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Post-traumatic stress reactions in a long-term and several generation perspectives

Zespół stresu pourazowego w perspektywie długoterminowej i wielopokoleniowej

Summary

The article presents issues related to post-traumatic stress in a social context. The focus was on showing how historical traumas as well as living in the state of fear for a long time affect identity formation of future generations. The exploration was based, among others, on the historical analysis of two oil rig disasters (Alexander Kielland in 1980 and Piper Alpha in 1988) and war, mainly World War II-based trauma. In addition, the authors conducted numerous interviews with survivors, with the families and relatives of those who were killed, and with people directly and indirectly linked to dramatic events on oil rigs. Disaster reports and private records were also analyzed. On this basis, it was shown how the message on traumatic experiences passed from generation to generation shapes the relationships and lives of next generations. An important issue was also to look for answers to the question on how signals from the past are to be received and how to use these signals when working with families of those who are experiencing long-term post-traumatic stress.

Keywords: post-traumatic stress disorder, generational message, trauma, identity

Streszczenie

W artykule zaprezentowano zagadnienia związane ze stresem pourazowym w kontekście społecznym. Skoncentrowano się na ukazaniu tego jak traumy historyczne, ale również i długotrwałe życia w lęku wpływają na kształtowanie się tożsamości kolejnych pokoleń. Eksploracja oparta została między innymi na analizie historycznej dwóch katastrof na platformach wiertniczych (Alexander Kielland z 1980 r. i Piper Alpha z 1988 r.) oraz traum wojennych

głównie z czasu II wojny światowej. Dodatkowo autorzy przeprowadzali liczne wywiady z ocalałymi, ale również z ich rodzinami oraz z krewnymi osób, które zgineły, czy też z osobami bezpośrednio i pośrednio związanymi z dramatycznymi wydarzeniami na platformach wiertniczych. Przeanalizowano również raporty dotyczące katastrof, a także dokumentację prywatną. Na tej podstawie ukazano jak przekaz z pokolenia na pokolenie traumatycznych przeżyć kształtuje relacje i życie następnych pokoleń. Ponadto ważne stało się także poszukiwanie odpowiedzi na pytanie: jak należy odbierać sygnały z przeszłości, jak wykorzystywać je w pracy z rodzinami tych osób, które doświadczaja długotrwałego stresu pourazowego.

Słowa kluczowe: zespół stresu pourazowego, przekaz generacyjny, trauma, tożsamość

The main examples; Alexander Kielland oil-plattform collapse in 1980 and the Piper Alpha oil-platform explosion. fire and collapse in 1988, war trauma from the First and Second World War periods and later wars

During more than a decade we have been researching the long-term memories and reactions to traumas of the past. We started those studies focusing on the memories of the Second World War and later other wars of the past, the most important the First World War (Drew, Smith-Solbakken, Weihe, 2011; Dessingue, Smith-Solbakken, Weihe, 2009; Dessingue, Ryckebusch, Smith-Solbakken, Oddone, Tomasek, Weihe, 2011). Several publications partly focusing on the aspect of memories and partly on the historical interpretations have later served as introductions to other research. The last of them two books covering the memories of the Alexander Kielland oil-platform collapse in 1980 where 123 workers were killed and a book on grief (Smith-Solbakken, Kongsnes, Tungland, Weihe, Daatland, 2016; Paulsen, Smith-Solbakken, 2017).

Interviews have been made with survivors, relatives to survivors and those who died, rescue workers and others. In addition, we have used substantial archival material as well as private personal documentation connected to the Alexander Kielland accident, the Piper Alpha accident in 1988 and the studies of memories of war and other trauma. The studies of the oil-sector accidents are also connected to earlier studies of oil history by Marie Smith-Solbakken and studies of social history by Hans-Jørgen Wallin Weih.

Our main study has been the Alexander Kielland accident from 37 years ago (Eggen, 1980; Enghaug, Lønning, 1980; Faedrelandsvennen, 2010; Holen, Sund, Weiaeth, 1983; Johansen, 2005; Kindingstad, Hagemann, 2002; Kvendseth, 1988; Næsheim, Moan, Bekkevik, Øveraas, Kloster, 1981; Tagesen, 1983; Weisaeth, 2002; Weihe, Smith-Solbakken, 2016).

A generation have grown-up after the accident. Some of those have heard about the accident, others have not. At the same time, we know that the accident for some is like it happened yesterday. Many of our informants tell that the accident was like yesterday. Looking through the police reports we can see that the describe the accident in the same way today as they did in 1980. Those who were in the accident, their relatives and those who participated in the rescue operation and the after-work have their memories and some of them has been severely affected. The interviews made has all been made for publication and as historical records. Thus, the interviews are with identified persons who all have accepted that they will be part of historical records available to the public.

