major strength, in that they allow for examining phenomena that are unique and thereby may contribute to shedding light on and explaining phenomena as they differ from similar phenomena in a different context. This is what is often called purposive sampling, and there are two primary aims of this kind of sampling: First, to make sure that one has adequately understood the variation in the phenomena of interest, and second, to test developing ideas about a phenomenon or setting by selecting the phenomena that are crucial to the validity of those ideas (Maxwell, 1992). In this sense, the samples analysed in the present project are considered to clearly fulfill the second purpose, as both the child and parent samples were selected due to their particular trauma experience, which was the main interest of this study.
In paper II, child participants were also selected to cover the variation in age, and thereby show the variation in the phenomenon of interest, i.e. narration, across age.

Furthermore, qualitative analyses of a purposive sample may achieve transferability or comparability through the contextualization and "thick descriptions" (Geertz, 1973) of the activities, interactions and processes examined. This is achieved by providing as much information as possible, both about the setting in which the study is performed, as well as about the persons who are studied, and in this way allowing for readers both to determine whether the findings make sense, as well as make informed conclusions about the relevance of the findings. In the present study efforts have been made to allow readers to gain insight into children's narrations and parents' concerns and activities by providing information about their cultural environment, their experiences, their characteristics and their own descriptions of the matter in question. Additionally, comprehensive descriptions of the research design and analytic procedures and considerations have been provided in order to allow readers to judge the probable validity of the findings.

With regard to the findings from the two papers applying statistical analyses, the problem of the low response rate (33.9%) is of particular concern (papers III and IV). Although not unusual in naturalistic research like the present project, such a low response rate requires a questioning of whether the sample is biased. A study of responders versus non-responders in the larger study of the Norwegian adults affected by the tsunami has shed light on three systematic differences between those who participated and those who declined to participate. First, those who declined participation had faced significantly lower levels of exposure to the disaster than had those who agreed to participate. Second, when controlling for exposure, those who declined to participate also had significantly lower levels of posttraumatic stress symptoms than those who participated. Hence, those who participated in the study had all had both higher levels of exposure to the disaster and higher symptom levels than those who had declined to participate. This suggests that the sample is slightly biased to the extent that the individuals in the present sample were more affected by the disaster than were those who declined to participate. The issues pertaining to other characteristics of the sample which may influence the applicability of findings to other groups of people have been extensively discussed in the papers, and elsewhere in this thesis.

5.3. Limitations and suggestions for future research

This study entails some limitations that must be taken into consideration when interpreting the findings. Some of the limitations have become explicit through the discussion above and in each of the papers, but some need to be highlighted.

First, two of the papers in this thesis employed the Posttraumatic Growth Inventory for Children-Revised version, a measure that has not been validated in the Norwegian samples (Papers III and IV). The translation of the measure was obtained by using standard back-translation procedures. However, several of the items in the PTGI concern issues that may entail slightly divergent interpretations across different cultures. Taku (2007) has elaborated on issues pertaining to the translation of this measure to Japanese, noting for example that some of the items may be interpreted in opposite ways by Japanese and American respondents. Although challenges akin to these were not

encounters in the translation process, related issues of cultural concerns may be reflected in the results in this study as well.

The present study includes a modest sample size and a modest response rate in the first phase of the study (33.9%). The primary problem with small sample sizes is the possibility that the effects of variables are underestimated, and hence the possibility of Type II errors is increased (true effects do not come out as significant).

Despite the longitudinal design of the larger project, posttraumatic growth was assessed at one occasion only, i.e. at T3 two and one half years after the disaster. Issues pertaining to the measurement of self-reported change and the timing of measurement have been extensively discussed above. However, it bears mentioning again that the design would have been strengthened by assessing/the assessment of posttraumatic growth at all three time points. Doing so would have yielded more information about how posttraumatic growth emerges and relates to PTSS over time.

Moreover, information about child health and the level of positively perceived aspects of life before the tsunami was not collected. It is therefore difficult to determine the exact degree of change that occurred post-disaster in this sample. Within the field of disaster research this is a common challenge, as the event occurs suddenly and unexpectedly, and thus this limitation must be viewed in light of the relative strengths such a naturalistic design also entails.

Due to the longitudinal design of the study, some of the independent variables were measured before posttraumatic growth was assessed, while some were measured concurrently. We did not have prospectively recorded data, that is, data collected before the disaster occurred. Caution about making strong causal inferences about the direction of effect between the variables is therefore warranted. To claim causality would demand an experimental design, or a randomly controlled design, neither of which are feasible in disaster studies or studies in similar naturalistic settings. However, the phenomenon of posttraumatic growth relies on the assumption of a causal relationship between trauma exposure and reports of posttraumatic growth. There is a clear temporal precedence in this relationship, in that the objective and subjective trauma exposure were measured at the first and second waves, respectively, while posttraumatic growth was measured at the third study wave, more than a year later. Thus, it is unlikely, not to say impossible, that reports of posttraumatic growth may

have influenced the reports of trauma exposure. However, as we do not have a prospective assessment of posttraumatic growth, it is difficult to determine whether the reports of growth had changed since the event.

The range of scores on the standardized measures constituting the variables in this study was relatively limited by the fact that the majority of participants reported low levels of posttraumatic growth as well as posttraumatic stress symptoms. A restricted range in scores influences the heterogeneity of the measures, and may therefore impact some of the statistical analyses negatively (Pedhazur & Schmelkin, 1991). Whenever measures have restricted range of scores, the correlations among the variables will be reduced. This may again increase the chances of Type II errors in that true relationships may not come out as significant. Thus, the effects in the study may have been underestimated.

The children's objective exposure to the tsunami was reported by their parents, while their subjective peri-traumatic reactions were obtained by self-report. Although these measures were positively related, it is possible that child-reported objective exposure may have come out differently in the regression analyses than was the case with the current parent-reported variable. For instance, in this study, the level of objective exposure did not predict the level of posttraumatic growth reported by the study youth, while the subjective reactions to the disaster did. Although these findings borrow support from previous research (e.g. Laufer & Solomon, 2006) and theoretical conceptualizations (e.g. Kilmer, 2006), the fact that these variables were reported by different respondents may have had an impact on the results.

One of the conclusions from this study was that child-reported posttraumatic growth solely relates to measures of negative adjustment, when measured two and one half years after the disaster. One limitation in this study is, however, that few adequate measures of positive adjustment were included. Thus, any firm conclusions on the basis that there is no relationship between posttraumatic growth and other measures of positive adjustment after trauma are unjustified.

Future studies should more specifically examine the validity of the PTGI-CR in different child populations. In order to be able to capture the full potential of children's reports, cultural modifications of the measure may be necessary. Hence, qualitative analyses specifically examining

reports of positive changes experienced in children and adolescents would be central in strengthening the validity of these kinds of changes. Such studies would shed additional light on whether and how positive changes unfold in the Norwegian culture and in younger children in general.

Because the findings in the present project suggest that distress-related factors enhance growth at the intra-individual level (i.e. subjective exposure and PTSS) and that the opposite may be true for inter-individual factors (i.e. parental posttraumatic growth and sick leave), additional research is required in order to clarify the nature of the relationships between these processes.

Due to the measurement problems concerning valid reports of change in children as well as the problem of distinguishing change due to trauma from change due to maturation, prospective longitudinal studies should be employed in order to further examine the degree to which posttraumatic growth relates to the course of PTSS over time. Such work might also expand the knowledge base by examining the impact of posttraumatic growth on other aspects of psychological and behavioural functioning, such as quality of life and the quality of one's social relationships.

Future research should develop a better system of indicators of functioning and well-being in order to better capture the full range of changes that could be associated with posttraumatic growth. Research so far has primarily focused on posttraumatic growth and its relation to negative functioning, like posttraumatic stress symptoms, depression and anxiety. Studies published thus far have used very few indicators of positive adjustment, i.e. how the person's life changed in a positive way– and how this change may relate to posttraumatic growth. The relationship between posttraumatic growth and indicators of children's and adolescents' adjustment (e.g. school-based competencies and behaviour or quality of peer relationships) should be more thoroughly examined in future studies because research on this issue has previously been limited and could have direct applicability in informing clinical intervention. Until such knowledge is produced, it may be premature to draw any firm conclusions about the utility of the posttraumatic growth concept as an indicator of positive adjustment or well-being.

6. IMPLICATIONS AND CONCLUSION

The findings in this thesis may have implications for our understanding of the processes through which children adapt and come to terms with their disaster experiences. Firstly, they are interesting in light of their contribution to trauma and posttraumatic growth theory. Secondly, they may have consequences for clinical practice.

Theoretically, the findings have three main implications. First, the study has demonstrated that secondary stressors following a disaster may be central to the development of posttraumatic growth. Previous research after large-scale disasters has not been able to disentangle the effects of the primary disaster-related stressors (i.e. the impact of the disaster itself) and the secondary adversities that typically accompany the disaster (e.g. loss of home, school, damaged infrastructure, constant reminders). The characteristics of this particular disaster and the situation of the sample examined in this project, allowed for the studying of the effect of disaster exposure itself without the confounding effect of secondary stressors. The direct trauma exposure that the children and adolescents in the present study were faced with was more intense and serious than what has been the case in previous studies. According to theoretical conceptualization of posttraumatic growth, one would expect that the amplitude of the disaster and severity of exposure would result in higher levels of posttraumatic growth. Despite this expectation, the levels of posttraumatic growth were lower than what was found in supposedly similar or less dramatic situations (e.g. Kilmer & Gil-Rivas, 2010). Having discussed the possible roles of other factors previously, the finding implies that the role of secondary stressors may be crucial in the development of posttraumatic growth.

Secondly, theoretical conceptualizations of the development of posttraumatic growth have postulated the importance of meaningful narratives and parental support in this process (e.g. Kilmer, 2006; Tedeschi & Calhoun, 1994; 2004). Yet, no previous research has gone to the lengths of examining and describing different aspects of this model both quantitatively and qualitatively within the same sample of people. Findings from the present papers have contributed to detailing some of the central elements the model conceptualizing posttraumatic growth (the role of trauma exposure, post-trauma distress, parental support and meaning making), and in this way contributed to expand the knowledge of the process.

The examination of children's experiences from a narrative developmental perspective extends knowledge about how children and adolescents construct meaning after a disaster. Finding a new, personal meaning may be central to the individual's coping with an adverse experience (Neimeyer, 2000). Knowledge about the ways in which the children and adolescents construct meaningful narratives, beginning from the early warnings and taking them safely through the high point, may hold implications for how children construct their stories in a way that helps them to cope with the unpredictability they experienced during the specific occurrence and in the world in general. Previous research on children's narratives and meaning making after stressful events has primarily examined elements and attributes of the narratives that are assumed to impact on the psychological well-being of children. By employing a narrative analysis, analyzing the narrative as a whole, the present study has contributed to detailing the process through which meaning is made.

The clinical implications of the findings are multiple. First, it is an already established truth that parents serve as important sources of support for their children in times of stress. The results from this study expand existing knowledge by suggesting that parents represent valuable resources for the assessment and interpretation of distress in a child, and providing coping support. This further suggests that efforts should be made to help and enable parents to continue their scaffolding efforts as long as possible, in other words "scaffolding the scaffold". In this way interventions may initially focus on supporting some parents' existing developmental supportive strategies when they are handling mild and expected symptoms in their children.

Findings from the childrens' and adolescents' narratives may have implications for how children and their parents are treated immediately after the disaster, and how their narratives can be used in the therapeutic processing of a traumatic experience. First, the findings imply that special attention should be given to child-caregiver relations in the psychological treatment of children and adolescents who have experienced disasters, when both the child and his or her caregivers are out of immediate danger. In a catastrophe situation, priority should be given to bringing parents and children back together as soon as possible, and one should avoid separations that are longer than necessary such as in situations where one party needs medical or other kinds of treatment immediately after a

disaster. Also in long-term psychological treatment, even when the traumatic event is long past, it may be important to identify and acknowledge the emotions related to the separation, as these may be easily overlooked, particularly in older adolescents.

Second, in a therapeutic context, it is important that the child or adolescent is helped to construct a coherent narrative that reflects his or her own emotional aspects of the experience. It is important to search for each individual's personal narrative, as it may be comprised of elements that are important to his or her meaning making. The findings have indicated that elements that are assumed to be central to making meaning of, and processing the experience, not always appear in the narrative that the children present to others. Although it is crucial to acknowledge the difference between a research interview and a therapeutic dialogue, the finding could imply that one should always ask particularly about the most distressing part of the experience, as this is not always volunteered in the narrative. The integration of the most emotional element is considered central to the adaptive functioning of narrating a traumatic experience (e.g. Neuner et al., 2008).

Furthermore, when children have experienced dramatic or distressing events, emphasis may be put on helping the child build a story that retains a sense of predictability, as this appeared to be an important issue in the tsunami-narratives in the present study. The finding and recommendation support existing theories on how traumatic experiences may be best processed through creating detailed and coherent personal narratives of the trauma.

Overall, the findings in this study contribute to a broadened understanding of the pathways for children's trauma recovery and how parents can contribute to their children's adaptation after disasters. This study is one of the very few to study the aftermath of a high-impact disaster in which the secondary stressors were relatively limited. This was also one of the first studies to examine narrative construction and meaning making in children after a disaster of such a magnitude. Thus, the perspective used and the design of the study constitute particular strengths and contribute to the novelty of the findings. The findings may hold implications for future research on children's and adolescents' adaptation after high-impact disasters, and awareness of the processes outlined in this

thesis may have clinical relevance for immediate and longer-term clinical work with children and their families after disasters.

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I

Parenting after a natural disaster:

The 2004 tsunami

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Running head: Parenting following the 2004 tsunami

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Abstract

How do parents support their children after a high-impact disaster? To answer this question, we conducted face-to-face interviews with 51 Norwegian parents, which revealed both their interpretations of their children's signs of distress, as well as their own strategies of support in the aftermath. These parents and children were all severely exposed to the trauma of the tsunami disaster. The qualitative analyses show how parents employ a substantial range of support strategies, including re-establishing a sense of safety, resuming normal roles and routines, and talking to their children. Parents' observations of their children in their everyday environments guided the parents' to understand that an established parenting repertoire may be adapted to the extraordinary circumstances of the tsunami.

Watchful waiting, careful monitoring of the children's reactions and the sensitive timing when providing support were the overriding strategies described by the parents in this sample. Such monitoring, as well as a subsequent interpretation of the observed signs, served as an aid for the parents in determining what needs their children had and what support they therefore needed to provide. Parents who were themselves severely impacted by the disaster reported a reduced ability to assess their children's' reactions and thereby were unable to provide optimal care in the aftermath.

Our findings suggest that early interventions should primarily focus on supporting parents' previously established parenting repertoires. Moreover, health care professionals should pay special attention to parents who express difficulties in providing care due to their own problems of coping with the disaster/trauma.

Key words: Parenting, Children and adolescents, Natural disaster, Watchful waiting

Previous theories and research suggest that children's post-disaster stress reactions are determined by multiple and complex processes. Most conceptual models include pre-existing conditions, characteristics of the stressor, and the child's post-disaster environment (La Greca, Silverman, Vernberg, & Prinstein, 1996; Pynoos, Steinberg, & Piacentini, 1999; Pynoos, Steinberg, & Wraith, 1995; Vernberg, La Greca, Silverman, & Prinstein, 1996). Out of these factors the role of the stressor has been the most highly examined. These studies suggest that the degree of actual threat in terms of children's proximity to the disaster, physical injury, and witnessed experiences is proportional to their risk of developing Posttraumatic Stress Disorder (PTSD) (Hardin, Weinrich, Weinrich, Hardin, & Garrison, 1994; Pynoos et al., 1993). In addition, several studies have found children's immediate subjective responses to the event to be predictive of later reactions (Giannopoulou et al., 2006; Goenjian et al., 2001 Jensen, Dyb, & Nygaard, 2009). The study of pre-trauma conditions has been primarily focused on characteristics of the child such as age and gender, rendering inconclusive results (Fletcher, 2003). Although several researchers have emphasized the role that the post-disaster environment may play in the development of post-trauma symptoms, this subject has been far less studied (Jensen, Dyb, & Nygaard, 2009; La Greca, Silverman, Vernberg, & Prinstein, 1996; Pynoos, Steinberg, & Wraith, 1995).

This article will examine one aspect of children's post-trauma recovery environment, namely parent's efforts to aid their children to cope with severe trauma. The child trauma field has had a main focus on identifying markers of risk. Markers of risk typically include preexisting conditions, demographic characteristics, etc. Although these aspects are significant, it is important to distinguish between passive risk markers and active operating processes that can contribute to the maintenance of post-trauma responses. Passive risk markers include little intrinsic information concerning what processes contribute to alleviating

or aggravating the development of posttraumatic stress (Layne et al., 2006). The present study's focus on naturally occurring processes of parenting serves to bridge these bases of knowledge.

One aspect of the child's post-trauma environment that has been examined is the relationship between parent's post-trauma symptoms and those of the child. In a meta-analysis of 17 studies Scheeringa and Zeanah (2001), found a strong positive association between parental and child PTSD, a finding that has been replicated several times (Dyb, Jensen & Nygaard, in press; Kilic, Özgüven & Sayil, 2003; Wickrama & Kaspar, 2007). While parents' stress reactions may increase the risk of distress in their children, a supportive family environment, on the other hand, may contribute to a better adjustment in children. The buffering effect that parental support and positive family functioning have on children's reactions to trauma has also received empirical support (e.g. Gil-Rivas, Holman & Silver, 2004; Kronenberg et al., 2010; La Greca, Silverman, Vernberg, & Prinstein, 1996). Thus it is suggested in the literature that one of the mediating pathways by which disasters can harm children is via their effects on parents and the quality of parenting (Masten & Osofsky, 2010).

There may be many ways in which parenting practices can be affected after a disaster. As mentioned, parents own exposure and reactions to trauma may affect their parenting behaviors, and subsequently may impair the quality of care and support they provide (Aisenberg & Ell, 2005). However, parents vary in their abilities to provide children with sensitive and supportive parenting, whether they themselves have been directly exposed to trauma or not (Cohen, 2008). Children's reactions after traumatic incidents may differ from the familiar behavioral displays, and this change may lead to uncertainty regarding how their children can be helped. Cohen (2006) noted that children's unfamiliar reactions, as well as

parents' fears of causing harm to the children by inappropriately reacting to their behavior, may influence the parents' capacities to provide the appropriate care.

Parents can assist their children in coping with their experiences after a disaster in numerous ways. They may facilitate their children's adjustment by providing them with suggestions for how to cope with what happened (Gil-Rivas, Silver, Holman, McIntosh, & Poulin, 2007; Prinstein, La Greca,Vernberg, & Silverman,1996), and by listening to their fears and concerns (Gil-Rivas et al., 2007). The amount and type of coping advice parents provide for their children may depend on the severity of their children's symptoms (Phillips, Prince, & Schiebelhut, 2004), which suggests that parents may help their children by being sensitive to their specific needs following their exposure to trauma. Parents' views on what constitutes good parenting practices may also change after exposure to a traumatic event. A study of parents living close to ground zero in New York following the 2001 terrorist attacks demonstrated that parents had changed perspectives as to what they perceived as important in their roles as parents. They became more focused on bonding with their children, as well as loving, protecting, and providing for them (Mowder, Guttman, Rubinson, & Sossin, 2006).

Despite an abundance of literature claiming that parental responsiveness is important in post-trauma coping in children, few studies have actually focused on parenting practices in the aftermath of trauma. Given the hypothesized role of these relationships in post trauma functioning, and an increasing body of research on the impact of traumatic events on children, the lack of studies is surprising. Hence, the focus of the present study is to fill in gaps in the literature by addressing the nature of post-trauma parenting: How do parents understand the needs of their children and what do they do to help their children cope in the aftermath of trauma? The answers to these questions are important. First of all, insight into these processes may enhance our understanding of how to assist parents in helping to facilitate their

children's recovery after exposure to disasters. Secondly, the answers can help us to develop models for early intervention. We cannot prevent disasters from happening, but understanding more of what we can do to prevent the development of severe post-trauma reactions is of great importance. Increasing our knowledge of children's post-trauma functioning through the study of children's naturally existing coping resources is a perspective that has been long-awaited to be studied (Layne et al., 2006).