Those who have grown-up together with those affected with the accident will also be affected. The British Noble Laurate Doris Lessing (1919–2013) describe how her life was influenced by her parents, war experiences from the First World War. That was a war before she was born. Likewise the Polish writer Maria Wisława Anna Szymborska (1923–2012) was awarded the Noble price in 1996 for poetry that with ironic precision allows the historical and biological context to come to light in fragments of human reality (Kowalczyk, 2012). Certainly, the narratives of the pas and individual life, is often better communicated by poets and writes than by dissecting scientific analysis.

One example is a lady telling how she 10-year-old, tried to take care of her mother after she lost her big-brother. The loss of the brother was painful, but the greatest pain and trauma was to take care of her own traumatized mother. A man that was interviewed told the same; To lose a brother is a brutal experience, but to relate to the grief of my mother was ten-times worse. My mother just disappeared, she was like a plant with no water. It was like a shadow in the family².

Those who are interviewed have very different experiences. Many of them can be related to the writings of the two Noble laurates. A man that lost his father when he was four years old says; "We in our family are conscious of telling each other that we care. I never go to bed without telling my partner and our children. Even if the children are sleeping I tell them. It is important that they know, because things might change rapidly, even for me." His older sister tells the same, she is in the same way towards her daughter³.

Post-traumatic reactions and reactions to trauma

The research of trauma and post-traumatic experiences is extensive. What is labeled as post-traumatic reactions is what happen a long time after the trauma. It

¹ Interview with Maia Skomedal, Kristiansand, 11.01.2016 by Marie Smith-Solbakken and Hans-Jørgen Wallin Weihe.

² Interview with *Ole Guttorm Ihme* and *Hans Øystein Ihme*, Mandal, 11.01.2016 by Marie Smith-Solbakken.

³ Interview with *Hege Kristine Harbak Skomedal* and *Ole Kristian Skomedal*. 11.01.2016 by Marie Smith-Solbakken. Interviw with Skomedal, Hege Kristine Harbak and Skomedal, Ole Kristian 14.02.2016 by Marie Smith-Solbakken.

is reactions that can be triggered by special experiences, burdens, change in life situations and even change in health and disabilities (Friedman, Resick, 2007; Gersons, Carlier, 1992). An old lady of 96 years old tell of her post traumatic reactions in 2017 being triggered by the loss of physical health resulting in nightmares and painful memories of the past from the Finnish Winter War of 1939 (Weihe, 2007).

Edmund Arne Mongstad, worked on the drilling deck preparing new operation the evening of the accident. He was hit unconscious, punctured a lung, broke several ribs managed to move through dark rooms hearing the cries of those dying and stuck in the construction of the capsizing platform and finally managed to get into a lifeboat. He tells about paralyzing experiences with fire alarms needing help to get away⁴. Others describe other returning reactions such as extreme sensitivity to placements in rooms, to sudden sounds, to weather, to water and so on⁵. We have considerable knowledge of what we can anticipate of such reactions (Galea, Nandi, Vlahov, 2005). Most of those affected by a major disaster or by major trauma seem to cope very well, even if it is normal to have a difficult period just after the accident. Some have lasting challenges, but they do not necessarily define them as problems. One rather extreme example was a conversation with a Finnish war-veteran in Stockholm in 20056. He had been active as a soldier since 1939 until the end of the war in 1945, but told he had had no problems with his war experiences. Still, he had to adapt to the experience and had the habit of staying awake the whole night and sleeping during the day. The reason, in his interpretation, was that he had experienced many night attacks during the war. Sometimes such reactions will be of considerable challenge for work and social relations. In the case of the Finnish war veteran he thought of the reactions as beneficial to his work as he could do his work as an independent consulting engineer without interruptions, however his wife thought of it as a considerable challenge. Many family members, children, spouses, parents and other close ones describe considerable and long-lasting challenges with those that have post-traumatic reactions.

There were many who wanted to help, who never came in the position to help. It was a great strain being on a ship nearby not being able to do anything else than listening to the radio and many people ashore and on other oil-platforms were desperate to help, but unable to do so. One of our informants, Arvid Bakken, told about people starting off in their fishing vessels to in the middle of the night – with 16–17 hours travel to get into the position of helping⁷. The effort was guite impossible, no one survived for more than one hour in the cold-water

Interviw: Edmund Arne Mongstad. Bergen, 28.10.2015. by Marie Smith-Solbakken and Tord Fanti Pauslen.

Interview: Martin Harvia Waage and Gro Waage. Førdesfjorden 22.12.2014 by Marie Smith-Solbakken and Tord Fanti Paulsen.