Method

Participants

This study reports on interview data collected during the second phase of a longitudinal study of Norwegian families exposed to the 2004 tsunami in Southeast Asia. All parents and children in the study had been in the disaster-affected areas and thus were all directly exposed to the disaster. However, they were all able to leave the disaster area within a couple of days, and therefore, the secondary adversities normally experienced by survivors of disasters such as loss of homes, schools and employment, was not part of these families' post-disaster environments.

The adults were initially identified through police lists of survivors who arrived at the Norwegian national airport following the disaster. These adults were asked to complete a survey six months after the disaster, and parents who were travelling with their children were then asked to participate in the subsequent interview study a few months later. Of the 210 eligible parents, 89 parents with children ages 6–18 years agreed to participate in the interview study. Since the objective was to investigate parenting after children are exposed to traumatic incidents, high levels of exposure were a selection criterion for this sample. Parents

reported on an eight-item scale of potentially traumatizing events that the children may have experienced during the tsunami. Four items were agreed upon as constituting particularly high degrees of exposure or distress, i.e. *physical danger caused by the wave, being caught by the wave, bodily injuries, or being separated from caregiver during the disaster*. Parents who reported that their children had experienced one or more of these tsunami-related events were included in the sample. This resulted in a final sample consisting of 51 parents (40 mothers and 11 fathers), ages 33–53 years (M = 43.1, SD = 5.2). One parent from each family was interviewed. Sixty-nine percent (as compared to 25.9% in the general population) of the parents had earned degrees from a college or university (Statistics Norway, June 30, 2009). Eighty-one percent of the parent participants were married or co-habitating. The parents travelled with a total of 80 children ages 6–18 years (M = 12.2, SD = 3.5), for whom they provided daily care in the aftermath of the disaster. The children were equally represented by gender (40 girls, 40 boys), and the ages were as follows: 6–9 years (26.5%, n = 21), 10–12 years (18.75%, n = 15), 13–15 years (35%, n = 28), and 16–18 years (20%, n = 16). Despite the fact that these children were highly exposed to the disaster only two children had scores equivalent to PTSD at 10 months. There was a significant decrease in symptoms after 2 ½ years, and no children had scores that exceeded clinical cut-off at this time. This indicated that the children's post-trauma recovery environment was favorable. (See Jensen, Dyb, & Nygaard, 2009, for a discussion of these results).

Procedure

The study was approved by the National Committee for Research Ethics in the Social Sciences and in the Humanities in Norway. The parents were asked to sign a consent form prior to participation, and informed that they could withdraw from the study at any time.

Face-to-face interviews with the parents were conducted approximately 10 months after the tsunami, in the participants' homes, by experienced psychologists and psychiatrists, who had received training in the use of the interview protocol. The training entailed a particular focus on techniques for facilitating the telling of trauma narratives without leading or interfering in the story. In addition critical aspects related to interviewing potentially traumatized individuals were emphasized during the training. Audio-taped interviews were transcribed verbatim, including minimal phrases, pauses and emotional expressions.

Interviews

The interviews were semi-structured. To capture the specific experiences of the families, the parents were asked to provide a trauma narrative describing their experiences during the tsunami. All participants were presented with the following introduction: "I know that you and your family were in Thailand at Christmas. While you were there something happened. Please tell me about that." Emphasis was put on having the participants narrate as freely as possible. However, a number of prompts were also provided in order to help the participants elaborate on events that seemed significant in the narrative. Subsequently, the following open-ended questions were asked: 1) "How would you describe your child's (children's) reactions after the disaster?", 2) "What did you think your child(ren) needed during the time following the disaster?", and 3) "How did you adapt to your child's (children's) needs?".

Analyses

The analysis was guided by the Consensual Qualitative Research framework (Hill, Thompson, & Williams, 1997). This method emphasizes cooperation between researchers in order to strengthen the credibility of the analyses, ensure multiple perspectives, and reduce subjective bias. Following this protocol, first all interviews were read and reread by the

researchers to establish domains, which are topics used to cluster or group the data. Two domains were established; the parental process of interpretation and parent's support strategies. The parental process of interpretation refers to how the parents go about identifying and interpreting signs of distress in their children. Parenting support strategies refers to what the parents do to aid their child in the recovery process. The interviews were then reread and blocks of data were assigned to the domains. In the next step of the analysis core ideas were established within each domain and each individual case. Through this process we sought to capture the main essence of what each parent had expressed within the theme of each domain. The core ideas reflected the parent's perspective and meaning with minimal interpretation. In the third and last step in the analysis we created categories across cases. The categories were based on the core ideas through cross analysis, where the core ideas that could be grouped together were transformed into broader categories. This step brought the analysis to a higher abstraction level, with a search for similarities and differences across cases. These are the presented results. If any coding diverged throughout this process, the codes were discussed with reference to the text excerpts until a consensus could be reached.

Results

The parents in this study provided long and rich descriptions in response to the question about how they perceived their children's needs and how they proceeded to provide support. Two main themes emerged from the analyses which described their efforts to observe and interpret possible signs of discomfort in their children. These were a) a heightened awareness that children could display negative reactions, and, b) their efforts to interpret children's behavioural changes. The second part of the analyses, where we examined parental strategies to provide support, revealed two main categories: preventing symptoms and reducing

symptoms, which again were comprised of three subcategories, namely reestablishing safety, resuming normal routines, and coping assistance. The findings are presented in further detail below and illustrated with quotes from the interviews.

Parental process of interpretation

Heightened awareness: Looking for signs. A general tendency in this sample was, with very few exceptions, that parents told about a heightened awareness that their children could display negative reactions due to their experiences. That is, the vast majority of the parents voluntarily reported an increased tendency to follow and observe their children, looking for signs indicating that they were upset. The mother of a 13-year-old boy who nearly drowned in the tsunami said: "I was extremely aware that he could react in some way. I kept a close eye on him, and asked him every now and then whether he was feeling ok."

In trying to manage the balance between not inducing distressing emotions on the one hand, and not doing enough to support their children on the other, these parents monitored their children closely and waited to see what would happen. One father said about his 11-year-old son:

I didn't want to nag him the first few weeks.… I just tried to observe him, make sure he wasn't just sitting there being depressed … and I made sure he was still going out with his friends and that kind of thing. I guess I was just observing him for a while, maybe for a month or so after returning home.

Yet another father focused on following his 15-year-old daughter's own pace of adjustment: "We let her handle it in her own way … so we kept an eye on her just to make sure she was coping alright." In this way the parents observed their children and monitored the progression

of reactions or symptoms. Their hesitation to intervene should not be confused with a reluctance to provide support or the idea that certain reactions would cease more easily if they are not brought up or mentioned; rather, it seems to represent the idea that the children's emotional reactions to a stressful event will eventually cease if care is given in the usual way.

Interpreting signs of discomfort. When parents observed and paid attention to some specific reactions from their child, they then had to interpret the meaning of these reactions and try to understand the underlying cause. Through this process of interpretation, they made assessments both according to the existing cultural norms and expectations of child behaviour after disasters, and according to their own knowledge about their child's personal characteristics and developmental progress. For instance one mother focused on her children's different reactions, and understood this discrepancy as being a function of age:

> *So, I have actually realized that there are some important differences in an eight-year-old and a ten-year-old when it comes to simply realizing the consequences of what happened. John seems to have grasped the gravity of such an event. Roger doesn't seem to have grasped that at all.*

In these interpretations the child's age is referred to as an explanation for their differing behaviour. Another common attribution was based on the children's personal characteristics as explained by this mother:

> *I think our 16-year-old has more vivid fantasy than his older brother, and I think he has been dreaming more as well. He tends to create a little drama because he is quite a dramatic person. The other one doesn't make much fuss about it.*

Thus, this boy's dramatic reactions were considered normal, and did not warrant concern. Attributing his reactions to his dramatic nature seemed to function as an aid for the parents understanding of their child's behavior. These ways of interpreting behavioural signs helped the parents to inquire into what caused them, and helped them understand the extent to which a particular behavior ought to cause concern and subsequently require more intervention on their part.

Within this frame of cultural and personal attributions two categories of behavioral signs emerged and were labeled: *analogue signs* and *contingent signs*. Analogue signs were comprised of reactions or behavioural changes that were attributed to the disaster because of their thematic resemblance to the tsunami-related exposure. Such reactions were activated by reminders of trauma, or they bore a clear resemblance to what the child had experienced during the disaster or in its immediate aftermath. Typical reactions that parents had observed in their children were being afraid of water or having nightmares where the content was closely related to experiences of death or fear of losing parents or siblings. One father said: "She dreams about death. And she has these compulsive thoughts about funerals. Her thoughts circle around death and funerals." His daughter, who was eight at the time of the tsunami, was evacuated during the disaster and was accidentally taken into a church where the bodies of deceased children were being kept

Contingent signs referred to reactions that were more general, and the interpretation of such behavioural signs relied more on situational cues. The contingent signs included diverse behaviours, mood states or symptoms indicating that things were awry, but where the connection to the traumatic incident is more unclear. When the parents had attributed these signs to the tsunami it was because they occurred shortly afterward. The most frequently mentioned contingent signs were sleep difficulties, moodiness, irritability, separation anxiety,

and social withdrawal. Despite the nonspecific nature of these reactions, parents generally tended to relate these to the disaster, mostly because of their temporal closeness/proximity to the tsunami. Both the analogue and contingent signs were thus interpreted as being post-trauma reactions and were viewed as normal and understandable.

Taken together the findings suggest that a vast majority of the parents could give nuanced and detailed descriptions of their interpretational efforts. Attributing the child's reactions to understandable post-trauma reactions and therefore as something to be expected, reduced the alarming impact of the observed signs. Because these reactions made sense, they thereby had the potential to reduce parents' worry and concern. The findings also suggest that the parents adjusted their expectations and practices according to several factors, and thus exhibited flexible expectations of their children's behaviours.

Parental Support Strategies

The parents mentioned a range of actions taken with the intention to support their children's post-trauma coping. In general, these made up three main categories. The first two, re-establishing safety and resuming normal routines, represent parental efforts to adjust and prevent distress and the development of symptoms in their children, while the third, coping assistance, describes how the parents in different ways made active efforts to help children cope with symptoms. The parents often reported more than one supportive strategy, and some of them described using all the different types of support. Below follows a description of the support strategies.

Re-establishing a sense of safety. Twenty-nine of the parents said that they put an extra effort into making their children feel safe and secure after returning home. This involved

spending more time with their children, not leaving them home alone, and generally creating a family atmosphere in which their children could feel safe. A frequently mentioned change in routines was a reduction of their own workload and working hours, or a shift in their work schedule in order to be able to stay home with their children. Many parents also spent less time engaging in their own leisure activities for a certain period in order to be able to spend more time at home. They put a considerable amount of focus on being available if their children needed someone to talk to:

> *We spent a lot of time together…and made sure that one adult was always home in the morning. And that there was at least one of us at home in the afternoon … that kind of things. So, we had, like, a careful transition, in order to get back to normal life.*

The mother of two teenage girls said: "We all slept in the same bed for at least a week after returning home. And then, after a few days, we rearranged this and let the girls share a bedroom. I actually think this was very important at that point."

Parents also put considerable effort into protecting their children from stimuli that could induce distress. Many parents tried to hide their negative emotions in the presence of their children. They also tried to protect their children from people continually asking about the disaster, as they thought this type of exposure could serve as a trauma reminder. Even though parents emphasized the importance of protecting their children, some of them retrospectively expressed concern that they might have been overprotective.

Resume normal roles and routines. Thirty-five of the parents provided statements that in various ways reflected efforts to follow daily routines (having dinner as usual, doing homework, etc.) and getting back to normal family life as soon as possible. In particular,

parents focused on re-gaining normal family functioning and helping their children continue with their normal activities. One family provided increased support for a period of time, in order to let their children, aged nine and eleven, focus on their daily routines and activities:

> *We put a high priority on helping the kids with their homework. They needed a little extra at home.... It was nice being able to provide a little extra help, and in that way enable them to go on with their other routines and activities as usual.*

Hardly any of the parents in this sample expressed a concern that the special adjustments made in the aftermath of the tsunami would imply a permanent change in routines. They seemed to accept that certain routines could not be followed as strictly as they would be under normal circumstances.

Coping assistance. Thirty-nine of the parents also tried to help their children cope with the trauma by engaging in supportive actions toward them. Such action was often initiated when the parents noticed specific psychological reactions in their children. There was a wide variety in the strategies parents used to facilitate their children's recovery. For instance, some children developed a fear of water after the tsunami, and many of the parents said they had taken their children to the swimming pool in order to help them overcome this fear. Other children struggled with nightmares and had difficulties falling asleep at night. In these cases, parents adopted different routines in an attempt to enhance their children's sleep.

The importance of dialogues and supportive talk was mentioned by more than half of the parents in this sample, in particular talking to their children about what had happened. The parents mentioned that helping their children talk about their experiences and feelings was

one of most important strategies they employed to help their children cope. In most of the cases, parents themselves found opportunities to facilitate conversations about the event, either by initiating such dialogues or by encouraging the child to ask or tell when he or she felt like discussing it. One mother emphasized the importance of retelling the trauma narrative, and gave her seven-year-old daughter a task that was intended to help.

> *After returning home I gave her the task of retelling her story three times every day, and one of the times she was supposed to tell the story to a new person…. We had a lot of people coming by to see us…. And after 12 days she said, "Mommy, I'm finished telling the story now".*

Some parents also adopted a psycho-educative approach to talking, in this way teaching their children about normal psychological reactions after a traumatic experience and how to cope with distressing thoughts. One mother said:

> *So I have talked to them and told them that, that if they feel bad or scared or whatever, it may not always be so easy to know why they feel that way, but it could…I mean, it could of course have to do with what they experienced down there. And then I have explained them a little about "flash-backs" and that kind of things…and that it is normal to have these reactions.*

A few parents also emphasized the positive aspects of the situation with their children. Typical themes were talking about positive memories of the vacation before the disaster occurred, and suggesting that they had been lucky to survive the disaster and been given a

new chance in life. Such reframing might serve to foster positive thinking in a family setting. Furthermore, parents tried to explain to their children that the world is still mostly safe despite the fact that disasters do happen. Hence, supportive talk seemed to serve the function of communicating about and addressing confusion, fears and anxieties, helping the children process the traumatic event, and correct misconceptions.

However, a small subsample (6) expressed concerns about their ability to provide adequate care. Their capacity to assess their child's reactions seemed to be closely connected with their own well-being. The few parents who stressed about this issue had themselves been severely affected by the disaster, loss, serious physical injury, or severe posttraumatic reactions after returning home. Thus, the impact of secondary stressors may have been of particular importance for these families. In spite of this the parents could explain how they tried to compensate for their own shortcomings by involving their social network in the child's post-trauma environment. For instance, one of the fathers who expressed a concern that he had not sufficiently tended to his ten- year-old daughter's problems, had been dealing with a long process of grief after the loss of close family members. In the interview, he emphasized that he had taken compensatory precautions by bringing other key persons (e.g., relatives) into the household.

> *So, I have used others as support … so that Siri could also be able to use others, and not just me. Just to ensure she got what she needed. Because I have not been able to give her 100% of my attention. But I made sure that others could give her what I couldn't. Made sure there was always someone there for her..*

This suggests that their increased psychological vulnerability made parts of their parenting more difficult than they would have been the case in a normal situation.

Discussion

Although the importance of supportive parenting is acknowledged in the field no studies have actually asked parents what they do in order to support their children. This paper has addressed this important gap in the literature by focusing on the naturally occurring parenting practices as they are perceived by the parents themselves. We thereby shift the focus of attention from the passive markers of risk that have been typically studied in the trauma literature to a focus on the process of recovery and how parents try to assist in providing an optimal post-trauma recovery environment. There are two results in particular we wish to draw attention to. The first is related to the parental process of interpretation and the second is related to parents' actual coping assistance.

The findings highlight the ways in which the parents' sensitivity to their children's levels of post-traumatic stress enables them to adjust their parenting strategies to encompass their child's needs and thus contribute to a favorable post-trauma recovery environment. The parents' support strategies are closely connected to interpretations of child behavior and situational characteristics after a traumatic event. When considering how parents perceived and interpreted the post-trauma behavior of their children, it is essential to take into account what kind of trauma they were exposed to. Totally unprepared, these families found themselves in a life threatening situation in a foreign country. This experience was, however dangerous and painful, shared among the surviving members in the family. The fact that this was an experience shared by family members seems to have been an important prerequisite allowing the parents to create a nuanced and well grounded understanding of their children's

needs. Having access to and knowledge about the children's actual experiences may have facilitated the parents' capability to make probable associations between observations and attribution, and thereby contribute to their understanding of their children's needs. Other studies have found that when parents are unaware of the trauma their children were exposed to, the process of interpretation becomes much more difficult. Parents then make use of a wide repertoire of possible interpretations, where more culturally accepted interpretations are preferred (Jensen, 2005). The consequence in such instances is that the parents' efforts to help their child to cope with the trauma may fail.

The second finding we wish to underline is related to the parents' attempts to help their children to cope. The parents emphasized re-establishing a sense of safety and emotional support, and sought a return to normality as soon as possible, including resuming their usual roles and routines. Reluctant to interfere with their children's own ways of coping, the parents adjusted their support to let the children use their own strategies as much as possible. This parental strategy may be referred to as "scaffolding", or, raising a metaphorical scaffold around the children in order to support their development (Wood, Bruner, & Ross, 1976). Inspired by Vygotsky's descriptions of the "zone of proximal development," scaffolding has been described as an interactional process by which parents adjust or modify the amount and type of support they offer to the child that is best suited to his or her level of development.

These parents' ways of providing care after the tsunami mirrors parenting practices that in previous studies have been associated with better outcomes in children (e.g. Prinstein et al., 1996; Punamäki, Quota, & El Sarraj, 1997) as well as findings on how parents' focus on parenting has changed after their children's trauma exposure (Mowder et al., 2006). These studies have documented that warm, supportive and loving parenting is associated with better outcomes after disasters. Moreover the way parents observed and monitored their children's

actions and reactions, along with their focus on being available and supportive could be referred to as “watchful waiting”. This concept refers to a way of monitoring the progression of potential reactions over a period, in order to determine whether the child needs extra care or treatment. This way of “keeping an eye” on their child while at the same time providing a feeling of safety are quite intuitive strategies that they had not necessarily learned.

Interestingly, this way of caring, closely resembles the care strategies outlined in recently developed recommendation for early interventions after terror and disasters (Brymer et al., 2006: National Child Traumatic Stress Network (NCTSN) and National Center for PTSD (NCPTSD)). In this protocol the focus is on promoting a sense of safety; calming procedures; promoting a sense of self efficacy and connectedness; and lastly promoting hope (Hobfoll et al., 2009). This striking similarity between the recommended care, and what parents described doing in order to best help their children to cope following the tsunami, could be interpreted in at least two ways. First, given the character of this particular event, as outlined above, it may have left the parents in the present sample particularly fit and suited to care for their children in the best possible way. That is, the shared experience and their safe surrounding upon returning home may have expanded their ability to provide the warm and sensitive support that has been associated with positive child adjustment in several studies (e.g. Valentino et al., 2010). It is worth noticing that these children reported fewer symptoms of PTSD compared to children in other disaster studies (Jensen, Dyb, & Nygaard, 2009). However, whether low levels of symptoms in the children eased the parenting, or whether the support from the parents reduced the level of symptoms in these children could not be determined within the frames of this paper. Second, it might be that these findings simply reflect basic parenting strategies that may apply to more extreme situations as well. The latter interpretation lends support has support from Haavind (1987) who developed a conceptual

model of parenting under normal conditions, describing interpretational processes resembling those discovered in the parents reports in this sample.

Some limitations need mentioning. First, the analyses were exclusively based on interviews with parents, and the children's perspectives are not represented. Interviews with the children may have added important perspectives on the quality of care, particularly the extent to which they perceived that the care provided and attention given was appropriate and sufficient. Also, examining how these parenting practices relate to children's post-trauma adjustment and well-being could have added useful information, but was beyond the scope of this article. Yet, as previously noted, these children had, despite their trauma exposure, low levels of posttraumatic stress symptoms. Moreover, we only have information from one parent in each family, most of whom were mothers. Interviewing both parents may have provided us with a richer understanding of how discrepancies between parenting practices within families, as well as spousal support might influence post-trauma caretaking. It also bears mentioning that, on average, the families in this sample were privileged with regard to socioeconomic status and education. This may also have assisted the families in re-establishing a safe and secure everyday life more than what might have been the case in other samples.

The aim of this study was to understand more of the pathways for children's trauma recovery and how parents can contribute to the recovery. Models of post traumatic stress emphasize pre-, peri- and post-trauma conditions as important contributors to our understanding of the development and maintenance of post-traumatic stress reactions. Although these processes are highly complex and intertwined, this study contributes to the field by highlighting one certain aspect of children's post-trauma environment. By studying how parents naturally adjust their parenting skills to encompass new challenges that emerge

after serious traumas we may be able to understand why many children actually do cope well despite experiencing high impact traumatic incidents. According to a review of the literature, approximately 70 % of the children who experience serious trauma cope well after a short period of time (Fletcher, 2003).

In the literature much emphasis has been put on understanding passive markers of risk in the development of post-trauma reactions (Layne et. al, 2006). This study contributes to the field by studying ongoing processes of parenting as they naturally occur after a serious disaster. The results highlight the importance parents can serve in creating a post-trauma environment aimed at alleviating post-trauma reactions in their children. Inferences must however be made with caution. This study's design does not allow us to conclude that the parent's post-trauma parenting practices actually contributed to less post-trauma stress in their children even though such a connection may seem warranted. In any case, the parents themselves make this connection and their strategies had this specific aim. The strength in this study rests first of all in its design. The in-depth and open interviews allowed the parents to elaborate and reflect on their efforts to help their children to cope. The large number of interviews allowed us to discover patterns of post-trauma parenting. In the analysis we were struck not so much by the differences in parenting practices, but by the similarities.

The results lend support to the already established guidelines for early intervention and, at the same time, pave the way for a more careful and individualized monitoring of the clinical work that is conducted with children after trauma. First, the parents' awareness and ability to make use of their usual parenting practices represent valuable resources for assessing and interpreting distress in a child. Early intervention may initially focus on supporting some parents' existing developmental supportive strategies when handling mild and expected symptoms in their children. Second, being able to understand and support one's

children seems to be connected to the extent to which the parent has been impaired by the trauma. Hence, severely traumatized parents may need extra support to give optimal care to their children. This could include psychological help for their own distress, or temporary support outside of the family in order to optimize their child's post trauma recovery environment.

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II

III

Posttraumatic Growth and Posttraumatic Stress among Norwegian Children and Adolescents Exposed to the 2004 Tsunami

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Running head: Posttraumatic growth and PTSS in Norwegian children and youth

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Abstract

This study examined posttraumatic growth (PTG), positive change experienced as a result of the struggle with trauma, in children and adolescents exposed to a high-impact disaster, after which their experience of secondary adversity was minimal. The study also examined whether reduction in posttraumatic stress symptoms (PTSS) over time related to reports of PTG. Participants included 105 6- to 17-year-olds who were directly exposed to the 2004 tsunami in Southeast Asia. They were interviewed 10 and 30 months after the disaster – PTSS was assessed at both time points, and PTG was assessed at 30 months. The individual's subjective reactions to the event and concurrent PTSS (30 months post-tsunami) were independently and positively related to PTG, while the decrease in PTSS was not related to growth. Children and youth in this study reported lower absolute levels of PTG than those in other studies. Taken in sum, findings suggest that secondary adversities may influence posttraumatic reactions and ongoing distress, which are hypothesized to play a key role in the development of PTG. In the absence of such secondary stressors, continued distress in the form of PTSS may serve to catalyze the growth process. Implications for clinical practice are discussed.

Keywords: Posttraumatic growth, Disaster, Children and Adolescents

This study examined post-disaster adaptation and posttraumatic growth among Norwegian children and adolescents who had been directly exposed to the tsunami that hit the coastlines of Southeast Asia in December, 2004. Exposure to high-impact disasters can profoundly alter children's view of the world as safe and predictable, as well as their coping in the aftermath (e.g., Goldman, 2002; Lieberman & Van Horn, 2004). The detrimental effects of exposure to natural disasters have been examined in a range of studies involving children and adolescents experiencing hurricanes (e.g., La Greca, Silverman, Vernberg, & Prinstein, 1996; Scheeringa & Zeanah, 2008), earthquakes (e.g., Bödvarsdóttir, Elklit, & Gudmundsdottir, 2006; Proctor et al., 2007), wild fires (e.g., Jones, Ribbe, Cunningham, Weddle, & Langley, 2002), and tsunamis (John, Russel, & Russel, 2007; Neuner, Schauer, Catani, Ruf, & Elbert, 2006; Piyasil et al., 2007; Thienkrua et al., 2006; Vijayakumar, Kannan, & Daniel, 2006). These studies indicate that natural disasters can have short- and long-term psychological consequences; the sequelae most commonly documented include posttraumatic stress symptoms (PTSS) and Posttraumatic Stress Disorder (PTSD), other anxiety-mediated difficulties, and depressive symptoms (see, e.g., Silverman & La Greca, 2002).

The developing research base on youth and disasters also suggests that the post-disaster environment may play a key role in youths' adaptation. For instance, qualities of a child's post-disaster context may serve to sustain distress symptoms, or, as the youth struggles in the aftermath of the trauma, facilitate a constructive cognitive reprocessing of the experience (see Watkins, 2008). For instance, the secondary stressors that children and their families may experience after a disaster, such as loss of home or property or ongoing struggles to meet basic needs or access services, may play an important role in maintaining PTSS (Giannopoulou et al., 2006). However, it is difficult to disentangle the effects of exposure to the traumatic event itself and the impact of secondary adversities on individuals.

Recent research suggests that experiencing life-threatening adversities may not only result in distress or symptomatology. For some individuals, the processing of a traumatic experience also seems to result in positive psychological changes or personal growth. Tedeschi and Calhoun (1995) coined the term *posttraumatic growth* (PTG) to describe individuals' reports of lasting positive change following an unusually stressful event. They suggested that major trauma can shake, shatter, or distort the individual's assumptions about the world, which may lead the individual to engage in efforts to cope, adapt to his or her new reality, and work to understand what has happened (Tedeschi & Calhoun, 2004). It bears particular mention that the individual's appraisal of an event and subjective response (i.e., experienced fear in the situation) are hypothesized to be even more important for PTG than objective trauma exposure (Kilmer, 2006; Tedeschi & Calhoun, 2004). Research supports that notion: in their review, Linley and Joseph (2004) found that greater levels of perceived threat and harm were associated with higher levels of growth in adults, and similar effects have been found in children (see, e.g., Laufer & Solomon, 2006; Kilmer et al., 2009).

In light of the present paper's emphases, it is important to note selected core elements of the hypothesized PTG process. PTG theory and research suggest that subjective factors such as ongoing distress (manifested as, for example, intrusive ruminative thoughts or PTSS) and, subsequently, the individual's efforts to reconcile his or her new reality, serve as prime catalysts for the growth process by facilitating a constructive cognitive reprocessing of the trauma, often referred to as deliberate, or productive, rumination (Tedeschi & Calhoun, 2004; Tedeschi, Calhoun, & Cann, 2007). Through this cognitive reprocessing, one may try to make sense of what has happened and integrate the events within the working models of one's world – this process is thought to contribute to changed perspectives on self, others, and one's new life and way of living (Calhoun & Tedeschi, 2006). The degree to which the PTG process in children and adolescents is consistent with that conceptualized in existing adult

models (e.g., Tedeschi & Calhoun, 2004; Calhoun & Tedeschi, 2006) is as yet unclear (Cryder et al., 2006).

Most PTG research has focused on adults, but the potential for perceived positive change in children and adolescents exposed to trauma has gained increasing interest. However, the hypothesized cognitive and affective elements of the PTG process have made some authors raise questions about children's capacity for PTG (Cryder, Kilmer, Tedeschi, & Calhoun, 2006; Milam, Ritt-Olson, & Unger, 2004). For example, to incorporate positive elements of the traumatic experience into one's world view, it is necessary for the youth to have the capacity to recognize both gains and losses (Cryder et al., 2006; Kilmer, 2006). More broadly, children's cognitive and emotional development may influence their appraisal and understanding of the event and their reactions to trauma (see, e.g., Hasan & Power, 2004; Shahinfar & Fox, 1997). The attributions children make concerning their experiences, their repertoire of coping skills and approaches, and their capacity to attend to and report on internal states may also vary across ages (Salmon & Bryant, 2002). Given the differences between youth and adults in cognitive sophistication and both self- and affective awareness, it is necessary to further explore PTG in children and adolescents.

While early in its development, the extant literature provides evidence to support the PTG phenomenon in youths. Specifically, studies have documented the experience of growth in children and adolescents following adversities such as life threatening illness (e.g., Barakat, Alderfer, & Kazak, 2006), natural disaster (Cryder et al., 2006; Kilmer & Gil-Rivas, in press), terror incidents (e.g., Laufer & Solomon, 2006; Milam, Ritt-Olson, Tan, Unger, & Nezami, 2005), traffic accidents (Salter & Stallard, 2004), and a range of other potential traumas (Alisic et al., 2008; Ickovics et al., 2006; Milam et al., 2004). These findings suggest that PTG may indeed occur, at least to some extent, in children and adolescents. Notably, however, few studies have focused on or included young children, and prior studies have

been inconclusive with regard to age differences in PTG. Whereas Milam et al. (2004) found a positive association between PTG and age among adolescents, other researchers have failed to detect an age-growth relationship (e.g., Kilmer et al., 2009; Laufer & Solomon, 2006), even in samples with a substantial age range of youth (Cryder et al., 2006).

Existing evidence suggests that many individuals reporting PTG also report problems in adjustment and emotional distress related to the traumatic event (e.g., Calhoun & Tedeschi, 2006; Salter & Stallard, 2004). This suggests that negative and positive consequences of trauma can co-exist and may be seen as independent dimensions rather than opposite ends of a continuum (Linley & Joseph, 2004). A positive association between PTG and PTSS has been well documented in adult studies (see, e.g., Helgeson, Reynolds, & Tomich, 2006) and has been observed in youth samples as well. For example, Alisic et al. (2008) found a significant positive association between PTG scores and PTSS (r = .41) in a large community sample of 8 to 12-year-olds. A similar correlation was reported by Kilmer et al. (2009; r = .45) in a study of 7 to 10 year old children. Moreover, it seems that PTG may be greatest at moderate levels of posttraumatic stress symptomatology, as a curviliear relationship between the two have been identified in a large sample of Isreali youth (Levine, Laufer, Hamama-Raz, Stein, & Solomon, 2008).

Although findings have been mixed, in a review of 77 studies examining PTG in adults, the PTG-PTSS relationship was attenuated with the passage of time since the incident, indicating that PTG may be associated with reduction in stress symptoms over time (Helgeson et al., 2006). Similar results have not been published for child and adolescents, and knowledge of how reduction in stress symptoms relate to PTG in younger age groups is thus limited. Moreover, although work has supported the notion that subjective reactions and ongoing distress relate more strongly to PTG in children than objective characteristics of the trauma exposure (e.g., Kilmer et al., 2009), a finding consistent with PTG models, no

published study has examined the association between PTG and PTSS in children and adolescents in a context in which ongoing adversity was minimized. Such knowledge can have meaningful implications for clinical work with traumatized children, by shedding light on the processes that may contribute to perceived positive changes and, potentially, positive adjustment (Kilmer & Gil-Rivas, in press).

The present study examined post-disaster adaptation and PTG among Norwegian children and adolescents returning home after the 2004 tsunami in Southeast Asia. During their vacation in Thailand, these youth and their families were exposed to life-threatening situations, suffered serious physical injuries and, in some cases, were separated from their loved ones for hours or days. However, unlike those living in the affected areas, they were able to return relatively soon to the safety and routine of their homes. Most did not face the ongoing secondary adversities that often accompany natural disasters. Further, given that this was the largest peace time fatal event on record involving Norwegian citizens (84 Norwegians died), they returned to an environment in which the nation's government and citizens mobilized to provide support and, as needed, services.

These various factors provided an unusual context that made it possible to explore relationships between trauma-related processes (e.g., objective and subjective exposure variables) and post-disaster adaptation, including PTG as well as PTSS. To our knowledge, no published study has examined PTG in children exposed to a high-impact disaster and relocated to safe and familiar surroundings relatively soon thereafter. Therefore, a prime aim of the present study was to explore PTG and adaptation in these children and adolescents. Specifically, this study sought to investigate trauma-related correlates of PTG, explore linkages between PTG and post-disaster adjustment, and, in light of the salient developmental considerations inherent in the study of PTG (Kilmer & Gil-Rivas, in press), examine possible differences related to child age. It also assessed the degree to which PTG related to reports of

distress and, more specifically, the relationship between declines in PTSS levels over time and later reports of PTG.

It was hypothesized that the disaster experiences of the children and adolescents would contribute to later perceptions of PTG. Based on previous findings, we expected positive associations between trauma exposure, appraisal of the situation (i.e., subjective reactions and responses), and PTG, as well as between previous and concurrent levels of PTSS and PTG. Based on previous findings, it was also hypothesized that a reduction in PTSS symptoms over time would be associated with higher levels of concurrent PTG. Finally, although prior research on the influence of age has been mixed, we expected to find higher levels of PTG in adolescents than in younger children, as the process underlying such positive change is likely to be influenced by cognitive maturity. A wide age range (6-17) was targeted because it would permit examination of relevant developmental considerations among constructs that may be associated with PTG.

Method

Participants

Participants included 105 children and adolescents from 67 families exposed to the 2004 Southeast Asian Tsunami. They ranged in age from 6 to 17 years (M = 11.9; SD = 3.3) at the time they experienced the disaster, and 56.2% were girls. The sample was fairly homogenous with regard to socioeconomic status – 91.8% of the fathers and 62.1% of the mothers reported full-time employment (minimum 37 hours per week), figures that correspond to those of the general population in Norway (Statistics Norway, June 30, 2009). Moreover, 69.8% (25.9% in the general population) of the parents had earned degrees from a college or university, a considerably higher percentage than that observed in the general population (Statistics Norway, June 30, 2009). About half the participating families (n = 36, 53.7%) had been travelling with more than one child, and all eligible children were included

in this study. The vast majority of the children (81.3 %) were living with both biological parents (relative to 75.0% in the general population), while 11.1% lived with single parents. The remaining children and adolescents lived with biological- and step-parents or with other relatives. None of the participants were bereaved, i.e., those who had lost family members in the tsunami were not included in the sample.

Study design and recruitment

The present study used data collected in the second and the third phases of a longitudinal study of Norwegian citizens exposed to the 2004 tsunami while travelling in Thailand, and data were collected approximately 10 months and 2 ½ years after the disaster. Participants were originally identified through the Norwegian police agency's lists of citizens returning to Oslo International Airport from the exposed areas (N = 718 children). Each adult citizen on these lists received a postal questionnaire (June, 2005, Time 1 [T1]) and children and their parents were recruited from those responding to this questionnaire (N = 317 children, 44.1% response rate for T1). Participating families were contacted for a follow-up interview (Time 2 [T2]) approximately one year post-disaster, and parents of 147 children (46.3 % response rate) agreed to take part. A second follow-up interview was conducted 2 ½ years post-disaster (Time 3 [T3]), and parents of 107 children (72.8 % response rate from T2 to T3) agreed for themselves and their children to participate. Two of these children had not been in tsunami-affected areas during the disaster and were excluded from further analyses, leaving 105 children and adolescents in the final sample. This final T3 sample reflects 33.1% of those for whom the T1 questionnaire was completed. Children and adolescents who participated at T3 did not differ significantly from participants who responded to T1 or T2 but declined to participate in the T3 follow-up, with respect to age, sex, trauma exposure, or posttraumatic stress reactions.

Measures

Prior adversity exposure. At T2, parents reported about their children's negative life events prior to the tsunami. On this 9-item checklist, parents indicated whether a range of events (e.g., experiencing the death of a close family member, being in a serious accident, suffering from serious illness, being a victim of violence) were present or absent, and a total score was calculated by adding all endorsed items.

Objective tsunami-related exposure. Based on information about the critical events experienced during the tsunami, an exposure scale was developed for this study. The degree of exposure each child experienced was indicated by parental reports at T1, i.e., six months post-disaster. The checklist included eight yes/no exposure items (e.g., being in physical danger, seeing a dead body, being caught by the water), and a total exposure score was calculated by adding the items endorsed.

Subjective tsunami-related reactions. In addition, each child's self-reported emotional reactions to the event (i.e., subjective exposure) were measured at T2 via 9 items from the UCLA Posttraumatic Stress Disorder (PTSD) Index – Revision 1 (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998). The first nine items of the PTSD-RI retrospectively assess the subjective feelings of distress during or immediately after the event (e.g., "Were you scared that you would die?", "Were you scared that you would be hurt badly?" "Did you feel very confused?"). A total subjective exposure score was obtained by adding all items. The UCLA PTSD Reaction Index (other components listed below) was translated to Norwegian, using standard back-translation procedures (Norwegian Centre for Violence and Traumatic Stress Studies, 2005), and the items measuring subjective reactions had adequate internal consistency, $\alpha = .69$.

Posttraumatic stress symptoms. Posttraumatic stress symptoms (PTSS) were evaluated at T2 and T3 using the self-report child UCLA PTSD Reaction Index-Revision 1 (Pynoos et al., 1998). The 20-item scale assesses DSM-IV (APA, 1994) PTSD-related

symptoms: re-experiencing, arousal, and avoidance. It also includes 2 items assessing other symptoms of clinical significance (i.e., fears of recurrence and trauma-related guilt). Items assess the frequency of symptoms over the past month, with response options ranging from 0 (*None*) to 4 (*Most of the Time*). According to procedures suggested by Steinberg and colleagues (2004), 17 items were added to make up a total symptom score. Possible scores range from 0-68, and the authors suggest that a total score of 38 or greater indicates the presence of probable PTSD (Steinberg et al., 2004). Cronbach's alpha was .87 at T2 and .82 at T3. The scale has not previously been employed in larger Norwegian studies and normative data were not available.