Conversation with a retired Finnish War Veteran in Stockholm (Slatsjöbaden) by Hans-Jørgen Wallin Weihe.

Arvid Bakken oral information. 7

and there were many vessels and helicopters already near the accident. At the neighbor oil-drilling platform of Edda the people in the canteen prepared to take on board survivors. Just a few survivors came, and most of the effort was in vain. The pain of not being able to help is also, a mostly ignored, cause of great emotional stress and post-traumatic reactions.

Death in family might result in moving from one place to another. For many of the children that had to move because of the loss of a father the greatest trauma was, in retrospect, the loss of friends and relations they had locally. Quite often children have strong emotional bonds to others than the parents and more so when they grow up. One of those interviewed told about his close attachment to his grandparents. They lived on a farm and he used to be with his grandparents the whole time while the mother and father was off at work. When the father died in the accident the mother moved away from the farm with her children. A great trauma for the boy was the movement and losing the daily contact with the grandparents⁸.

The pioneer in the research of post-traumatic experiences was the Czechoslovakian later Norwegian citizen Leo Eitinger (1912–1996) (Eitinger, 1964; Eitinger, Strøm, 1973; Smith-Solbakken, Weihe, 2013). He was among the few survivors of the death camps and partly based his research on his own experiences. The mental trauma of such experiences and war trauma is today well-established fact (Myers, 1915; Van der Kolk, 2007; Van der Kolk, Weisaeth, Van der Hart, 1997; Van der Kolk, McFarlane, Weisaeth, 1997. Today psycho traumatology or catastrophe psychiatry is a well-acknowledged field of research and many health and social workers have specialized on such work (Sund, 2008; Weiaeth, Mehlum, 1993; Wilson, Raphael, 1991; Malt, Weisaeth, 1989; Michel, Lundin, Otto, 2001; Quarantelli, 1978). How we understand such reactions have been revised as we have gained knowledge (Yehuda, McFarlane, 1995; Horwitz, 1976). There are great differences in individual resistance to stress and trauma. The mental stability of each individual and the personality of individuals will have importance for how we handle trauma as well as for post traumatic reactions (Santor, Bagby, Joffe, 1977).

Still, specialized follow-up is only possible for certain identified target groups and never for post-traumatic reactions appearing in the long-time perspective such as after nearly forty years. Most people experiencing trauma influence others and often in unpredictable ways.

The incriminating research and the need of treatment

Research on the trauma after big accidents, disasters, war and terror is often experienced as a great strain for those being the subject of the research. In our

⁸ Interviw with the son Øyvind Reve by Marie Smith-Solbakken.

research we have met several that report that they have had such reactions and often increasingly so with longitudinal research. Those doing the research are obviously trying to do so in a sensitive and non-intruding way (Norris, Galea, Friedman, Watson, 2006). Still, focus in such research is the consequences and long-term reactions and not the psychosocial consequences of research (Norris, Elrod, 2006). Many of those interviewed, who had been part of research have felt like they have been used to promote research and academic ambitions.

There are many challenges, both methodological and ethical, of research on people who have been influenced by catastrophes (Norris, 2006). The research can be experienced as intruding and it can create expectations of treatment and other help that the researcher has no or little possibility of giving. Many of those researched accepted our research because we made the interviews as historians and documentarians and not as representatives of health and social professions. At the same time, they told about negative reactions to research on post-traumatic stress reactions and of their mental status. On returning criticism was that they had contributed to the knowledge of mental reactions through telling their experiences, but without receiving any services in return. One of the survivors took education as a theologian and became a chaplain. After he had been researched for thirty years he finally said no. He felt like he had contributed to numerous academic degrees, but never experienced anything in return⁹.

There are several studies of long-term reactions after the accident (Holen, 1993, 1991, 1990; Holen, Weisaeth, 1983; Holgersen, 2011). The accident has resulted in considerable research as well as clinical experience with post-traumatic reactions. However, there are also an increasing awareness that there are many who are influenced by the accident that health and social services do not know. Sometimes, that is because they find researcher as intruding and unnecessary, because of lack of confidence in research and researchers at other times because they want to leave the experience and feel like research will open old wounds that are healed and sometimes because they are not known or cannot be found.

Measurable symptoms of stress are naturally reduced with time for most (Green, Lindy Grace, Gleser, Leonard, Korol, Winget, 1990; Holgersen, 2011; Lundin, Jansson, 2007; Neria, Nandi, Galea, 2008; Norris, Freidman, Watson, 2002), but certainly not for all. There are those that struggle over time and sometimes have increasing problems. Research show that some have continuous mental reactions and sometimes specific post-traumatic reactions (Holgersen, 2011, p. 53).