Posttraumatic growth. The Posttraumatic Growth Inventory for Children-Revised (PTGI-C-R; Kilmer et al., 2009) was administered at T3. Participants responded to open-ended items assessing changes perceived in their lives and themselves since the tsunami. Then, following the prompt, "For each of these, I want you to let me know how much you have changed since the tsunami," the participants also answered ten items assessing changes in five PTG domains: *New Possibilities* ("I now have a chance to do some things I couldn't do before"); *Relating to Others* ("I feel closer to other people (friends and family) than I used to"); *Personal Strength* ("I learned that I can deal with more things than I thought); *Appreciation of Life* ("I know what is important to me better than I used to"); *Spiritual Change* ("My faith (belief) in God is stronger than it was before"). Prior findings (Kilmer et al., 2009; see also Alisic et al., 2008) attest to measure's construct validity and suggest it is a reliable measure, appropriate for use with children in middle childhood and older. Previous findings also demonstrate that children can engage the temporal component of questions inquiring about change experienced since the event, and obtained results have generally been consistent with theory and hypotheses (Alisic et al., 2008; Kilmer & Gil-Rivas, in press; Kilmer et al., 2009). In this study, after piloting the scale, one item (item 10: "I have new

ideas about how I want things to be when I grow up") was modified slightly to indicate a more concrete future vision. Children responded on a 4-point scale (0 = *no change*, 3 = *a lot of change*). Consistent with prior work, a total score was computed by adding all items. Alpha for the original scale = .77 at baseline and .81 at follow-up, roughly 10 months later (see Kilmer et al., 2009). The Norwegian version was obtained by using back translation methods; it demonstrated adequate internal reliability ($\alpha = .74$).

Procedures

The study was approved by The National Committee for Research Ethics in the Social Sciences and the Humanities in Norway. Following written parental consent (i.e., for themselves and their children), all study youth provided written assent. They were informed that they could withdraw from the study at any time. Separate face-to-face interviews were conducted with youth and parents by clinical psychologists, psychiatrists, and educators who received a two day training program in the use of the research protocol and instruments. Interviewers were prepared to assess distress reactions and assist participants in obtaining services or supports as needed.

Data analyses

All calculations and analyses were conducted using SPSS version 16.0. Missing data were handled by a Maximum likelihood estimation (MLE) procedure. Frequencies, means and standard deviations were calculated for key study variables. Student's *t* tests and ANOVAs were used to compare mean values. Bivariate analyses of factors related to PTG scores were conducted using Pearson's product moment correlations. The sample consisted of 105 children nested in 67 families. Half of the families ($n = 33$, 49.2%) had only one child participating; for the other half, siblings were included in the study. Such clustered sampling (i.e., two sampling levels: families and children) may lead to alpha inflation and increase Type I errors (Shrout & Fleiss, 1979) because the correlations within families are assumed to

be higher than correlations between families. Thus, the assumptions of independence of measures, on which regression analysis is based, are violated (Hox, 2002). Intraclass correlations (ICC) were calculated to detect systematic differences among the family clusters. ICCs showed that the variance between families accounted for 41% of the total variance in the dependent variable. This sampling problem (i.e., lack of independent measurements across all study participants) was addressed by using multilevel analyses, and Mixed Linear Models were employed because they allow for simultaneous regressions of data from different sampling levels on the dependent variable, correcting for systematic sampling errors (Hox, 2002).

Results

Tsunami exposure, posttraumatic symptoms and posttraumatic growth

Table 1 presents descriptive statistics for key study variables, and Table 2 summarizes adversity experiences, both lifetime exposure and tsunami-related events. Overall, children reported high tsunami-related exposure. According to parental report, 44.8% experienced three or more traumatic events during the tsunami. All participants had been staying in areas affected by the tsunami, and 68.6% of the children had been in *physical danger caused by the wav*e. Other events frequently endorsed by parents included: *witnessing physical injuries in others* (58.1%), *encountering other dangers during evacuation* (37.1%), *being separated from one's caregiver* (30.5%), and *witnessing dead bodies* (29.5%). In the youth interviews, 55.2% reported a perceived life threat during the disaster, while 82.2% reported that this was one of the most frightening experiences they had ever had. About three quarters (74.8%) had also been scared that family members or close friends would die during the disaster.

At T2 (10 months post-disaster), youth reported mild to moderate levels of PTSS (M = 14.0, SD = 10.1), and two children (1.4%) reported symptoms above 38, the suggested cut-off for clinical PTSD on the PTSD-RI (Steinberg et al., 2004). At the T3 follow-up, 2 ½ years

post-disaster, children and adolescents evidenced mild levels of PTSS on average (M = 8.8, SD = 7.1), and none of the participants had a total score above 38. For the sample overall, there was a significant decrease in PTSS from T2 to T3 (t = 12.7, df = 104, p < .001) (see Jensen, Dyb, & Nygaard, 2009 for a more detailed discussion).

On the PTGI-C-R, 52.4% of participants reported "a lot" of change related to their experience with the tsunami on at least one of the measure's 10 items, but only 3.0 % had total PTG scores of 20 or greater (i.e., an average score of at least "some" perceived positive change). Thirty-two percent obtained an average score between 11 and 20 (suggesting "a little" to "some" growth), and the remaining 65% of the sample had an average lower than 10, indicating minimal PTG. The items with the highest average means were: "I learned how nice and helpful some people can be;" and "I know what is important to me better than I used to." The items with the lowest means reflected spiritual growth: "I understand how God works better than I used to;" and "My faith (belief) in God is stronger than it was before." Boys (M = 7.3, SD = 5.0) and girls (M = 8.7, SD = 5.1) did not differ on total PTG scores, $t(103)$ = 1.45, n.s., and ANOVA did not detect significant differences between age groups in the PTG total scores (F = .76, df = 2, p > .05).

Associations among key study variables

Table 3 lists bivariate intercorrelations among the study's variables. Objective exposure scores and subjective emotional reactions were associated positively with one another, and both variables were correlated positively with PTG; consistent with hypotheses, subjective reactions were more strongly associated with PTG scores, indicating higher levels of perceived growth in those who had experienced higher levels of fear during the disaster.

PTG was positively and significantly related to PTSS, both concurrent (i.e., T3) and previous levels (i.e., T2). This association remained significant when controlling for objective and subjective tsunami exposure (r = .39, p < .001, and r = .36, p < .001, respectively). For

the sample overall, age did not correlate significantly with PTSS at T2 or T3, nor with the PTG total score.

Multivariate analyses of factors relating to PTG in children and adolescents

Multilevel analyses were conducted to assess the contribution of gender, age, prior negative life events, tsunami exposure and posttrauma distress to PTG (see Table 4) and to adjust for the clustering of data within families. Five models were tested, following the hypotheses of this study. The first model (Model 1) was set up to assess the unexplained variance between children and families (see Hox, 2002), and did not include any of the predictor or control variables. Then,control variables were included in Model 2. Because assessing the unique contribution of the tsunami-experience to PTG in this sample was a prime goal, Prior Life Event(s) was included as a control variable in order to account for other traumatic events experienced prior to the tsunami. The contribution of gender to the development of PTG has varied across studies, and was included to control for the potential influence of child gender on the results. In Model 3, predictor variables were included according to the study hypotheses. Child age, objective and subjective exposure, as well as PTSS at T2 and T3 were included in this model. Then, to investigate the link between PTSS improvement and self-reported PTG, this interaction (PTSS T2 x PTSS T3) was tested in Model 4. Finally, due to the cognitive and emotional processes assumed to contribute to the development of PTG, there is reason to believe that, although child age does not necessarily predict PTG, developmental differences may play a role in the relationship between distress and PTG. Given that this possibility has not been assessed, age was tested as a possible moderator between significant predictors and the PTG outcome variable. All calculations were computed in SPSS 16.0 with Maximum Likelihood Estimation.

The final model explained 32% of the total variance in child and adolescent PTG. Gender, age and prior negative life events were not significantly related PTG. Subjective

exposure served as a significant predictor of PTG while objective exposure did not. As expected, PTSS at T3 related significantly to PTG. Finally, the interaction between PTSS decline and PTG was not significant, suggesting that individuals experiencing higher levels of PTG 2½ years after the tsunami did not have a greater reduction of posttraumatic stress symptoms from 10 months to 2 ½ years than did youth reporting lower levels of PTG.

In sum, self-reported emotional reactions to the event (collected at T2) and T3 PTSS were the strongest predictors of concurrent PTG in this sample. Although PTSS decline from T2 to T3 was significant, this symptom improvement was not associated with PTG. Finally, age did not predict PTG, nor was there any interaction with age (model not shown).

Discussion

The present study examined the extent to which Norwegian youth experienced positive changes as a result of being exposed to a high-impact natural disaster. Compared to other studies exploring PTG in children and adolescents (e.g., Kilmer et al., 2009), the current sample reported low levels of growth related to the disaster. They also reported lower levels of PTSS than in studies examining children living in the tsunami-affected areas (e.g., John et al., 2007; Neuner et al., 2006). In light of the magnitude of the disaster and the severity of the potentially traumatizing events many of the Norwegian children and adolescents faced during the tsunami, these findings were unexpected. However, they may be attributed, at least in part, to some core differences between the current sample and those from prior studies (e.g. Gil-Rivas, Kilmer, Hypes, & Roof, 2010; Kilmer & Gil-Rivas, in press).

The divergent scores across samples may reflect salient differences in key elements of the disaster-related traumatic experience. That is, following the acute trauma exposure during the tsunami and its immediate aftermath, the children and adolescents in this study returned to the safety and comfort of their home environments, support networks, and the like. This may have reduced their experience of ongoing disaster-related adversity in the time that

followed. Thus, these children and adolescents had a qualitatively different post-disaster experience than many, including those in many disaster studies, such as children impacted by Hurricane Katrina (Kilmer & Gil-Rivas, in press; Kilmer et al., 2009) or Thai and Sri Lankan children who had their homes and schools damaged or destroyed by the tsunami and who were, in some cases, relocated to intermediate survivor camps (e.g., John et al., 2007; Neuner et al., 2006). Although there was sufficient acute stress (and distress) to contribute to PTSS and PTG in some of the children and adolescents, these differences in circumstance may explain the sample's low overall PTG (and PTSS) scores. According to PTG theory, one's ongoing distress and struggle in trauma's aftermath are the prime factors that catalyze growth (Tedeschi et al., 2007). The low levels of PTSS and PTG in the present context provide empirical support for other core ideas about PTG's development and maintenance. More specifically, it may be that the absence of ongoing distress and struggle reduces the likelihood of PTG. This notion is consistent with conceptualizations of PTG and, while other factors may have contributed to the lower observed scores (see below), the present study provides the first empirical documentation of this point in the child and adolescent PTG literature. Few studies have sought to examine aspects of the PTG process and model, considering the relative influence of hypothesized factors (see Cryder et al., 2006; Kilmer & Gil-Rivas, in press; and Kilmer et al., 2009 for exceptions). As such, this finding constitutes a meaningful contribution to the literature on PTG among youths.

Few studies have explored PTG in children and adolescents outside the U.S. using standardized measures (see Alisic et al., 2008 for an exception). However, studies from countries across the world have typically found lower mean PTGI scores in adults, as well as individual items or dimensions from the PTGI that are not endorsed in the manner observed in U.S. samples (e.g., Shakespeare-Finch & Copping, 2006). McMillen (2004) proposes that the U.S. culture may promote considering the positive side of experience to a greater extent

than other cultures. Hence, the types of growth experiences North Americans report may be different from those in non-U.S. samples. This possibility warrants further study.

Other cultural factors may also have influenced the present results. For instance, the items reflecting spiritual growth exhibited the lowest absolute means in the current study and seemed to contribute disproportionately to the relatively low mean total score. In contrast, children exposed to Hurricane Katrina along the U.S. Gulf Coast reported the most absolute growth on these same items (Kilmer et al., 2009). The latter finding may reflect the children's contexts, "a region widely-regarded as high in religiosity" and may also have been influenced by faith-based explanations or encouragement of faith-based coping by caregivers and other adults (Kilmer et al., 2009, p. 251). In contrast, Norway, similar to many other European countries, has gone through a considerable secularization in recent decades (Statistics Norway, May 5, 2009). Thus, in this cultural context, it is not surprising that the children reported few changes in this domain. Similar results have been found in studies with adults outside the U.S., in particular in Europe (e.g., Znoj, 2005). Such patterns of findings highlight the importance of culture and context in examining a phenomenon such as PTG.

That youths' subjective reactions to the disaster were more strongly associated with their reports of PTG than the objective features of their event exposure indicates that the appraisal of threat and danger in the situation is crucial for PTG, and supports theoretical assumptions that PTG develops through a cognitive process launched by the challenges the trauma may represent to the individual's basic world assumptions (Tedeschi et al., 2007). The importance of subjective appraisal is supported by research on negative reactions after trauma (i.e., PTSS or PTSD). For instance, Roussos et al. (2005) found that, among child victims of an earthquake, objective exposure accounted for only 1.7% of the variance in PTSD, while subjective exposure scores accounted for 11%.

As hypothesized, PTG was correlated with both current and previous PTSS. This corresponds with earlier findings (e.g., Alisic et al., 2008; Salter & Stallard, 2004) documenting an association between distress and PTG. However, the hypothesis that reductions in PTSS would be associated with PTG was not confirmed, and PTG was more strongly related to concurrent PTSS. Although self-reported PTSS decreased significantly between T2 and T3, the decrease in PTSS was not associated with higher levels of growth. Hence, PTG seemed more closely related to the enduring distress experienced by these children than to the reduction of stress or distress over time. This may reflect that PTG is a distinct construct from "good adjustment" (Kadell, Regehr, & Hemsworth, 2003). Some researchers have argued that this often-reported positive correlation between PTG and PTSS or distress may indicate that reports of positive changes following trauma may reflect a coping process (e.g. Best, Steisand, Catania, & Kazak, 2001) rather than a valid report of change. Others (e.g., Tedeschi & Calhoun, 2006) have argued that the co-existence of stress symptoms and PTG may indicate that a certain level of stress is necessary for stimulating the cognitive process resulting in positive perceived changes. However, more elaborate longitudinal designs exploring this process are needed to assess whether the correlation between PTSS and PTG reflects shared or related cognitive changes between the two and, more critically, to elucidate the nature of the relationship between PTG and posttraumatic adjustment. Prior findings with adults have been mixed, and few studies have explored the longer-term relationship between PTG and adaptation (or prognosis) (see Helgeson et al., 2006). One prospective longitudinal study demonstrated that adolescent girls who reported higher PTG had less emotional distress up to 12 and 18 months post-event (Ickovics et al., 2006), and others have reported a relationship between PTG and health-related behaviors (Milam et al., 2004). Nevertheless, prospective-longitudinal studies are necessary to further examine the degree to which PTG relates to the course of PTSS over time. Such work might

also extend the knowledge base by examining the impact of PTG on other aspects of psychological and behavioral functioning, such as quality of life and the quality of one's social relationships.

Finally, contrary to expectations, there were no effects of age on PTG in this sample, despite the broad age range of the participants. There was no main effect of age on the PTG total score or PTSS, nor any interaction effects between age and significant predictor variables. Thus, notwithstanding the exception of Milam et al.'s (2004) reported positive age-PTG correlation in adolescents, this study is consistent with several other findings (Cryder et al., 2006; Kilmer et al., 2009; Laufer & Solomon, 2006) in which investigators did not detect an association between age and the level of growth. Given that developmental capacities would appear to play a salient role in the process, and perhaps even relate to the areas in which a child experiences and reports growth or the potential influence of others in facilitating the growth process (Kilmer & Gil-Rivas, in press), it is clear that further work is necessary to understand the possible effect(s) associated with a youth's age.

The present study contributes to the existing knowledge on PTG in children and adolescents by demonstrating the importance of the subjective experience of trauma and, albeit indirectly, the salience of secondary adversities and ongoing distress in the development of both positive and negative consequences following a natural disaster. Nevertheless, limitations of this study and its design should be taken into consideration. First, the design would have been strengthened by assessing PTG at all three time points. Doing so would have yielded more information about how PTG emerges and how it relates to PTSS over time. Moreover, as this study did not include measures of well-being or positive adjustment, the study can not assess the degree to which PTG may relate to positive adjustment. As in most disaster studies, the data in this study were collected retrospectively, and data regarding child health and growth before the tsunami were not available. It is

therefore difficult to determine the precise degree of change in this sample. Another common problem with disaster studies, also reflected in this study, is the relatively high attrition rate. Attrition from one measurement point to another may compromise the generalizability of the findings. Also, parents reported on prior adversity exposure, a factor used as a control variable; while studies of children's disaster- and trauma-related experiences often rely on such adult reports, this step does constitute a possible limitation – that is, they may have experienced a particular event, but may or may not have ascribed meaning and weight to the event (e.g., the death of a relative when the child was 2 years old) depending upon their developmental level and other factors. Finally, due to sampling issues (i.e., for systematic, non-random reasons) in the project, none of the participants in this study was bereaved. There is reason to believe that this systematic exclusion of participants who had experienced loss as a result of the tsunami may have impacted the results.

However, findings from this study are consistent with prior research suggesting that even fairly young children report positive changes after trauma. Documenting that youth can experience growth after adversities and identifying circumstances associated with effective coping or PTG may assist professionals in recognizing and attending to positive factors and, perhaps, subsequently facilitating the enhancement of factors fostering PTG (Kilmer, 2006).

With regard to clinical practice, the results suggest that it may be premature to encourage the active promotion of PTG in children and adolescents who have experienced trauma, as these data do not indicate that symptom improvement and reports of PTG are related. Alisic et al (2008) reported a positive (although modest) association between PTG and quality of life in children and adolescents, but few studies to date have reported a relationship between PTG and positive adjustment in these age groups. However, the coexistence between distress and perceived personal growth found in this study also suggests that, when the timing is appropriate, it may be useful to assess positive changes and strengths,

among those who have experienced trauma. Tedeschi and Kilmer (2005) note that assessing PTG may have utility even though it may not necessarily relieve distress, because distress may be easier to tolerate if one recognizes a meaningful aspect to the experience (see Kilmer & Gil-Rivas, 2008 for a discussion of facilitating PTG in youth). As noted by Clay, Knibbs and Joseph (2009), in such circumstances, nondirective therapies may be indicated, so that the child can perhaps open up a discussion towards positive changes. When this happens, the therapist may include growth as a focus for intervention (Joseph & Linley, 2006). Finally, further work is necessary to understand the trajectory of PTG and its association with post-trauma adaptation in the longer-term, a potential relationship with clear clinical implications.

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Table 1.

Descriptive Statistics for Key Study Variables.

N=105	N (%)	Mean	SD	Range
Age at time of tsunami		11.9	3.3	6-17
Gender				
Girls	59 (56.2)			
Boys	48 (43.8)			
Number of siblings exposed		0.8	0.9	0-4
Objective exposure		3.7	1.9	1-8[1]
Subjective exposure		5.4	2.3	0-9[2]
Posttraumatic stress symptoms - T2		14.1	10.1	0-51[3]
Posttraumatic stress symptoms - T3		8.8	7.1	0-33[3]
Posttraumatic growth - T3		8.1	5.1	0-23[4]

Note. [1] Max score = 8, [2] Max score = 9, [3] Max score = 68, [4] Max score = 30

Table 2.

Parent-reported youth adversity experiences: Negative life event exposure prior to the tsunami and tsunami-related traumatic experiences.

	N	%
Events Experienced Prior to the Tsunami		
Sudden death of family member	26	24.8
Serious illness in family member	24	22.9
Parental divorce with significant conflict	11	10.5
Other negative events (e.g., house fire, car accident)	8	7.6
Serious accident	5	4.8
Serious illness	4	3.8
Exposed to violence or witness to violence	2	1.9
Tsunami-Related Traumatic Events	N	%
Physical danger caused by the wave	72	68.6
Caught by the wave	15	14.3
Suffered bodily injuries	14	13.3
Separated from caregiver	32	30.5
Saw others being injured	61	58.1
Saw dead bodies	31	29.5
Encountered other dangers during evacuation	39	37.1
Experienced a lack of food, water or necessary medication during evacuation	18	17.1

Note. *N* =105.

Table 3.

Correlations between key child variables.

	1	2	3	4	5	6
1. Posttraumatic growth	---					
2. Age	.06	---				
3. Prior life events	.20*	.32***	---			
4. Objective exposure	.22*	.02	.16	---		
5. Subjective exposure	.42***	.01	.13	.37***	---	
6. PTSS T2	.39***	-.02	.14	.22*	.40*	---
7. PTSS total T3	.43***	.13	.12	.14	.20*	.56***

Note. PTSS = posttraumatic stress symptoms. $N = 105$. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4.