There exist many experiences and research about how it is to live with traumatic experiences over long-periods of time (Neria, Nandi, Galea, 2008; Norris, Friedman, Watson, 2002; Norris, Friedman, Watson, Byrne, Diaz, Kaniasty, 2002). Research on war veterans is one example of such research (Bramsen, van der Ploeg, 1999). Research on the victims of big oil industrial accidents is another example (Morgan, Scourfield, Williams, Jasper, Lewis, 2003).

⁹ Interview: Theis Salvesen, 13.11.2015, by Marie Smith-Solbakken and Tord Fanti Paulsen.

Both researchers and clinicians agree that we need to understand reaction on extreme situations as potentially life-long (Blank, 1993; Davidson, Foa, 1993). Some post-traumatic reactions will appear after considerable time. What triggers reactions will vary greatly among them can be new stressful situations, deteriorated health, loss of close ones, other emotionally stressful situations with family members.

Even if no one wants to experience a disaster such happenings might be a turning-point in life that can contribute to positive development. The seriousness of what happened might create a consciousness of what is important in life. Quite some describe that they after an accident gain an increased awareness of what is important in life (Zoellner, Maercker, 2006; Weihe, Smith-Solbakken, 2012).

Treatment and various kinds of clinical intervention and assistance can be connected to research, but most often is not. In case of treatment intervention most of those interviewed emphasized the short-term perspective and often the total lack of long-term perspective in treatment. Those who have problems with their memories and post-traumatic reactions emphasize that they are returning challenges. Time does not heal the wounds of trauma (Amir, Lev-Wiesel, 2003; Askvold, 1976/1977). Treatment is mostly about learning how to cope with loss, understand own-reactions and being able to live together with others (Johannesson, Lundin, Hultman, Lindam, Dyster-Aas, Arnberg, Michel, 2009). Thus, quite some treatment is like existential counselling traditionally made by churches and theologians.

Research on long-term effects need to be connected to offer of treatment, assistance and clinical consultations. As a rule, research should not be started without having a plan for how to gain access to treatment, assistance and clinical consultations. Treatment also need to have a long-term perspective and if possible be based upon stable long-term personal contacts. Most experience a great stress from continuous changing personal contacts.

The State of readiness of society

Today crises intervention is a well-established tradition of work within the different professions that can be involved in helping victims and others in case of big disasters and accidents. All Norwegian municipalities have routines for crises intervention and have organized crises intervention teams. However, since some of the municipalities are rather small with only a few hundred citizens, the state of professionalism and the expertise available will vary greatly.

At the time of the Alexander Kielland accident such work was much less organized and there were few routines. The head-master at the small school in Førdesfjorden were seven fathers died, told us in an interview of the uncertainty

about how he as the headmaster and the teachers should handle the situation; "We did not know if we should talk about the accident or not, or if the school should be a free-zone that avoided talking about the accident, it was sort of an unplowed field. There were no one to lean on."10.

Municipalities, employers, schools, health and social work professionals had different and often very personal approaches to how to help. In the small community of Førdesfjorden the local chaplain Per Nordbø was the main worker. He was supported by lay-members of his congregation. He worked without counting hours and did, in the opinion of members of the congregation, a tremendous effort under great personal strain.¹¹ Førdesfjorden was a small coastal rural community were many men worked in the local shipyard in the town of Haugesund just north of Stavanger in western Norway.

However, there were local variations in the southeastern faced coastal areas – in Norway called Sørlandet or the Southern land – employers took a more active role than in other parts of the country¹² In the small island community of Berland in Askøy outside of Bergen in western Norway co-workers and the trade union leader organized together with neighbours, friends and other locals to help those who lost a family member¹³. In this community the church little involved, the health and social services were not involved and information of death came from the police after news was received through media¹⁴.

A relative in the town of Sandefjord just south of Oslo asked for having just one policeman as a contact. The police in Stavanger, a long distance from her town, oversaw the rescue work ashore. The Stavanger police department changed their routines due to the request to have stable continuous contacts for the relatives¹⁵. Later the need for continuity in personal contacts with family members is well established as a standard routine, whenever possible.

Interview: Martin Hartvig Waage (head master) and Gro Waage (teacher) the 22.12.2014 by Marie Smith-Solbakken and Tord Fanti Paulsen.