Multilevel analyses of factors predicting posttraumatic growth in children and adolescents.

	Model 1	Model 2	Model 3	Model 4
Fixed effects	Est. (SE)	Est. (SE)	Est. (SE)	Est. (SE)
Intercept	8.14 (.59)***	7.26 (.75)***	8.05 (.65)***	8.32 (.71)***
Control variables				
Gender		1.37(.90)	-0.19 (.85)	-0.37(.87)
Prior life events		0.92(.50)	0.65(.44)	0.68(.44)
Predictors				
Age			-0.11(.14)	-0.10(.13)
Objective exposure			0.25(.25)	0.25(.24)
Subjective exposure			0.61(.19)**	0.63(.29)**
PTSS Time 2			0.03(.05)	0.04(.05)
PTSS Time 3			0.21(.07)	0.25(.08)**
Interaction				
PTSS T2- PTSS T3 change				-0.01 (-.01)
Random effects	Est.(SE)	Est.(SE)	Est.(SE)	Est.(SE)
Variation between youth	15.95(3.60)***	14.91(3.22)***	14.11(2.85)***	14.50(2.94)***
Variation between families	11.06(4.46)**	9.53(3.89)**	3.39(2.52)	2.97(2.50)
AIC	612	610	602	604

Note. PTSS = posttraumatic stress symptoms. * $p < .05$, ** $p < .01$, *** $p < .001$.

IV

APPENDIX I

Interview guide T2
10 months post-disaster
Children

Tsunamien – Berørte barn og foreldre

Tsunamien – Berørte foreldre og barn
Intervjuguide barn.

Introduksjon og samtykke
Leses opp for barn under 12år

Samtykke

Vi kommer til å snakke med mange barn som har opplevd lignende ting som deg.
Grunnen til det er at det er viktig at vi voksne lærer mest mulig om hvordan det er for barn å oppleve slike ting som det du opplevde. Da kan vi bli flinkere til å forstå og hjelpe andre barn som har det som deg.

Jeg er opptatt av å høre hvordan ting har vært for deg og det kan være litt forskjellig eller litt likt sånn som de andre i familien din opplevde det.

Hvis du synes det er i orden og bestemmer deg for at du vil snakke med meg kommer det du forteller til å bli mellom deg og meg. Hvis du sier noe som gjør at jeg blir bekymret for deg kan det hende jeg må fortelle det til en av de voksne slik at de kan hjelpe deg. Men da vil jeg si fra til deg først.

Jeg har med en båndopptager for at jeg skal huske alt du har sagt.

Hvis du synes alt dette er greit kan du skrive under på dette skjemaet

_____

Skriv navnet ditt her

Informasjon om deltakelse i en undersøkelse om barns opplevelser etter flodbølgekatastrofen.

I denne undersøkelsen er vi interessert i å vite hvordan barn og ungdom opplevde det som skjedde da flodbølgen kom 2. juledag og hvordan det går med dem nå i tiden etterpå. Det er viktig for oss å forstå hvordan barn og ungdom opplever slike voldsomme katastrofer. Det gjør at vi kan lære mer om hvordan vi kan hjelpe andre barn og unge som opplever slike ting som du opplevde.

Vi som skal snakke med deg jobber på noe som heter Nasjonalt kunnskapssenter om vold og traumatisk stress (NKVTS). På dette steder studerer vi ulike ting som har med barn å gjøre.

Det vi kommer til å spørre deg om er hvordan du opplevde det da flodbølgen kom, hvordan det var for deg i tiden etterpå, og hvordan du har det nå. Vi ønsker også å vite noe om hva du synes har vært til hjelp for deg eller hva som har vært vanskelig for deg i tiden etterpå.

Jeg som skal spørre deg om disse tingene har taushetsplikt. Det betyr at jeg ikke har lov til å fortelle andre om det du sier uten at du selv vil det. Når vi skal skrive om dette senere vil vi ikke bruke ditt navn eller andre opplysninger som gjør at noen vil vite at det er deg vi snakker om.

Jeg kommer til å ta opp vi snakker om på lydbånd sånn at jeg får med meg alt det viktige du forteller meg.

Det er helt opp til deg om du vil snakke med oss. Hvis du bestemmer deg for at du vil snakke med oss, kan du likevel når som helst ombestemme deg.

Hvis du synes det er i orden kan du skrive navnet ditt under:

Jeg synes det er i orden at jeg blir intervjuet om mine opplevelser i forbindelse med flodbølgen 2. juledag

_____

Skriv navnet ditt her

- sett på båndopptaker-

Barnets navn:

Født:

Intervjuer:

Dato:

Hvis noen andre var tilstede under intervjuet skriv hvem:

Introduksjon:

Jeg er mest opptatt av å høre hvordan det var for deg da du var i Thailand med .....og hvordan det har vært etter at du kom hjem.
Det er du som vet best hvordan det var for deg å være der og hvordan det har vært i tiden etterpå.

Det er lenge siden mye av dette skjedde så det kan hende du ikke husker så mye. Det er helt i orden. Jeg vil bare at du skal fortelle det du husker og slik det var for deg.
Si ifra til meg hvis: det er noe du ikke forstår, eller hvis det er noe du synes det er vanskelig å svare på.
Hvis du vil ha en pause så er det helt i orden.

Først vil jeg at du skal fortelle meg mest mulig om det som skjedde, og så har jeg noen spørsmål jeg kommer til å spørre deg om. Til slutt har jeg noen skjemaer jeg vil at du skal fylle ut eller som jeg kommer til å lese opp og som du skal svare på.

I: BARNETS NARRATIV:

I A. Kronologisk historie

- *Jeg vet at du var i Thailand (evt. annet land) på juleferie sammen med familien din. Og når du var der så skjedde det noe. Fortell meg om det...*

Dersom barnet ikke svarer på det kan man si; *Jeg vet at det kom en kjempe stor bølge. Fortell meg om øyeblikket (situasjonen) før bølgen kom.*

La barnet fortelle mest mulig fritt.
Hjelp barnet videre ved å si *"Hva skjedde da?"*.
Hjelp barnet til å utdype ved å si *"Fortell meg om det."*
eller gjenta det siste de sa

I B. Forståelse av hendelsen

- *Nå har du fortalt meg om det som skjedde. Hva tenker du det kom av at det gikk som det gikk?*

II DET VERSTE ØYEBLIKKET.

- Oppsummer kort historien og så si *"av alt det som skjedde hva synes du var det verste som du opplevde?"*

For eksempel: Nå har du fortalt at da bølgen kom så satt dere å spiste frokost og at du og pappa ble tatt av vannet og at mamma kom bort fra dere men så fant dere sammen alle sammen på sykehuset. Av *alt det som skjedde hva synes du var det verste som skjedde?*

Hvis ikke barnet har fortalt om hendelsen spør: *Hva skjedde da?*

- *Da dette skjedde tenkte du eller sa du noe til deg selv for at du skulle føle deg bedre?*

Eventuelt *Hva?*

III SKYLD TANKER

- *Når du tenker tilbake på alt det som skjedde, tenker du noen gang at du skulle gjort noe annerledes?*

IV OPPLEVELSER AV ENDRINGER

- *Er det noe som har forandret seg hjemme etter at dere kom hjem? Beskriv*

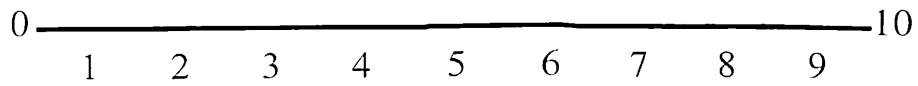
- *Er det noe som har forandret seg på skolen etter at dere kom hjem? Beskriv*

- *Er det noe som har forandret seg med venner etter at dere kom hjem? Beskriv (mulig tema: det å føle seg annerledes. få for mye/lite oppmerksomhet)*

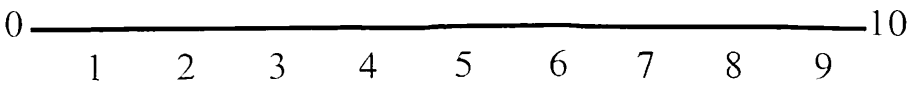
V HVORDAN DE HAR DET NÅ

- ***På en skala fra 0 til 10 (vise skala) hvor 0 er det dårligste man kan ha det og 10 er det beste man kan ha det:***

  Hvordan har du det nå for tiden? *(skriv ned tallet)*



- ***Hvordan hadde du det før du dro til Thailand?*** *(skriv ned tallet)*



VI GRUNNLEGGENDE ANTAGELER OM VERDEN

(NB bare for barn 12-18 år. For yngre barn gå rett på PTSD skjema)

➢ *Noen ganger kan mennesker som har opplevd en katastrofe forandre syn på en del ting.*

Tenker du at verden er et godt sted? Ja ☐ Nei ☐
Har dette forandret seg etter tsunamien? Fortell

Tenker du at mennesker stort sett er gode? Ja ☐ Nei ☐
Har dette forandret seg etter tsunamien? Fortell

Tenker du at fæle ting kan skje med gode mennesker? Ja ☐ Nei ☐
Har dette forandret seg etter tsunamien? Fortell

Tenker du at mennesker stort sett kan forhindre at dårlige ting skjer? Ja ☐ Nei ☐

Har dette forandret seg etter tsunamien? Fortell

Tenker du at det som skjer er helt tilfeldig? Ja ☐ Nei ☐
Har dette forandret seg etter tsunamien? Fortell

VII PTSD SKJEMA

UCLAs PTSD-INDEKS FOR DSM IV

DEL 1: Om flodbølgen

(Spør disse spørsmålene dersom det er uklart fra barnets fortelling om noen døde eller ble alvorlig skadet i familien/venner. Hvis svaret er gitt, kryss av.)

7 $_{A1}$ Var det noen i familien eller venner som døde? Ja [ ] Nei [ ]

6$_{A1}$ Ble noen i familien eller venner alvorlig skadet? Ja [ ] Nei [ ]

Du har nettopp fortalt meg om det verste som skjedde da flodbølgen kom (gjenta det barnet har sagt om da flodbølgen kom og det verste som skjedde med barnet *under eller etter* at flodbølgen rammet). Jeg vil nå stille deg noen spørsmål om hvordan det var for deg under eller rett etter at .....(gjenta det som skjedde).

Intervjuer leser opp hvert spørsmål for barnet, og krysser av [Ja] eller [Nei]

1$_{A2}$) Var du redd for at du kom til å dø?	Ja [ ] Nei [ ]
2 $_{A2}$) Var du redd for at du kom til å bli alvorlig skadet?	Ja [ ] Nei [ ]
3 $_{A1}$) Ble du alvorlig skadet?	Ja [ ] Nei [ ]
Hvis ja, beskriv:	
4 $_{A2}$) Var du redd for at noen i familien eller venner kom til å dø?	Ja [ ] Nei [ ]
5 $_{A2}$) Var du redd for at noen i familien eller venner kom til å bli alvorlig skadet?	Ja [ ] Nei [ ]
6 $_{A2}$) Var du veldig redd, følte du at dette var en av de mest skremmende opplevelsene du noen gang har hatt?	Ja [ ] Nei [ ]
7$_{A2}$) Følte du at du ikke kunne stoppe det som skjedde, eller at du trengte hjelp fra noen?	Ja [ ] Nei [ ]
8 $_{A2}$) Følte du at det du opplevde, var motbydelig eller ekkelt?	Ja [ ] Nei [ ]
9 $_{A2}$) Løp du forvirret rundt eller oppførte du deg på en veldig oppkavet måte?	Ja [ ] Nei [ ]
10$_{A2}$) Følte du deg veldig forvirret?	Ja [ ] Nei [ ]
11$_{PD}$)Følte du at det som skjedde, på en måte ikke var virkelig, at det skjedde i en film, og ikke i virkeligheten?	Ja [ ] Nei [ ]

UCLAs PTSD-INDEKS FOR DSM IV

DEL 2: PTSD symptomer

Introduksjon til barnet: Etter at man har opplevd noe veldig ubehagelig eller skremmende slik som..... (gjenta det barnet har sagt om da flodbølgen rammet og det verste som skjedde barnet), kan det være at man får noen problemer. Jeg vil at du skal tenke på det som skjedde med deg. Jeg skal lese opp noen problemer som du kan ha etter det du har opplevd, så skriver jeg ned svaret ditt. Vi skal bruke dette skjemaet (ta frem rangeringsarket) for hvert spørsmål. For hvert spørsmål vil jeg vite hvor ofte dette har vært tilfellet for deg (den siste måneden). (Gå gjennom instruksen for rangeringen).

Til intervjueren: Les opp hvert utsagn og erstatt "det ubehagelige" med det verste barnet har opplevd under eller etter flodbølgen. SETT RING **RUNDT ETT** av tallene (0, 1, 2, 3 eller 4) som forteller hvor ofte barnet har opplevd problemet **den siste måneden**. Bruk **rangeringsarket** som hjelp for hvor ofte problemet har vært opplevd den siste måneden.

ALLE SPØRSMÅLENE MÅ BESVARES

HVOR MYE AV TIDEN DEN SISTE MÅNEDEN	Aldri	Sjelden	Noen ganger	Ofte	Nesten alltid
1_{D4} Jeg er på vakt for fare eller ting jeg er redd for.	0	1	2	3	4
2_{B4} Når noe minner meg om ***det som skjedde***, blir jeg veldig ute av meg, redd eller trist.	0	1	2	3	4
3_{B1} Jeg får skremmende tanker, ser for meg bilder eller hører lyder fra ***det som skjedde,*** selv om jeg ikke vil det.	0	1	2	3	4
4_{D2} Jeg føler meg sur, sint eller rasende.	0	1	2	3	4
5_{B2} Jeg drømmer om ***det som skjedde*** eller har mareritt om andre ting.	0	1	2	3	4
6_{B3} Jeg føler at jeg er tilbake til da ***det ubehagelige skjedde***, og opplever det om igjen.	0	1	2	3	4
7_{C4} Jeg har lyst til å være alene og ikke sammen med venner.	0	1	2	3	4
8_{C5} Jeg føler meg alene inni meg og føler ikke nærhet til andre mennesker.	0	1	2	3	4
9_{C1} Jeg forsøker å ikke snakke om det, tenke på det eller ha følelser rundt ***det som skjedde.***	0	1	2	3	4

HVOR MYE AV TIDEN DEN SISTE MÅNEDEN	Aldri	Sjelden	Noen ganger	Ofte	Nesten alltid
10_{C6} Jeg har problemer med å føle glede eller kjærlighet.	0	1	2	3	4
11_{C6} Jeg har problemer med å føle tristhet eller sinne.	0	1	2	3	4
12_{D5} Jeg blir lett urolig eller skvetter lett, for eksempel når jeg hører høye lyder eller når noe overrasker meg.	0	1	2	3	4
13_{D1} Jeg har problemer med å få sove eller jeg våkner ofte om natten.	0	1	2	3	4
14_{AF} Jeg tror at noe av ***det som skjedde***, er min feil.	0	1	2	3	4
15_{C3} Jeg har problemer med å huske viktige ting fra ***det som skjedde***.	0	1	2	3	4
16_{D3} Jeg har problemer med å konsentrere meg eller være oppmerksom.	0	1	2	3	4
17_{C2} Jeg forsøker å holde meg unna folk, steder eller ting som minner meg om ***det som skjedde***.	0	1	2	3	4
18_{B5} Når noe minner meg om ***det som skjedde***, får jeg sterke følelser i kroppen, for eksempel at hjertet slår fort, eller at jeg får hodepine eller mageknip.	0	1	2	3	4
19_{C7} Jeg tror ikke at jeg kommer til å leve lenge.	0	1	2	3	4
20_{D2} Jeg krangler eller slåss mye.	0	1	2	3	4
21_{C7} *Jeg er negativ eller pessimistisk når jeg tenker på fremtiden.	0	1	2	3	4
22_{AF} Jeg er redd for at ***det ubehagelige*** skal skje igjen.	0	1	2	3	4
23_{IT} Jeg tenker på hva jeg kunne ha gjort for å hindre at ***det ubehagelige*** skjedde.	0	1	2	3	4
24_{IT} Jeg tenker på ting jeg kan gjøre for at ***det ubehagelige*** eller noe lignende ikke skal skje igjen med meg eller noen jeg er glad i.	0	1	2	3	4

* Dersom barnet ikke forstår betydningen av dette utsagnet, forklar: …"når du tenker på tiden fremover, tenker du at den ikke blir bra for deg?"

Påminning

25.
Vi snakket nettopp om at situasjoner, hendelser eller andre ting kan minne deg om det som skjedde i Thailand da flodbølgen kom. (Referer til spørsmål 2_{B4}). Kan du fortelle meg hva det kan være som minner deg om det som skjedde?
Beskriv:.....

Mestring
26.
Når du tenker på det vi har snakket om nå (i PTSD skjemaet) hva er det som kan få deg til å føle deg bedre?

Notater:

VIII DIALOGER

➢ *Hvem har du snakket med om det som skjedde?*

Mor ☐1
Far ☐2
Andre slektninger ☐3
Venner ☐4
Andre ☐5

➢ *Synes du at de forstår hvordan du har det?*

Ja ☐1
Nei ☐2

➢ *Synes du at du har fått snakket nok om det som skjedde?*

Ja ☐1
Nei ☐2

Fortell

➢ *Hvis du skulle trenge (få lyst til) å snakke med noen om det som skjedde, hvem kan du snakke med?*

Mor ☐1
Far ☐2
Andre slektninger ☐3
Venner ☐4
Andre ☐5

IX FAMILIEN *Nå skal jeg spørre deg noen spørsmål om familien din*

	Ja	Nei
1. I vår familie hjelper og støtter vi hverandre	☐	☐
2. I vår familie holder vi ofte følelsene våre for oss selv	☐	☐
3. Det virker ofte som om vi ikke gjør annet enn å slå i hjel tiden hjemme.	☐	☐
4 Vi kan si akkurat hva vi mener om ting når vi er hjemme.	☐	☐
5 Vi legger mye energi i det vi gjør hjemme	☐	☐

6	Det er vanskelig å vise følelser hjemme uten at noen blir lei seg.	☐	☐
7	Vi står sammen i vår familie	☐	☐
8	Vi forteller hverandre om våre problemer	☐	☐
9	Det er sjelden noen melder seg frivillig når noe skal gjøres hjemme	☐	☐
10	Hvis vi ønsker å gjøre noe spontant så setter vi i gang og gjør det	☐	☐
11	I vår familie stiller vi opp for hverandre	☐	☐
12	Når man klager i vår familie blir som regel noen opprørt.	☐	☐
13	I vår familie er det sjelden begeistring for ting som skjer.	☐	☐
14	Vi snakker åpent om penger og regninger i vår familie	☐	☐
15	Vi kommer godt overens med hverandre i vår familie	☐	☐
16	Vi er som regel forsiktige med hva vi sier til hverandre.	☐	☐
17	I vår familie er det mye tid og oppmerksomhet til alle.	☐	☐
18	I vår familie er det mange spontane diskusjoner	☐	☐
19	Fremtiden ser bra ut for vår familie	☐	☐
20	Jeg synes at familien min taklet situasjonen etter det som skjedde i Thailand ganske bra	☐	☐

Forklar..... (NB: evne til å være fleksibel)

XII SYMPTOMER

For barn 11 år og over

(Foreldre fyller ut foreldreskjema for alle aldre)

Her vil vi spørre deg om utsagnene nedenfor stemmer for deg. Vennligst kryss av for hvert utsagn: Stemmer ikke - Stemmer delvis - Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av hvordan du har hatt det de siste 6 månedene.