Interview: Gunnar Kartveit (Diaconial worker - Kateket-Tysvær and Førresfjorden diocese) 31.12.2015. by Marie Smith-Solbakken. Interview: Siqve Djursvoll (sexton), Aud Førland (Chairwomen of the congregatio and secretary of the local school Førre skole), Interview Haldis Alsaker (Diaconial worker). Førdesfjorden, 4.1.2016 by Marie Smith-Solbakken and Tord Fanti Paulsen. Interview Marie Elisabeth Steensnæs Nordbø (Organist in the local church - Førre kirke and the wife of the chaplain Per Nordbø) the 4.1.2016. Djursvoll (No publication year: 78–80). Clementsen (2014)

Interview: Ove Anderson 24.11.2015 by Marie Smith-Solbakken, Hans-Jørgen Wallin Weihe and Tord Fanti Paulsen. Interview: Svein Samuel Krossen 3.2.2016 by Marie Smith-Solbakken. Interview: Kirsten Fjellstad 26.1.2016 by Marie Smith-Solbakken.

Interview 4.2.2016 by Marie Smith-Solbakken. Interview Gunnar Guttormsen 5.2.2016 by Marie Smith-Solbakken. Interview: Nils Berland 4.2.2016 by Marie Smith-Solbakken. Interview Lars Sørhaug 4.2.2016. by Marie Smith-Solbakken. Interview Asbjørn Berland 4.2.2016 by Marie Smith-Solbakken.

Interview: Liv Iren Berland by Marie Smith-Solbakken.

Interview: Bengt Jacob Rode 5.2.2016 by Else M Tungland and Marie Smith-Solbakken.

The Alexander Kielland accident hit a country unprepared for a catastrophe of that size. The accident resulted in increasing focus upon how to take care of families and other close relations and the importance of co-operation between families and the authorities. In the private sector the accident resulted in similar focus. The Norwegian national network of support groups was an important driving force in developing such co-operation.

In rescue services, the health and social sector, the police and church it was established routines for giving information to close ones. Both the immediate crises response and the long-term perspective was focused. Other countries have had a similar development of services and co-operation. The Norwegian national network of support groups¹⁶ has been an important political pressure group as well in close co-operation with similar organizations in other countries.

Crises intervention have established better routines after the accident (Bisson, Roberts, Macho, 2003). However, long-term follow-up remains a great challenge and is likely to remain a challenge. Both internationally and nationally there are established routines for catastrophe psychiatry and handbooks and manuals for routines (Ursano, 2007). The knowledge of post-traumatic reactions has resulted in substantially better strategies for taking care of those with such problems (Friedman, Keane, Resick, 2007). At the same time we are increasingly aware that it is not possible to know about the full extent of people influenced by such disaster and that trauma is often affecting families and communities for several generations. We must settle with making services available and to give repeated information.

Most of those involved in the accident had some short-term reactions, but we know that a number had long-term and repeated problems. We also know that research has focused upon those directly involved in the accident and not included others influenced by the accident. Research from the Piper Alpha accident give similar information.

Rescue workers, professionals or others, were highly motivated even if they found the rescue work hard and a tough experience (Thoresen, Tonnessen, Lindgaard, Andreassen & Weisaeth, 2009). An important lesson is the need to prepare those involved in such operations for the long-term emotional effect and how to deal with memories.

The degree of readiness in safety precautions in society is both a question of politics and available resources. In the case of the oil-sector it is a question of cost in search of welfare for the whole of society as well as profit for the private sector and consequences in case of accidents (Ryggvik, 1999). Part of the issue is the training and preparedness of professionals. In small a community those being helpers are often alone with little or no training. Sometimes, like the example of the case of a chaplain in a small congregation like Førdesfjorden, the helper will be under great and continuous strain. In other case's helpers

¹⁶ In Norwegian «Det nasjonale nettverk av støttegrupper».

will be part of a larger team. However, most important is to support the network of family members and others. Those will always play a crucial part of the long-term follow up and they will be the ones most often to be there in case of post-traumatic reactions.

The families and the network

It is obvious that what happens to a person involves others in the network emotionally. When we care about others we will be emotionally influenced with what happens with them. Children and juveniles are at a stage in life where they are dependent upon their parents and having a parent killed is a particularly difficult both from the view of practical issues and emotional. However, in many cases the most difficult part was not the one lost, but living with and relating to family members, like a mother, in grief. We have many informants describing parents severely emotionally affected¹⁷. Children do grow up, but the emotional strain is sometimes continuing and affecting the next generation as well. One example is a mother who lost her father as a child. After having established her own family with her own children she committed suicide severely depressed and longing to be united to her father that died in the accident. Her husband and her children described how her depressions, grief and finally suicide affected the whole family years after the accident¹⁸.

There are great variations how families adapt both emotionally and practically (Hafstad, Gil-Rivas, Kilmer, Raeder, 2010). Even if both employers, insurance, unions and the public emphasized economic compensation there were cases of economic problems and those not fitting into the categories made for compensation (Brunswig, 1983). There were also those who were so traumatized that they withdrew from work and did not seek any compensation.

Family members supporting each other is operating in a long-term perspective. Family is family for the rest of the life. Professional do not represent the same kind of stability and long-term relationships.

Those we know about and the numerous unknown

Working with memories from war we have several times encountered "significant others" living geographical distant from the war action. One of our example is a young girl contacting us about her grandmother living in the USA. Her



See Interviews with Asbjørn Berland; Ole Guttorm Ihme; Maia Skomedal; Theis Salvesen.

Interview Ole Andreas Kjelland by Marie Smith-Solbakken.

grandmother came from Ireland and had boyfriend before she got married who got killed in Norway. He was crew member on an airplane that was shot down in southeastern Norway. His grave, which the family never had been able to visit was on a small churchyard in a rural community. Her grandmother, who was a widow, very much wanted to see a picture of the grave before she died. The strong emotional bonds to the man she never married was well acknowledged in the family and the old lady had lived a good life. Still, the trauma of old age was not being able to honor her boyfriend who died in 1943.

Most of those that died in the Alexander Kielland accident were young men. Many of tthose that died were in their twenties. Some of them had girlfriends no one knew about. In a funeral in 2015 one of us was told about a middle-aged lady who had had a boyfriend that died in the accident. *It really marks mother* said the lady who told the story. Then she continued, *It marks us all, but most of all my father*. Her father was in another occupation living in the northernmost part of the country. As the husband he had been living with the pain of his wife of losing a boyfriend he never knew. The daughter who told the story was proud of her father having lived with the grief of his wife for 35 years. It was a story of pain inflicted before the storyteller was born, but that had been of great impact in her life.

Neither clinicians nor researchers will be able to get the complete picture of all the memories and strains in the life of others. We influence each other and we are influenced by others. The example of the love of the mother before she got married to her present husband is in no way unique. There are numerous such examples and we also have several them from those who lived through the Second World War.

Our contacts and research has been from one family to another from one individual to another. We have used a sort of snowballing approach. Quite often we have spoken to one person who introduced us to the next. Thus, we have been able to get in touch with people not contacted by researchers. Many of them has never prior spoken to each other about the accident and their memories. Several have spoken about the silence connected to their own grief and their difficulty of speaking together about emotional issues. Still, that does not mean that they have not interacted. Often emotional issues have been dealt with in physical ways, working together, walking on long trips, following daily life routines, taking care of each other, eating meals together, tending animals or relating to a dog or a cat. Professional health and social workers often overlook the importance of daily life and for many a cat on the lap is good therapy.

Those we have overlooked

«I saw my father's name listed on TV. I did not know that he was at work in the North-Sea at the time, however he had taken the watch for a colleague" said one

of those we interviewed. She was totally un-prepared and thought her father was safe ashore. As she told her story she had never been part of the research after the accident and never been offered any kind of help or treatment. The situation after the accident was confusing, records were not available and sometimes lost. Some of the people expected to be on the platform had not been able to travel due to weather conditions¹⁹. Others were not supposed to be on the platform, but had to be there because of weather conditions or other reasons²⁰.

In case of big disasters situations are often confusing. Priorities is to be made and rescue operations is to be given priority. Thus, the concern of relatives ashore is a minor concern.

The different kind of trauma

Longitudinal research has been done with a variety of trauma. Some of the first research was on survivors of concentration camps. The cause of the stress was evil intentions or deeds by others (Eitinger, 1964); Eitinger, Strøm, 1973). Soldiers in battle have the possibility of fighting, concentration inmates do not. In Norway research has been focusing on civilian sailors in war (Egede-Nissen, 1978).

Terror is different from war trauma and civilian accidents. Terror often target unprepared civilians in seemingly peaceful societies. The terror in Paris in November 2015with 130 killed and in Norway in 2011 with 77 killed are examples. In both cases what can be labeled as evil intentions resulted in death and destruction.

The Alexander Kielland accident was not caused by evil intention. However, there are speculations of human error and lack of personal action. The platform was constructed to withstand the conditions of the North-Sea and it did not. The report of the accident commission gives the official explanation of the accident. However, many of those involved do not trust the conclusions of the commission. For quite some the greatest trauma was and is still today that they regard the accident as un-solved²¹.

Accidents often happen unexpected. However, there are situations where we know about the risk of accident and death. In shipping and fishing we expect accidents (Dyregrov, Gjestad, 2003), and we know that some industrial work can be dangerous (Weisaeth, 1989a, 1989b). We know about the danger of fire, traffic and natural-disaster; however, we do not expect them to happen (Dyregrov, Frykholm, Lilled, Broberg, Holmberg, 2003).



¹⁹ Sverre Karl Kristensen muntlig opplysning; Lennart Lundholm muntlig opplsyning.