	Stemmer ikke	Stemmer delvis	Stemmer helt
1. Jeg prøver å være hyggelig mot andre. Jeg bryr meg om hva de føler	☐	☐	☐
2. Jeg er rastløs. Jeg kan ikke være lenge i ro	☐	☐	☐
3. Jeg har ofte hodepine, vondt i magen eller kvalme	☐	☐	☐
4. Jeg deler gjerne med andre (mat, spill, andre ting)	☐	☐	☐
5. Jeg blir ofte sint og har kort lunte	☐	☐	☐
6. Jeg er ofte for meg selv. Jeg gjør som regel ting alene	☐	☐	☐
7. Jeg gjør som regel det jeg får beskjed om	☐	☐	☐
8. Jeg bekymrer meg mye	☐	☐	☐
9. Jeg stiller opp hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
10. Jeg er stadig urolig eller i bevegelse	☐	☐	☐
11. Jeg har en eller flere gode venner	☐	☐	☐
12. Jeg slåss mye. Jeg kan få andre til å gjøre det jeg vil	☐	☐	☐
13. Jeg er ofte lei meg, nedfor eller på gråten	☐	☐	☐
14. Jeg blir som regel likt av andre på min alder	☐	☐	☐
15. Jeg blir lett distrahert, jeg synes det er vanskelig å konsentrere meg	☐	☐	☐
16. Jeg blir nervøs i nye situasjoner. Jeg blir lett usikker	☐	☐	☐
17. Jeg er snill mot de som er yngre enn meg	☐	☐	☐
18. Jeg blir ofte beskyldt for å lyve eller jukse	☐	☐	☐
19. Andre barn eller unge plager eller mobber meg	☐	☐	☐
20. Jeg tilbyr meg ofte å hjelpe andre (foreldre/lærere/andre barn/unge)	☐	☐	☐
21. Jeg tenker meg om før jeg handler (gjør noe)	☐	☐	☐
22. Jeg tar ting som ikke er mine hjemme, på skolen eller andre steder	☐	☐	☐
23. Jeg kommer bedre overens med voksne enn de på min egen alder	☐	☐	☐

24. Jeg er redd for mye. jeg blir lett skremt	☐	☐	☐
25. Jeg fullfører oppgaver. Jeg er god til å konsentrere meg	☐	☐	☐

Har du andre kommentarer eller bekymringer?

Samlet, synes du at du har vansker på ett eller flere av følgende områder:
Med <u>følelser</u>, <u>konsentrasjon</u>, <u>oppførsel</u> eller med å <u>komme overens med andre mennesker</u>?

☐ Nei	☐ Ja - små vansker	☐ Ja - tydelige vansker	☐ Ja - alvorlige vansker

Hvis du har svart "Ja", vennligst svar på følgende spørsmål:

- **Hvor lenge har disse vanskene vært tilstede?**

☐ Mindre enn 1 mnd.	☐ 1-5 mndr.	☐ 6-12 mndr.	☐ Mer enn ett år

- **Forstyrrer eller plager vanskene deg?**

☐ Ikke i det hele tatt	☐ Bare litt	☐ En god del	☐ Mye

- **Virker vanskene inn på livet ditt på noen av disse områdene?**

	Ikke i det hele tatt:	Bare litt:	En god del:	Mye:
Hjemme / i familien	☐	☐	☐	☐
I forhold til venner	☐	☐	☐	☐
Læring på skolen	☐	☐	☐	☐
Fritidsaktiviteter	☐	☐	☐	☐

- **Er vanskene en belastning for de rundt deg (familie, venner, lærere osv.)?**

☐ Ikke i det hele tatt	☐ Bare litt	☐ En god del	☐ Mye

APPENDIX II

Interview guide T2
10 months post-disaster
Parents

Tsunamien – Berørte foreldre og barn
Intervjuguide forelde

Gitt muntlig samtykke til å se på spørreskjema: ja ☐ nei ☐ Dato:

Dato for intervju: _____

Intervjuer:_____

Navnet på informant: _____

Hvis en annen forelder fylte ut spørreskjema skriv navnet: _____

ID-nummer på informant:_____

Fylles ut av barnets forelder selv:

1.1 Opplysningene er gitt av:

Mor ☐1
Far ☐2
Stemor ☐3
Stefar ☐4
Begge ☐5
Andre ☐6

spesifiser:_____

1.2 Barnets/barnas alder (6-18 år som skal intervjues) skriv måned og fødsels år: eks. 09/ 1992

Barn 1 _____/_____ Gutt ☐1 Jente ☐ 2 Barnets navn:

Barn 2 _____/_____ Gutt ☐1 Jente ☐ 2 Barnets navn:

Barn 3 _____/_____ Gutt ☐1 Jente ☐ 2 Barnets navn:

Barn 4_____/_____ Gutt ☐1 Jente ☐ 2 Barnets navn:

1.3 Barnet bor nå:	**Barn 1**	**Barn 2**	**Barn 3**	**Barn 4**
sammen med begge biologiske foreldre	☐1	☐1	☐1	☐1
sammen med biologisk mor	☐2	☐2	☐2	☐2
sammen med biologisk mor og stefar	☐3	☐3	☐3	☐3
sammen med biologisk far	☐4	☐4	☐4	☐4
sammen med biologisk far og stemor	☐5	☐5	☐5	☐5
hos slektning	☐6	☐6	☐6	☐6
hos fosterforeldre	☐7	☐7	☐7	☐7
i institusjon	☐8	☐8	☐8	☐8
ukjent	☐9	☐9	☐9	☐9

(Kan sette flere kryss hvis barnet bor mer enn vanlig besøksordning hos den andre forelderen)

1.4 Barnets søsken (som ikke deltar i studien. Ta også med de som ikke bor hjemme):

Kjønn	Alder (måned/år)
1.4.1	
1.4.2	
1.4.3	
1.4.4	
1.4.5	

1.5 Antall familiemedlemmer i hjemmet som barnet bor sammen med (inkludert barnet selv): ☐☐

1.6 Hvem i familien reiste sammen?

Mor ☐
Far ☐
Stemor ☐
Stefar ☐
Biologiske søsken ☐ hvor mange?_____
Halvsøsken ☐ hvor mange?_____
Besteforeldre ☐
Venner ☐
Andre ☐

BARNETS MOR

1.7 Hva er mors (evt. ditt) fødselsår?

Vennligst sett ett tall i hver rute

☐☐☐☐

Her fylles ut for den som er informanten. Hvis dette ikke er primæromsorgsperson og/eller barnet også bor hos den andre forelderen fylles også ut for dem. For eksempel hvis far er informant fordi han reiste med barnet, men barnet ellers bor hos mor fyll også ut for mor.

1.8 Hva er mors (evt. din) sivilstatus?

Kun ett kryss

Gift/Partner ☐
Samboende ☐
Enslig ☐
Skilt eller separert ☐
Enkemann/ enke ☐

1.9 Hva er mors (evt. din) nåværende arbeidssituasjon?

Du kan sette flere kryss

Arbeider heltid ☐
Arbeider deltid ☐
Studerer ☐
Hjemmearbeidende ☐
Arbeidssøkende ☐
Sykemeldt ☐
Uføretrygdet ☐
Attføring/rehabilitering ☐
Pensjonist ☐
Annet ☐

Hvis annet: Vennligst beskriv her:……
……...
……...
……...

1. 10 Har mors (evt. din) tilhørighet til yrkeslivet endret seg etter tsunamien? Ja ☐1 Nei ☐2

1.11 Har mor (evt. du) i løpet av de siste fire ukene hatt sykefravær på *til sammen*

Kun ett kryss

1-3 dager ☐

4- 13 dager ..... ☐
14 dager eller mer..... ☐
Nei, har ikke hatt sykefravær de
siste fire ukene..... ☐

1.12 Etter Tsunamien, har mor (evt. du) hatt sykefravær på mer enn 14 dager som du mener har sammenheng med katastrofen?

Kun ett kryss

Ja ..... ☐
Nei..... ☐
Vet ikke ..... ☐

Far

1.13 Hva er fars (evt. ditt) fødselsår?

Vennligst sett ett tall i hver rute

☐☐☐☐

1.14 Hva er fars (evt. din) sivilstatus?

Kun ett kryss

Gift/Partner ..... ☐
Samboende ..... ☐
Enslig ..... ☐
Skilt eller separert..... ☐
Enkemann/ enke..... ☐

1.15 Hva er fars (evt. din) nåværende arbeidssituasjon?

Du kan sette flere kryss

Arbeider heltid..... ☐
Arbeider deltid..... ☐
Studerer ..... ☐
Hjemmearbeidende ..... ☐
Arbeidssøkende..... ☐
Sykemeldt ..... ☐
Uføretrygdet..... ☐
Attføring/rehabilitering..... ☐
Pensjonist ..... ☐
Annet ..... ☐

Hvis annet: Vennligst beskriv her:……
……...
……...
……...

1.16 Har fars (evt. din) tilhørighet til yrkeslivet endret seg etter tsunamien? Ja ☐1
Nei ☐2

1.17 Har far (evt. du) i løpet av de siste fire ukerıe hatt sykefravær på *til sammen*

Kun ett kryss

1-3 dager ..... ☐

4- 13 dager ..... ☐
14 dager eller mer..... ☐
Nei, har ikke hatt sykefravær de
siste fire ukene..... ☐

1.18 Etter Tsunamien, har far (evt. du) hatt sykefravær på mer enn 14 dager som du mener har sammenheng med katastrofen?

Kun ett kryss

Ja ..... ☐
Nei..... ☐
Vet ikke ..... ☐

2. EKSPONERINGSSPØRSMÅL

2.1 *Dersom du mistet noen nærstående*: Hvem mistet du?

Dersom du mistet barn, ber vi deg også oppgi barnas fødselsår.

Du kan sette flere kryss

Ektefelle/partner..... ☐
Samboer..... ☐
Kjæreste..... ☐
Egne barn..... ☐
Stebarn/fosterbarn..... ☐
Barnebarn..... ☐
Mor..... ☐
Far..... ☐
Søsken ..... ☐
Besteforeldre..... ☐
Svigerforeldre..... ☐
Venner/kollegaer..... ☐
Andre..... ☐

	Barn 1	Barn 2	Barn 3
Fødselsår:	☐☐☐☐	☐☐☐☐	☐☐☐☐
Fødselsår:	☐☐☐☐	☐☐☐☐	☐☐☐☐
Fødselsår:	☐☐☐☐	☐☐☐☐	☐☐☐☐

3. REISEN OG REISEFØLGET DITT

Mange av dem som oppholdt seg i katastrofe-området ble utsatt for vannmasser som kom i flere omganger. Dette omtales i det følgende i entall som *flodbølgen.*

3.1 Hvilket land oppholdt du deg i da flodbølgen rammet?

Kun ett kryss

Thailand ..... ☐
Sri Lanka..... ☐
Malaysia..... ☐
Sumatra ..... ☐
India ..... ☐
Annet sted..... ☐
Norge..... ☐

3.2 *Hvis du var på reise eller oppholdt deg i land som ble rammet av katastrofen*: Hvor mange nærstående (familie, venner, kjæreste, kollegaer) var du sammen med?

Ett tall i hver rute. Hvis alene, skriv 0

Antallet jeg var sammen med: ☐☐

3.3 *Hvis du var sammen med nærstående*: Hvilke nærstående var du sammen med?

Du kan sette flere kryss

Ektefelle/partner ☐
Samboer ☐
Kjæreste ☐
Egne barn ☐
Stebarn/fosterbarn ☐
Mor ☐
Far ☐
Søsken ☐
Besteforeldre ☐
Svigerforeldre ☐
Barnebarn ☐
Venner/kollegaer ☐
Andre ☐

4. FLODBØLGEN OG KATASTROFEØYEBLIKKET

4.1 Var du i Thailand da flodbølgen rammet, og hvor i landet oppholdt du deg i så fall?

Kun ett kryss

Var ikke i Thailand ☐
Khao Lak ☐
Phi Phi Island ☐
Krabi provins (f.eks. Koh Lanta, Raylley) ☐
Strender på Phuket (f.eks. Patong Kamala, Karon, Kata). ☐
Phuket by ☐
Bankok ☐
Annet sted ☐

Gi gjerne en nøyaktig betegnelse av stedet der du oppholdt deg:

4.2 Da flodbølgen rammet, oppholdt du deg på et sted som ble rammet av flodbølgen?

Kun ett kryss

Ja ☐
Nei ☐

4.3 *Hvis du befant deg på et sted som ble rammet av flodbølgen:* Hvor befant du deg i katastrofeøyeblikket? (Dersom du forflyttet deg under hendelsen, benytt tidspunktet da du ble oppmerksom på faren)**.**

Kun ett kryss

I eller ved båt, langt fra land .....☐
I eller ved båt nær land.....☐
I vannet nær stranden (f.eks.bading,
snorkling, tråkkebåt osv)……..☐
På, eller rett ved stranden .....☐
Lengre vekk fra stranden .....☐
Annet sted.....☐

4.4 Hadde du ansvar for pass av barn da flodbølgen rammet?

Kun ett kryss

Ja, jeg hadde ansvar alene .....☐
Ja, jeg hadde ansvar sammen
med andre voksne .....☐
Nei, haddde ikke ansvar for barn.....☐

4.5 Merket du rystningen av jordskjelvet om morgenen før flodbølgen?

Kun ett kryss

Ja .....☐
Nei.....☐
Usikker/Vet ikke .....☐

4.6 Før flodbølgen kom oppdaget mange at vannet trakk seg tilbake. Oppdaget du at vannet trakk seg tilbake?

Kun ett kryss

Ja ☐ Nei ☐ Usikker/vet ikke ☐

Hvis ja: Hvordan reagerte du?

Ble der jeg var.....☐
Beveget meg utover for å se nærmere
på naturfenomenet.....☐
Beveget meg utover for å
hente eller hjelpe noen .....☐
Beveget meg utover av andre grunner☐
Beveget meg vekk fra stranden.....☐

4.7 Var du selv i fysisk fare på grunn av flodbølgen?

Kun ett kryss

Ja .....☐
Nei.....☐
Vet ikke .....☐

4.8 Måtte du løpe fra flodbølgen eller flykte på annen måte?

Kun ett kryss

Ja .....☐
Nei.....☐

Vet ikke ☐

4.9 Ble du selv tatt av vannmassene, og i så fall på hvilken måte?

Kun ett kryss

Ja, ble fratatt all fysisk kontroll ☐
Ja, men bevarte delvis fysisk kontroll ☐
Ja, ble nesten tatt (f.eks. vannet var like i hælene på meg ☐
Nei, ble ikke tatt av vannmassene ☐

4.10 *Hvis du ble tatt av vannmassene:* Ble du trukket helt under vann?

Kun ett kryss

Ja ☐
Nei ☐
Vet ikke ☐

4.11 Hvor stor mener du faren var for at du skulle omkomme?

Kun ett kryss

Overveldende ☐
Stor ☐
Moderat ☐
Liten ☐
Ingen ☐

4.12 Var noen av <u>dine nærstående</u> (familie, venner, kjæreste, kollegaer) i fysisk fare på grunn av flodbølgen?

Kun ett kryss

Ja ☐
Nei ☐
Vet ikke ☐

4.13 Hvis du var vitne til at noen ble tatt av vannmassene, hvilke/n relasjon/er hadde du til disse personene?

Du kan sette flere kryss

Ektefelle/partner ☐
Samboer ☐
Kjæreste ☐
Egne barn ☐
Stebarn/fosterbarn ☐
Mor ☐
Far ☐
Søsken ☐
Besteforeldre ☐
Barnebarn ☐
Svigerforeldre ☐
Venner/kollegaer ☐
Lokalbefolkning du var knyttet til ☐
Andre turister ☐
Andre ☐

5. ADSKILLELSE OG UVISSHET

5.1 Katastrofepåkjenningene var for mange preget av at de var eller ble atskilt fra sine nærstående (familie, venner, kjæreste, kollegaer) da flodbølgen rammet. Hvilke av de følgende alternativer passer best for din situasjon?

Sett helst ett kryss, men du kan sette flere

Vi var sammen i katastrofeøyeblikket og klarte å holde sammen…… ☐
Vi var sammen i katastrofeøyeblikket, for så å bli adskilt…….. ☐
Vi var adskilt, men jeg var sikker på at mine nærstående var i trygghet….. ☐
Vi var atskilt, og jeg var usikker på om mine nærstående var i fare…..…… ☐
Vi var atskilt, og jeg var sikker på at mine nærstående var i fare…….. ☐
Jeg var alene…….. ☐

5.2 Hvis noen av dine nærstående omkom: Hvor lang tid tok det før du skjønte at de var omkommet? Hvis det var flere av dine nærstående som omkom, kryss av for det dødsfallet der uvissheten varte lengst

Kun ett kryss

Umiddelbart ..... ☐
Opp til 1 døgn ..... ☐
Opp til 3 døgn ..... ☐
Opp til 1 uke..... ☐
Opp til 1 måned ..... ☐
Fortsatt uvisst ..... ☐
Ingen omkom eller er savnet ..... ☐

5.3 *Hvis du ble atskilt fra noen av dine nærstående som du på et senere tidspunkt fikk vite var i live*: Hvor lang tid tok det før du fikk vite at de hadde overlevd? (Hvis du ble atskilt fra flere av dine nærstående, kryss av for den du sist fikk vite var i live)

Kun ett kryss

Opp til en time..... ☐
Opp til 1 døgn ..... ☐
Opp til 3 døgn ..... ☐
Opp til 1 uke..... ☐
Mer enn en uke..... ☐

6. REAKSJONER

Nedenfor følger spørsmål om hvordan du reagerte under- og i tiden umiddelbart etter flodbølgen. Hvis du ikke var på et sted som ble rammet av flodbølgen, ber vi deg svare ut fra det tidspunkt du fikk vite om flodbølgen.

6.1 I hvilken grad opplevde du under- eller umiddelbart etter selve flodbølgen noen av de følgende kjennetegn?

Ett kryss per linje	*Ikke i det hele tatt*	*I liten grad*	*Til-dels*	*I høy grad*	*I meget høy grad*
Jeg fikk en følelse av at det jeg opplevde ikke var virkelig.....	☐	☐	☐	☐	☐
Jeg fikk en følelse av at jeg ikke var meg selv	☐	☐	☐	☐	☐
Jeg ble redd	☐	☐	☐	☐	☐
Jeg fryktet for å dø.....	☐	☐	☐	☐	☐
Jeg fryktet for å bli skadet.....	☐	☐	☐	☐	☐
Jeg fryktet for at nærstående skulle dø	☐	☐	☐	☐	☐
Jeg følte meg hjelpeløs.....	☐	☐	☐	☐	☐
Jeg ble forvirret	☐	☐	☐	☐	☐
Jeg mistet troen på at dette skulle gå bra.....	☐	☐	☐	☐	☐
Jeg ble sint.....	☐	☐	☐	☐	☐

Jeg følte skam	☐	☐	☐	☐	☐
Jeg følte skyld	☐	☐	☐	☐	☐
Jeg ble trist	☐	☐	☐	☐	☐
Jeg følte meg apatisk	☐	☐	☐	☐	☐
Jeg følte avsky	☐	☐	☐	☐	☐
Jeg fikk en følelse av nummenhet eller fjernhet	☐	☐	☐	☐	☐
Jeg var ikke oppmerksom på mine omgivelser (var i en tåketilstand)	☐	☐	☐	☐	☐
Jeg ble fysisk utmattet	☐	☐	☐	☐	☐
Jeg husket ikke det som hadde skjedd, eller deler av det	☐	☐	☐	☐	☐

6.2 *Hvis du var i fare:* Da den umiddelbare faren var over for ditt vedkommende, i hvilken grad opplevde du i så fall noen form for lettelse?

Kun ett kryss

- Ikke i det hele tatt ☐
- I liten grad ☐
- Til dels ☐
- I høy grad ☐
- I meget høy grad ☐

6.3 Opplevde du noen av følgende belastninger etter at flodbølgen hadde trukket seg tilbake, og i så fall hvor belastende synes du dette var?