²⁰ Kian Reme oral information to Marie Smith-Solbakken.

²¹ Interview Øyvind Reve by Marie Smith-Solbakken.

The former prime minster of Norway Oddvar Nordli asked if the victims in the accident was a too high price for the welfare created by the oil-sector. Many of those in positions of authority and decisions in the non-governmental business, in trade unions and public administration asked themselves related questions. Some of them had great problems with their role as administrators and decision-makers after the accident. A daughter of a manager told who her father who was ashore and responsible for several workers that died never recovered. The accident influenced the whole family²².

The challenge of living with decisions that in retrospect were wrong is great and particularly so when the result is a disaster causing the loss of life²³. Rolf Wiborg, an engineer with the operating responsibility for Ekofisk, the oilfield, the night of the accident tells about how he and others in similar position, live with that experience. The challenge of feeling of personal responsibility and for some the feeling of guilt is difficult.

Trauma as an identity

Some of those interviewed described how the accident totally dominated life even years afterwards. The identity of those individuals seems to circle around the experience of the traumatic incident. Research from other accidents have shown that there are some individuals who will get the trauma as their identity (Amir, Lew-Wiesel, 2003; Askevold, 1976; Berntsen, Rubin, 2007). In one of the families the children and the husband described such a reaction from the mother/wife²⁴. In the case it seemed to be an individual reaction that was understood as a great challenge later resulting in the mother/wife death among the relatives.

However, there are also those that experience strong expectations of continued grief from others. One of the widows described such expectations. Only after the local chaplain told her that it was acceptable to be happy even after she had lost her husband did she manage to break the role of the grieving widow. She had not thought that possible and experienced the acceptance and the authority of the chaplain as crucial to get into another identity²⁵.

Individual personality as well as social context can greatly influence the identity and mental status (Taylor, Brown, 1998; Taylor, Kemeny, Reed, Bower,

²² The daughter do not wish to be identified, but her identity is known to the authors.

²³ Interview with Rolf Wiborg.

²⁴ Interview: Ole Andreas Kjelland med barn. Hidra, by Marie Smith-Solbakken, Hans-Jørgen Wallin Weihe and Tord Fanti Paulsen. Interview: Eva Jess, Egersund, by Marie Smith-Solbakken, andTord Fanti Paulsen.

²⁵ Interview: *Hjørdis Hagen*, Lillesand by Marie Smith-Solbakken and Hans-Jørgen Wallin Weihe.

Gruenwald, 2000). Many of those affected by the accident came from small coastal communities, some of them with strong religious traditions and values. Thus, the authority of a chaplain would be much higher than in more secular communities.

Resilience

The ability to be able to cope with great emotional and physical stress is defined as resilience (Borge, 2010). There are many people that seem to able to continue life without problems even after great trauma and extremely difficult conditions (Bonnano, 2004; Bonnano, Galea, Bucciarelli, Vlahov, 2006; Rutter, 1985). The level of resilience can be rather different from one individual to another. In some occupations, such as in some selected military forces, individuals are selected according to their ability to handle great stress. At the Alexander Kielland platform they had no such selection.

However, even in the general population there are many who have a great degree of resilience. Some researchers conclude after analyzing data from several mayor catastrophes, that health and social professionals have underestimated the general level of resilience in the population (Bonnano, 2004; Bonanno, Galea, Bucciarelli, Vlahov, 2006).

However, even if those directly affected do not describe post-traumatic reactions or reactions after an accident that does not mean that relatives or other close ones do not have reactions. In several cases we also experience that spouses and children describe reactions that those who have been in the accident do not acknowledge. Sometimes children of those that have been in the accident describe reactions even if there are not described reactions for the person who has been in the situation²⁶.

Salutogenese

Aaron Antonovsky (1923–1994) developed the concept of salutogonese to describe factors giving good mental and physical health (Antonovsky, 1987, 1979; Hanson, Cederblad, 1995; Walseth, Malterud, 2004). He developed the theory from the experiences of a small group of females who had been through tough

²⁶ Interviee: Håkon Jarl Hansen, Karmøy, Undated. Marie Smith-Solbakken and Else Tungland. Interview: Gunnar Øvrebø, Haugesund, undated. Interview: Torunn Falk and Anne Margrethe Falk, undated. Marie Smith-Solbakken and Tord Fanti Paulsen.

stress, but still functioned as well as females not having experienced such stress in their lives (Eriksen, Lindström, 2006). His focus is the opposite of patogonese which is the study of what creates sickness or pathology. In his interpretation each individuals «sense of coherence» (SOC) is crucial to good health and focus on the following elements;

- » Comphrensibility (The understanding of life and the ability to predict what will happen),
- » Manageability (The belief that oneself or with the help of others will be able to handle challenges),
- » Meaningfulness (Experiencing life as interesting and as source of fulfillment).