Ett kryss for hver linje	Nei/ ikke opplevd	Ja, ikke/ lite belastende	Ja, moderat belastende	Ja, svært belastende
Var du vitne til noe av det følgende?				
Mennesker som lette etter sine nærmeste?	☐	☐	☐	☐
Forlatte barn?	☐	☐	☐	☐
Overlevende med alvorlige kroppsskader?	☐	☐	☐	☐
Omkomne?	☐	☐	☐	☐
Mengder av omkomne?	☐	☐	☐	☐
Uvisshet/Usikkerhet				
Var du usikker på skjebnen til noen av dine nærstående?	☐	☐	☐	☐
Hørte du rykter om eller var du redd for at det skulle komme nye vannmasser?	☐	☐	☐	☐
Var du usikker på om du skulle bli hvor du var eller forflytte deg?	☐	☐	☐	☐
Manglet du informasjon?	☐	☐	☐	☐
Manglet du mulighet til å få varslet hjem?	☐	☐	☐	☐
Fysiske påkjenninger				
Var du selv skadet og trengte hjelp?	☐	☐	☐	☐
Var en eller flere av dine nærstående skadet og trengte hjelp?	☐	☐	☐	☐
Var det andre skadede i din nærhet som trengte hjelp?	☐	☐	☐	☐
Manglet du nødvendige medisiner eller legebehandling?	☐	☐	☐	☐
Manglet du mat eller vann?	☐	☐	☐	☐
Manglet du klær og/eller annet utstyr?	☐	☐	☐	☐
Var du redd for giftige slanger, mørket, brann el.l.?	☐	☐	☐	☐
Andre forhold				
At du måtte ta vare på barn?	☐	☐	☐	☐
Hadde du problemer med videre evakuering (transportproblemer)?	☐	☐	☐	☐
Hadde du tapt viktige eiendeler (briller, medisiner og lignende?	☐	☐	☐	☐

Annet? ..... ☐ ☐ ☐ ☐

6.4 Fikk du noen fysiske skader, og hvor alvorlige var i så fall skadene?

Kun ett kryss

Ja, alvorlige skader..... ☐
Ja, moderate skader..... ☐
Ja, lette skader ..... ☐
Nei, ingen skade..... ☐

7.0 Hvilken dato ankom du Norge?

Ett tall i hver rute

Dag ☐☐ Måned ☐☐

Intervju

2. Nå vil jeg stille deg noen spørsmål om det som skjedde 2 juledag og tiden etter

2.1 Spørsmål om eksponering og opplevelse:

- Fortell meg om hva dere gjorde før flodbølgen kom.
- Fortell meg om det som skjedde da flodbølgen kom. (hvis det ikke har fremkommet)
- Hvordan reagerte du? (hvis det ikke har fremkommet)
- Hva var det verste som skjedde?
    - *(Be om utdypning dersom de ikke sier noe om hva de gjorde, tenkte, følte)*
- Tiden etter at du kom hjem – hvordan har det vært?
- Tenkte du noen gang at du skulle gjort noe annerledes under eller rett etter katastrofen?

2.2 Spørsmål om barnet – Barn 1 (samme som på side 1→ : gutt ☐ jente ☐ født: _____)

- Hvordan vil du beskrive …… (barnets navn) reaksjoner under og etter bølgen?
- Hvordan vil du beskrive hvordan ……..(barnets navn) har hatt det i tiden etter tsunamien?
- Hvordan synes du skolen har håndtert situasjonen etter tsunamien?

2.2 Spørsmål om barnet - Barn 2 (samme som på side 1→ : gutt ☐ jente ☐ født: _____)

- Hvordan vil du beskrive…… (barnets navn) reaksjoner under og etter bølgen?
- Hvordan vil du beskrive hvordan…….(barnets navn) har hatt det i tiden etter tsunamien?
- Hvordan synes du skolen har håndtert situasjonen etter tsunamien?

2.2 Spørsmål om barnet - Barn 3 (samme som på side 1→ : gutt ☐ jente ☐ født: _____)

- Hvordan vil du beskrive…… (barnets navn) reaksjoner under og etter bølgen?
- Hvordan vil du beskrive hvordan…… (barnets navn) har hatt det i tiden etter tsunamien?
- Hvordan synes du skolen har håndtert situasjonen etter tsunamien?

2.2 Spørsmål om barnet - Barn 4 (samme som på side 1→ : gutt ☐ jente ☐ født: _____)

- Hvordan vil du beskrive…….. (barnets navn) reaksjoner under og etter bølgen?
- Hvordan vil du beskrive hvordan…… (barnets navn) har hatt det i tiden etter tsunamien?
- Hvordan synes du skolen har håndtert situasjonen etter tsunamien?

3.1 Spørsmål om familien og hjelpebehov:

- I tiden etter at dere kom hjem, hva tenker du at barnet/barna dine trengte? (Også om forskjellige barn trengte forskjellige ting.)

- Hva gjorde du/dere i forhold til det?
    - *(Mulige temaer: Snakke om det, Komme i gang, Daglig rutine, God søvn)*

- Hvordan har katastrofen virket inn på din familie?
    - *(Mulige temaer: Daglig rutine, Samhold, Fleksibilitet, Parforholdet)*

- I tiden etter tsunamien har du tenkt at det var ting du burde gjort i forhold til familien som du ikke gjorde, eller ikke fikk til å gjøre?
  Beskriv:

- Alt i alt hvordan synes du familien har taklet situasjonen etter det som skjedde i Thailand.
  Beskriv:

- Hadde du eller noen i familien behov for hjelp etterpå og hva synes du om hjelpen du evt. fikk?

4.1 De neste spørsmålene dreier seg om andre hendelser i ditt liv.

Har du opplevd noe av det følgende?

Ett kryss per linje

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…..……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

Har barnets andre forelder opplevd noe av det følgende?

Ett kryss per linje

Fylles bare ut hvis barnet bor hos denne personen mer enn vanlig samværsordning.

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…..……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

KAN VI EVT. KONTAKTE DEG OM ET ÅR Ja ☐ Nei ☐

(hvis det blir en oppfølgingsstudie)

Be de fylle ut 4 skjemaer
1 om familien, 1 om hvordan barnet har det og 2 om hvordan de selv har det.

1 Om familien

Nedenfor følger en del spørsmål om familier. Svar så godt du kan om hvordan det stort sett er i din familie.

		Ja	Nei
1.	I vår familie hjelper og støtter vi hverandre.	☐	☐
2.	I vår familie holder vi ofte følelsene våre for oss selv.	☐	☐
3.	Det virker ofte som om vi ikke gjør annet enn å slå i hjel tiden hjemme.	☐	☐
4	Vi kan si akkurat hva vi mener om ting når vi er hjemme.	☐	☐
5	Vi legger mye energi i det vi gjør hjemme.	☐	☐
6	Det er vanskelig å uttrykke følelser hjemme uten at noen blir lei seg.	☐	☐
7	Vi føler et sterkt samhold i vår familie.	☐	☐
8	Vi forteller hverandre om våre problemer.	☐	☐
9	Det er sjelden noen melder seg frivillig når noe skal gjøres hjemme.	☐	☐
10	Hvis vi ønsker å gjøre noe spontant så setter vi i gang og gjør det.	☐	☐
11	I vår familie stiller vi opp for hverandre.	☐	☐
12	Når man klager i vår familie blir som regel noen opprørt.	☐	☐
13	I vår familie er det sjelden vi er begeistret for ting.	☐	☐
14	Vi snakker åpent om penger og regninger i vår familie.	☐	☐
15	Vi kommer godt overens med hverandre i vår familie.	☐	☐
16	Vi er som regel forsiktige med hva vi sier til hverandre.	☐	☐
17	I vår familie er det mye tid og oppmerksomhet til alle.	☐	☐
18	I vår familie er det mange spontane diskusjoner.	☐	☐
19	Fremtiden ser bra ut for vår familie.	☐	☐

2. Om barna

Barn 1

Sterke og svake sider (SDQ-Nor) F4-16

Vennligst kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av barnets oppførsel de siste 6 månedene.

Barnets navn ..... Gutt / Jente

Fødselsdato .....

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	☐	☐	☐
Rastløs, overaktiv, kan ikke være lenge i ro	☐	☐	☐
Klager ofte over hodepine, vondt i magen eller kvalme	☐	☐	☐
Deler gjerne med andre barn (godter, leker, andre ting)	☐	☐	☐
Har ofte raserianfall eller dårlig humør	☐	☐	☐
Ganske ensom, leker ofte alene	☐	☐	☐
Som regel lydig, gjør vanligvis det voksne ber om	☐	☐	☐
Mange bekymringer, virker ofte bekymret	☐	☐	☐
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
Stadig urolig eller i bevegelse	☐	☐	☐
Har minst en god venn	☐	☐	☐
Slåss ofte med andre barn eller mobber dem	☐	☐	☐
Ofte lei seg, nedfor eller på gråten	☐	☐	☐
Vanligvis likt av andre barn	☐	☐	☐
Lett avledet, mister lett konsentrasjonen	☐	☐	☐
Nervøs eller klengete i nye situasjoner, lett utrygg	☐	☐	☐
Snill mot yngre barn	☐	☐	☐
Lyver eller jukser ofte	☐	☐	☐
Plaget eller mobbet av andre barn	☐	☐	☐
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	☐	☐	☐
Tenker seg om før hun / han handler (gjør noe)	☐	☐	☐
Stjeler hjemme, på skolen eller andre steder	☐	☐	☐
Kommer bedre overens med voksne enn med barn	☐	☐	☐
Redd for mye, lett skremt	☐	☐	☐
Fullfører oppgaver, god konsentrasjonsevne	☐	☐	☐

Har du andre kommentarer eller bekymringer ?

Samlet, synes du at barnet ditt har vansker på ett eller flere av følgende områder:
med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker ?

Nei	Ja - små vansker	Ja - tydelige vansker	Ja - alvorlige vansker
☐	☐	☐	☐

Hvis du har svart "Ja", vennligst svar på følgende spørsmål:

- Hvor lenge har disse vanskene vært tilstede ?

Mindre enn en måned	1-5 måneder	6-12 måneder	Mer enn ett år
☐	☐	☐	☐

- Blir barnet selv forstyrret eller plaget av vanskene ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

- Påvirker vanskene barnets dagligliv på noen av de følgende områder ?

	Ikke i det hele tatt	Bare litt	En god del	Mye
HJEMME / I FAMILIEN	☐	☐	☐	☐
FORHOLD TIL VENNER	☐	☐	☐	☐
LÆRING PÅ SKOLEN	☐	☐	☐	☐
FRITIDSAKTIVITETER	☐	☐	☐	☐

- Er vanskene en belastning for deg eller familien som helhet ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

Underskrift ..... Dato .....

Mor / Far / Andre (vennligst beskriv)

Har barnet opplevd noe av det følgende?
Ett kryss per linje

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…….……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

Var du eller andre som kjenner barnet godt vært bekymret for barnets utvikling, atferd, psykiske eller sosiale fungering før tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Var barnet henvist til pedagogisk-psykologisk (PPT), barnepsykiatrisk institusjon eller lege pga disse bekymringene? Ja ☐1
Nei ☐2

Beskriv:

Har barnet blitt henvist til eller hatt kontakt med pedagogisk-psykologisk tjeneste (PPT), barnepsykiatrisk klinikk eller lege etter tsunamien? Ja ☐1
Nei ☐2

Beskriv:

2. Om barna

Barn 2

Sterke og svake sider (SDQ-Nor) F4-16

Vennligst kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av barnets oppførsel de siste 6 månedene.

Barnets navn ..... Gutt / Jente

Fødselsdato .....

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	☐	☐	☐
Rastløs, overaktiv, kan ikke være lenge i ro	☐	☐	☐
Klager ofte over hodepine, vondt i magen eller kvalme	☐	☐	☐
Deler gjerne med andre barn (godter, leker, andre ting)	☐	☐	☐
Har ofte raserianfall eller dårlig humør	☐	☐	☐
Ganske ensom, leker ofte alene	☐	☐	☐
Som regel lydig, gjør vanligvis det voksne ber om	☐	☐	☐
Mange bekymringer, virker ofte bekymret	☐	☐	☐
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
Stadig urolig eller i bevegelse	☐	☐	☐
Har minst en god venn	☐	☐	☐
Slåss ofte med andre barn eller mobber dem	☐	☐	☐
Ofte lei seg, nedfor eller på gråten	☐	☐	☐
Vanligvis likt av andre barn	☐	☐	☐
Lett avledet, mister lett konsentrasjonen	☐	☐	☐
Nervøs eller klengete i nye situasjoner, lett utrygg	☐	☐	☐
Snill mot yngre barn	☐	☐	☐
Lyver eller jukser ofte	☐	☐	☐
Plaget eller mobbet av andre barn	☐	☐	☐
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	☐	☐	☐
Tenker seg om før hun / han handler (gjør noe)	☐	☐	☐
Stjeler hjemme, på skolen eller andre steder	☐	☐	☐
Kommer bedre overens med voksne enn med barn	☐	☐	☐
Redd for mye, lett skremt	☐	☐	☐
Fullfører oppgaver, god konsentrasjonsevne	☐	☐	☐

Har du andre kommentarer eller bekymringer ?

Samlet, synes du at barnet ditt har vansker på ett eller flere av følgende områder:
med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker ?

Nei	Ja - små vansker	Ja - tydelige vansker	Ja - alvorlige vansker
☐	☐	☐	☐

Hvis du har svart "Ja", vennligst svar på følgende spørsmål:

- Hvor lenge har disse vanskene vært tilstede ?

Mindre enn en måned	1-5 måneder	6-12 måneder	Mer enn ett år
☐	☐	☐	☐

- Blir barnet selv forstyrret eller plaget av vanskene ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

- Påvirker vanskene barnets dagligliv på noen av de følgende områder ?

	Ikke i det hele tatt	Bare litt	En god del	Mye
HJEMME / I FAMILIEN	☐	☐	☐	☐
FORHOLD TIL VENNER	☐	☐	☐	☐
LÆRING PÅ SKOLEN	☐	☐	☐	☐
FRITIDSAKTIVITETER	☐	☐	☐	☐

- Er vanskene en belastning for deg eller familien som helhet ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

Underskrift ..... Dato .....

Mor / Far / Andre (vennligst beskriv)

Har barnet opplevd noe av det følgende?
Ett kryss per linje

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…….……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

Var du eller andre som kjenner barnet godt vært bekymret for barnets utvikling, atferd, psykiske eller sosiale fungering før tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Var barnet henvist til pedagogisk-psykologisk (PPT), barnepsykiatrisk institusjon eller lege pga disse bekymringene? Ja ☐1
Nei ☐2

Beskriv:

Har barnet blitt henvist til eller hatt kontakt med pedagogisk-psykologisk tjeneste (PPT), barnepsykiatrisk klinikk eller lege etter tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Barn 3

Sterke og svake sider (SDQ-Nor)

F4-16

Vennligst kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av barnets oppførsel de siste 6 månedene.

Barnets navn ..... Gutt / Jente

Fødselsdato .....

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	☐	☐	☐
Rastløs, overaktiv, kan ikke være lenge i ro	☐	☐	☐
Klager ofte over hodepine, vondt i magen eller kvalme	☐	☐	☐
Deler gjerne med andre barn (godter, leker, andre ting)	☐	☐	☐
Har ofte raserianfall eller dårlig humør	☐	☐	☐
Ganske ensom, leker ofte alene	☐	☐	☐
Som regel lydig, gjør vanligvis det voksne ber om	☐	☐	☐
Mange bekymringer, virker ofte bekymret	☐	☐	☐
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
Stadig urolig eller i bevegelse	☐	☐	☐
Har minst en god venn	☐	☐	☐
Slåss ofte med andre barn eller mobber dem	☐	☐	☐
Ofte lei seg, nedfor eller på gråten	☐	☐	☐
Vanligvis likt av andre barn	☐	☐	☐
Lett avledet, mister lett konsentrasjonen	☐	☐	☐
Nervøs eller klengete i nye situasjoner, lett utrygg	☐	☐	☐
Snill mot yngre barn	☐	☐	☐
Lyver eller jukser ofte	☐	☐	☐
Plaget eller mobbet av andre barn	☐	☐	☐
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	☐	☐	☐
Tenker seg om før hun / han handler (gjør noe)	☐	☐	☐
Stjeler hjemme, på skolen eller andre steder	☐	☐	☐
Kommer bedre overens med voksne enn med barn	☐	☐	☐
Redd for mye, lett skremt	☐	☐	☐
Fullfører oppgaver, god konsentrasjonsevne	☐	☐	☐

Har du andre kommentarer eller bekymringer ?

Samlet, synes du at barnet ditt har vansker på ett eller flere av følgende områder:
med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker ?

Nei	Ja - små vansker	Ja - tydelige vansker	Ja - alvorlige vansker
☐	☐	☐	☐

Hvis du har svart "Ja", vennligst svar på følgende spørsmål:

- Hvor lenge har disse vanskene vært tilstede ?

Mindre enn en måned	1-5 måneder	6-12 måneder	Mer enn ett år
☐	☐	☐	☐

- Blir barnet selv forstyrret eller plaget av vanskene ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

- Påvirker vanskene barnets dagligliv på noen av de følgende områder ?

	Ikke i det hele tatt	Bare litt	En god del	Mye
HJEMME / I FAMILIEN	☐	☐	☐	☐
FORHOLD TIL VENNER	☐	☐	☐	☐
LÆRING PÅ SKOLEN	☐	☐	☐	☐
FRITIDSAKTIVITETER	☐	☐	☐	☐

- Er vanskene en belastning for deg eller familien som helhet ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

Underskrift ..... Dato .....

Mor / Far / Andre (vennligst beskriv)

Har barnet opplevd noe av det følgende?
Ett kryss per linje

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…….……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

Var du eller andre som kjenner barnet godt vært bekymret for barnets utvikling, atferd, psykiske eller sosiale fungering før tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Var barnet henvist til pedagogisk-psykologisk (PPT), barnepsykiatrisk institusjon eller lege pga disse bekymringene? Ja ☐1
Nei ☐2

Beskriv:

Har barnet blitt henvist til eller hatt kontakt med pedagogisk-psykologisk tjeneste (PPT), barnepsykiatrisk klinikk eller lege etter tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Barn 4

Sterke og svake sider (SDQ-Nor) F4-16

Vennligst kryss av for hvert utsagn: Stemmer ikke, Stemmer delvis eller Stemmer helt. Prøv å svare på alt selv om du ikke er helt sikker eller synes utsagnet virker rart. Svar på grunnlag av barnets oppførsel de siste 6 månedene.

Barnets navn ..... Gutt / Jente

Fødselsdato .....

	Stemmer ikke	Stemmer delvis	Stemmer helt
Omtenksom, tar hensyn til andre menneskers følelser	☐	☐	☐
Rastløs, overaktiv, kan ikke være lenge i ro	☐	☐	☐
Klager ofte over hodepine, vondt i magen eller kvalme	☐	☐	☐
Deler gjerne med andre barn (godter, leker, andre ting)	☐	☐	☐
Har ofte raserianfall eller dårlig humør	☐	☐	☐
Ganske ensom, leker ofte alene	☐	☐	☐
Som regel lydig, gjør vanligvis det voksne ber om	☐	☐	☐
Mange bekymringer, virker ofte bekymret	☐	☐	☐
Hjelpsom hvis noen er såret, lei seg eller føler seg dårlig	☐	☐	☐
Stadig urolig eller i bevegelse	☐	☐	☐
Har minst en god venn	☐	☐	☐
Slåss ofte med andre barn eller mobber dem	☐	☐	☐
Ofte lei seg, nedfor eller på gråten	☐	☐	☐
Vanligvis likt av andre barn	☐	☐	☐
Lett avledet, mister lett konsentrasjonen	☐	☐	☐
Nervøs eller klengete i nye situasjoner, lett utrygg	☐	☐	☐
Snill mot yngre barn	☐	☐	☐
Lyver eller jukser ofte	☐	☐	☐
Plaget eller mobbet av andre barn	☐	☐	☐
Tilbyr seg ofte å hjelpe andre (foreldre, lærere, andre barn)	☐	☐	☐
Tenker seg om før hun / han handler (gjør noe)	☐	☐	☐
Stjeler hjemme, på skolen eller andre steder	☐	☐	☐
Kommer bedre overens med voksne enn med barn	☐	☐	☐
Redd for mye, lett skremt	☐	☐	☐
Fullfører oppgaver, god konsentrasjonsevne	☐	☐	☐

Har du andre kommentarer eller bekymringer ?

Samlet, synes du at barnet ditt har vansker på ett eller flere av følgende områder:
med følelser, konsentrasjon, oppførsel eller med å komme overens med andre mennesker ?

Nei	Ja - små vansker	Ja - tydelige vansker	Ja - alvorlige vansker
☐	☐	☐	☐

Hvis du har svart "Ja", vennligst svar på følgende spørsmål:

- Hvor lenge har disse vanskene vært tilstede ?

Mindre enn en måned	1-5 måneder	6-12 måneder	Mer enn ett år
☐	☐	☐	☐

- Blir barnet selv forstyrret eller plaget av vanskene ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

- Påvirker vanskene barnets dagligliv på noen av de følgende områder ?

	Ikke i det hele tatt	Bare litt	En god del	Mye
HJEMME / I FAMILIEN	☐	☐	☐	☐
FORHOLD TIL VENNER	☐	☐	☐	☐
LÆRING PÅ SKOLEN	☐	☐	☐	☐
FRITIDSAKTIVITETER	☐	☐	☐	☐

- Er vanskene en belastning for deg eller familien som helhet ?

Ikke i det hele tatt	Bare litt	En god del	Mye
☐	☐	☐	☐

Underskrift ..... Dato .....

Mor / Far / Andre (vennligst beskriv)

Har barnet opplevd noe av det følgende?
Ett kryss per linje

	Nei	Ja, *før* Tsunamien	Ja, *etter* Tsunamien
Plutselig død i nær familie……	☐	☐	☐
Egen alvorlig fysisk eller psykisk sykdom……	☐	☐	☐
Alvorlig fysisk eller psykisk sykdom hos en av dine nærmeste…	☐	☐	☐
Egen skilsmisse med store konflikter…….……	☐	☐	☐
Alvorlig ulykke…. ……..……	☐	☐	☐
Vold eller vært vitne til vold……	☐	☐	☐
Annet ……	☐	☐	☐

Var du eller andre som kjenner barnet godt vært bekymret for barnets utvikling, atferd, psykiske eller sosiale fungering før tsunamien? Ja ☐1
Nei ☐2

Beskriv:

Var barnet henvist til pedagogisk-psykologisk (PPT), barnepsykiatrisk institusjon eller lege pga disse bekymringene? Ja ☐1
Nei ☐2

Beskriv:

Har barnet blitt henvist til eller hatt kontakt med pedagogisk-psykologisk tjeneste (PPT), barnepsykiatrisk klinikk eller lege etter tsunamien? Ja ☐1
Nei ☐2

Beskriv:

3 Reaksjoner og plager

Nå følger noen spørsmål om din nåværende helse og trivsel. Enkelte spørsmål vil bli gjentatt. Grunnen er at studien anvender ulike standardiserte symptomlister for på best mulig måte å kunne registrere mulige plager hos de som opplevde tsunamien.

Vi ber deg kysse av for det svaret du mener gir den beste beskrivelsen av deg selv nå, eller gjennom *de siste par ukene*. Uttrykket "vanlig" henviser til hvordan du hadde det før katastrofen. Det er viktig at du besvarer alle spørsmålene.

Ett kryss for hver linje

Har du i løpet av de siste par ukene…

1- kjent deg frisk og ved god helse?……	Bedre enn vanlig ☐	Samme som vanlig ☐	Mindre enn vanlig ☐	Mye mindre enn vanlig ☐
2- kjent behov for noe som kan kvikke deg opp?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
3- følt deg utkjørt og utenfor?.	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
4- følt deg syk?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
5-hatt hodepine?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
6- kjent deg tung eller hatt følelse av trykk i hodet?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
7- hatt tilløp til hetetokter eller kaldsvette?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
8– ligget våken på grunn av bekymringer?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
9- hatt lett for å våkne etter at du har sovnet?…….	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
10. - vært i stand til å holde deg engasjert og i virksomhet?……	Bedre enn vanlig ☐	Samme som vanlig ☐	Mindre enn vanlig ☐	Mye mindre enn vanlig ☐
11. – trengt tid på å få tingene unna?……	Raskere enn vanlig ☐	Samme som vanlig ☐	Lenger enn vanlig ☐	Mye lenger enn vanlig ☐
12. - følt at du i det store og hele greier deg bra?……..	Bedre enn vanlig ☐	Omtrent som vanlig ☐	Mindre bra enn vanlig ☐	Mye mindre bra ☐
13. -vært fornøyd med den måten du fungerer på?……..	Mer Fornøyd ☐	Omtrent som vanlig ☐	Mindre fornøyd enn vanlig ☐	Mye mindre fornøyd ☐
14. - følt at du tar del i ting på en nyttig måte?……	Mer enn Vanlig ☐	Som Vanlig ☐	Mindre brukbart enn vanlig ☐	Mye mindre brukbart ☐
15. - følt at du er i stand til å ta bestemmelser?……..	Mer enn Vanlig ☐	Som Vanlig ☐	Mindre enn vanlig ☐	Mye mindre enn vanlig ☐
16. - følt deg stadig under press?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐

17. - vært i stand til å glede deg over dine daglige gjøremål?…….	Mer enn Vanlig ☐	Samme som vanlig ☐	Mindre enn vanlig ☐	Mye mindre enn vanlig ☐
18. - følt deg irritabel, i dårlig humør?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
19. - blitt engstelig og panisk uten grunn?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
20. – synes at alt vokser over hodet på deg?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
21. – tenkt på deg selv som en verdiløs person?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
22. - følt at livet er helt håpløst?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
23. – stadig følt deg nervøs og anspent/oppjaget?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
24. - følt at livet ikke er verdt å leve?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
25. – tenkt på muligheten av å gjøre slutt på livet?…….	Bestemt, nei ☐	Jeg tror ikke det ☐	Av og til ☐	Ja, ofte ☐
26. - følt at du til tider ikke var i stand til å gjøre det minste fordi nervene dine var i ulage?……..	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer enn vanlig ☐	Mye mer enn vanlig ☐
27. – ønsket at du var død, borte fra alt sammen?……	Ikke i det hele tatt ☐	Ikke mer enn vanlig ☐	Heller mer en vanlig ☐	Mye mer enn vanlig ☐
28. - hatt det slik at tanken om å ta ditt eget liv stadig har dukket opp i ditt sinn?….	Bestemt, nei ☐	Jeg tror ikke det ☐	Av og til ☐	Ja, ofte ☐

4. Nedenfor finner du en liste over noen reaksjoner som ikke er uvanlige blant personer som har opplevd katastrofer. Vi ber deg krysse av for det svaret du mener gir den beste beskrivelsen av hvordan du har hatt det *de siste to ukene*.

Ett kryss per linje

	ikke i det hele tatt	Sjelden	Av og til	Ofte
1. En hver påminnelse (om katastrofen) har vekket følelser om det som skjedde	☐	☐	☐	☐
2. Jeg har sovet urolig og har våknet om natten	☐	☐	☐	☐
3. Ting jeg så og hørte, kunne plutselig bringe frem minner om katastrofen	☐	☐	☐	☐
4. Jeg har følt meg irritabel og sint	☐	☐	☐	☐
5. Jeg har ikke tillatt meg å bli følelsesmessig berørt når jeg tenker på katastrofen eller blir minnet på den	☐	☐	☐	☐
6. Tanker om katastrofen har trengt seg på også når jeg ikke har villet	☐	☐	☐	☐
7. Jeg har kjent det som uvirkelig, eller som om det ikke har hendt	☐	☐	☐	☐
8. Jeg har holdt meg unna ting eller situasjoner som kan minne meg om katastrofen	☐	☐	☐	☐
9. Bilder fra katastrofen har plutselig dukket opp i hodet mitt	☐	☐	☐	☐
10. Jeg har vært urolig og skvetten	☐	☐	☐	☐
11. Jeg har forsøkt å ikke tenke på det	☐	☐	☐	☐
12. Jeg har vært klar over at jeg enda har mange følelser om katastrofen, men jeg har ikke sluppet dem til	☐	☐	☐	☐
13. Mine følelser knyttet til katastrofen har nærmest vært lammet	☐	☐	☐	☐
14. Jeg har tatt meg i å handle eller føle det som da katastrofen skjedde	☐	☐	☐	☐
15. Jeg har hatt vanskelig for å fall i søvn på grunn av tanker eller bilder fra katastrofen	☐	☐	☐	☐
16. Jeg har hatt perioder med sterke følelser om katastrofen	☐	☐	☐	☐
17. Jeg har forsøkt å slette det som skjedde fra hukommelsen	☐	☐	☐	☐
18. Jeg har hatt konsentrasjonsproblemer	☐	☐	☐	☐
19. Påminnelser om det som skjedde har gitt meg fysiske reaksjoner, for eksempel svetting, pusteproblemer, kvalme eller hjertebank	☐	☐	☐	☐

20. Jeg har hatt drømmer om katastrofen	☐	☐	☐	☐
21. Jeg har kjent meg på vakt (vaktsom).....	☐	☐	☐	☐
22. Jeg har forsøkt å la være å snakke om katastrofen	☐	☐	☐	☐

APPENDIX III

Posttraumatic growth inventory for children-Revised

Posttraumatic growth inventory for adults

PTGI-C –June, 2006 revision

Kilmer, R.P., Gil-Rivas, V., Tedeschi, R.G., Cann, A., Calhoun, L.G., Buchanan, T., & Taku, K[1]
Norsk oversettelse etter tillatelse fra forfatterne: Gertrud S. Hafstad, Nasjonalt kunnskapssenter om vold og traumatisk stress[2], 2008

Noen ting forandrer seg over tid, mens noen ting ikke gjør det. For eksempel så vil noen ting i livet ditt være annerledes nå enn de var før (*hendelsen*), mens noen ting vil være de samme.

Jeg vil gjerne at du forteller meg hva som har forandret seg for deg etter (*hendelsen)*.

_____

_____

_____

Noen barn, som deg, forteller at de på noen måter er annerledes nå enn de var før *(hendelsen).* Det kan være hvordan de har det og hvordan de føler og tenker. Hva med deg? På hvilke måter har du forandret deg?

_____

_____

_____

_____

La oss se på noen mer konkrete spørsmål om forandringer…
Som vi snakket om, så har noen barn lagt merke til at de er annerledes på ulike måter nå, i forhold til hvordan de var før *(hendelsen*). Alle er forskjellige, så noen barn synes ikke at de har forandret seg, noen synes de har forandret seg mye, mens noen er litt sånn midt i mellom. Det fins ingen riktige eller gale svar, og det er heller ikke noen riktige eller gale måter å være på.

Jeg vil at du skal tenke på hvordan du hadde det før *(hendelsen)*, og hvordan du har det nå. Jeg skal spørre deg noen spørsmål om noen ting som kan ha forandret seg fra før *(hendelsen)* og til nå. Fortell meg hvor mye du har forandret deg. Det er helt i orden å si at det ikke har forandret seg noe, og det er helt i orden å si at det har forandret seg. Fortell meg hvilket svar som passer best for deg.. **[VIS RESPONSKORTET TIL BARNET]**

For å komme litt inn i det, la oss prøve noen spørsmål for å øve oss litt.

Det første er: Jeg er en gutt/jente.

Hva ville du svare her? Har det forandret seg siden før (*hendelsen*)? Ja eller nei. Ingen forandring? Litt forandring? Forandret seg en del? Forandret seg veldig mye? Riktig – om du er gutt eller jente har ikke forandret seg siden da, så det riktige svaret vil være "nei" – "ingen forandring".

Neste: Jeg er større nå enn jeg var før.

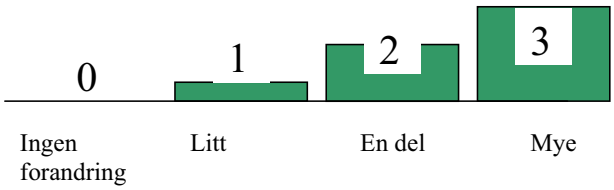
PTGI-C –June, 2006 revision

Kilmer, R.P., Gil-Rivas, V., Tedeschi, R.G., Cann, A., Calhoun, L.G., Buchanan, T., & Taku, K[1]
Norsk oversettelse etter tillatelse fra forfatterne: Gertrud S. Hafstad, Nasjonalt kunnskapssenter om vold og traumatisk stress[2], 2008

Så, har det forandret seg? Ja eller nei? Hvis det har forandret seg, hvor mye har det forandret seg siden (*ulykken, sykdommen, hendelsen*)? Tenk tilbake på hvor høy du var før (*ulykken, sykdommen, hendelsen*)… Er du høyere nå enn du var da?

Hva vil du si? Svar "Ingen forandring" dersom du er akkurat like høy nå som du var da, "litt forandring" dersom du er litt høyere enn du var da, "forandret seg en del" dersom du har vokst mer enn bare litt, og "forandre seg mye" dersom du er mye høyere nå enn du var før (*ulykken, sykdommen, hendelsen*).

Har du noen spørsmål om hvordan dette virker nå? Ok, la oss nå gå videre til de andre spørsmålene. Nå øver vi ikke lenger.



For hvert av spørsmålene, vil jeg at du skal fortelle meg hvor mye du har forandret deg etter *ulykken, sykdommen, hendelsen*).

Ingen forandring, litt, en del, eller mye **[DEMONSTRER FORSKJELLENE MED HÅNDBEVEGELSER…]**

PTGI-C –June, 2006 revision

Kilmer, R.P., Gil-Rivas, V., Tedeschi, R.G., Cann, A., Calhoun, L.G., Buchanan, T., & Taku, K[1]
Norsk oversettelse etter tillatelse fra forfatterne: Gertrud S. Hafstad, Nasjonalt kunnskapssenter om vold og traumatisk stress[2], 2008

	Ingen forandr	Litt	En del	Mye	Vet ikke
1. Jeg har lært hvor snille og hjelpesomme mennesker kan være.	**0**	**1**	**2**	**3**	**-8**
2. Jeg har blitt flinkere til å takle problemer.	**0**	**1**	**2**	**3**	**-8**
3. Jeg vet bedre hva som er viktig for meg.	**0**	**1**	**2**	**3**	**-8**
4. Jeg forstår Gud bedre enn jeg gjorde før.	**0**	**1**	**2**	**3**	**-8**
5. Jeg føler meg nærmere andre mennesker (familien og vennene mine) enn jeg gjorde før.	**0**	**1**	**2**	**3**	**-8**
6. Jeg setter mer pris på hver dag.	**0**	**1**	**2**	**3**	**-8**
7. Jeg har fått sjansen til å gjøre ting som jeg ikke hadde muligheten til før	**0**	**1**	**2**	**3**	**-8**
8. Jeg tror mer på Gud nå enn jeg gjorde før.	**0**	**1**	**2**	**3**	**-8**
9. Jeg har lært at jeg kan takle mye mer enn jeg trodde jeg kunne.	**0**	**1**	**2**	**3**	**-8**
10. Jeg har fått nye ideer om hvordan jeg vil ha det når jeg blir stor.	**0**	**1**	**2**	**3**	**-8**

[1] Skjemaet er gratis. Forfatterne ønsker til gjengjeld å få kopi av eventuelle publikasjoner som beskriver data fra skjemaet.

[2] Kontaktinformasjon: gertrud.hafstad@nkvts.unirand.no eller Gertrud S. Hafstad, NKVTS, Kirkeveien 166, bygning 48, 0407 Oslo

THE POSTTRAUMATIC GROWTH INVENTORY (PTGI)

Tedeschi & Calhoun, 1996; 2004 revision

Norsk oversettelse etter tillatelse fra forfatterne: Nasjonalt kunnskapssenter om vold og traumatisk stress, 2007

Instruksjon: Det hender at folk rapporterer positive endringer etter traumatiske opplevelser. Vi ønsker å undersøke i hvilken grad (hendelsen) har bidratt til positive endringer i livet ditt. Bruk skalaen under, og sett en **ring** rundt svaret ditt.

0 = Jeg opplevde **ikke** denne forandringen som følge av (hendelsen)

1 = Jeg opplevde denne forandringen i **svært liten grad** som følge av (hendelsen)

2 = Jeg opplevde denne forandringen i **liten grad** som følge av (hendelsen)

3 = Jeg opplevde denne forandringen i **middels grad** som følge av (hendelsen)

4 = Jeg opplevde denne forandringen i **stor grad** som følge av (hendelsen)

5 = Jeg opplevde denne forandringen i **veldig stor grad** som følge av (hendelsen)

1.	Jeg har endret mine prioriteringer når det gjelder hva som er viktig i livet (V)	0 1 2 3 4 5
2.	Jeg setter mer pris på livet mitt (V)	0 1 2 3 4 5
3.	Jeg har fått nye interesser (II)	0 1 2 3 4 5
4.	Jeg har mer tro på meg selv (III)	0 1 2 3 4 5
5.	Jeg har fått en ny forståelse av åndelige spørsmål (IV)	0 1 2 3 4 5
6.	Jeg har oppdaget at jeg kan stole på andre i vanskelige perioder (I)	0 1 2 3 4 5
7.	Jeg har lagt om kursen i livet mitt (II)	0 1 2 3 4 5
8.	Jeg føler mer nærhet til andre mennesker (I)	0 1 2 3 4 5
9.	Jeg er mer villig til å uttrykke følelsene mine (I)	0 1 2 3 4 5
10.	Jeg er sikrere på at jeg kan håndtere vanskeligheter (III)	0 1 2 3 4 5
11.	Jeg får mer ut av livet mitt (II)	0 1 2 3 4 5
12.	Jeg har lettere for å godta ting som de har blitt (III)	0 1 2 3 4 5
13.	Jeg setter mer pris på hver eneste dag (V)	0 1 2 3 4 5
14.	Jeg har fått nye muligheter jeg ellers ikke ville ha fått (II)	0 1 2 3 4 5
15.	Jeg har fått mer medfølelse for andre (I)	0 1 2 3 4 5
16.	Jeg gjør mer for å ta vare på dem jeg bryr meg om (I)	0 1 2 3 4 5
17.	Jeg er mer tilbøyelig til å forandre på ting som trenger å endres (II)	0 1 2 3 4 5
18.	Jeg har en sterkere religiøs tro (IV)	0 1 2 3 4 5
19.	Jeg har oppdaget at jeg er sterkere enn jeg trodde (III)	0 1 2 3 4 5
20.	Jeg har lært mye om hvor flotte mennesker kan være (I)	0 1 2 3 4 5
21.	Jeg har lettere for å akseptere at jeg trenger andre (I)	0 1 2 3 4 5

NB: Skalaen skåres ved å legge sammen responsene på alle spørsmålene. Faktorene skåres ved å legge sammen responsene på spørsmålene som tilhører hver faktor. Faktortilhørigheten på hvert spørsmål skal ikke stå i skjemaet som administreres til deltakere i forskning.

PTGI Faktorer

Faktor I: Relating to others
Faktor II: New possibilities
Faktor III: Personal strength
Faktor IV: Spiritual change
Faktor V: Appreciation of life

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