Each individual physical as well as mental health can in such a perspective be influences by how we view our ability to influence life, understand life and cope with challenges of life. People can in the perspective of Antonovsky influence their own health by gaining an understanding of what creates good health and active involvement. Clinicians as well as others need to focus on what creates good health rather than the causes of bad health.

A culture that supports positive participation in meaningful activities, give possibilities and actively support physical activity as well as giving basic economy and welfare will contribute to good health. In the interviews it was striking differences in how the those interviewed the support of their families as well as local communities. In some small coastal communities there were traditions of community assistance in case of accidents. In one case a widow was helped by neighbors who finished her half-built house and gave her considerable practical assistance.

Treatment

Not everyone welcome psychological ore psychiatric help after an accident (Weisaeth, 2001; Weihe, Smith-Solbakken, 2012). We also do not know that such intervention is not always necessary and helpful (Bonnano, 2004; Bonanno, Galea, Bucciarelli, Vlahov, 2006). There are great differences in what kind of support exist in and in individual resilience.

The existential and spiritual dimension

There are few institutions that encounters so many people in grief as churches. In Norway the dominant religious organization was in 1980 the State Evangelical Lutheran Church which today is the Norwegian Evangelical Lutheran

Church, Chaplains of the Church has traditionally had the role of taking contact with the family in case of accidental or sudden death. Most of those who lost family members in the Alexander Kielland accident were informed of the death by a chaplain.

Belief in God can be of comfort facing the fact of sudden death. Further the support and community of the Church seem to contribute to being able to handle existential crises (Marecker, Herrle, 2003). However, sometimes religious belief might develop into destructive thinking and an urge to communicate or be part of after-life. In our interviews one the families described a family member who committed suicide as part of an urge to join a father who was killed in the Alexander Kielland accident. However, most of those interviewed who emphasized the religious dimension, focused on the positive aspects of a Christian belief and the support of the Church. In the small community of Førresfiorden, particularly hard struck by the accident, the Church was described as a mayor support after the accident.

In Førresfjorden, the local chaplain managed both to make the right dignified and respectful sermon for the funeral and a long-term follow up of the families as well as organizing others in support of those who lost their close-ones.

Nationally a radio broadcasted sermon just after the accident turned out to have importance. The broadcast came the morning after the accident, before the number of fatalities were certain, and at a particularly crucial time, for those who lost one of their close ones. Even 35 years after the sermon is remembered as important.

The search for explanations and the need for acknowledgment

In retrospect many experienced the Alexander Kielland accident as a system failure (Bignell, Fortune, 1984). It was in their experience an accident that never should have happened. Those controlling equipment, safety and constructions failed. Equipment used for the rescue operation either failed or were not available. A large scale public investigation tried to find answers and focused upon faulty welding in a small, but important part of the construction. Series of changes in routines, rules and regulations as well as constructional changes, new safety equipment and training procedures came after the accident.

Many of the analysis were technical and hard-science analysis of sea and weather conditions (Haagensen, 1985). There were safety analysis of human interaction with technology and in high-stress traumatic conditions as well as juridical reports (Brunswig, 1984). In media there were extensive coverage of the accident, which to this date is the largest industrial accident that has happened in Norway (Hovden, 1981; Hovden, Vinje, 1983). The presentations focused mostly on the causes of the accident and the fate of individuals. Those involved in the rescue operation and later police investigations published their own reports (Hovedredningssentralen, 1980; Stavanger Politikammer, 1983).

Both the Rescue Service and the Police reported what functioned as well as what did not function. For both services contact with families were important and well-acknowledged part of their services.

Interviewing survivors, family members and others involved it is striking that many emphasize the need to be acknowledged for living with the experiences from the accident. The same is true for those born after the accident, but who have grown-up with the experience. The shared experience of the accident has not only been negative. For quite some the shared experience has contributed to strong family and friendship ties. The need for acknowledgment, to be seen by others is important for most people (Weihe, 2012, 2007).

Both the King and the Prime minister emphasized national sharing, the importance of solidarity and the loss both for individuals as well as local communities and the nation. Both in Norway and United Kingdom several individuals were acknowledged for their efforts during the rescue operations. However, there were many anonymous heroes not acknowledged. A number of those affected by the accident describes the silence and lack of acknowledgement in their local communities. It is difficult to speak about grief and in many cases, it seems to be little tradition of speaking about grief outside of the formalities of the organized funerals.

At the time of the accident it was considerable media attention, some experienced the attention of media as an acknowledgement, while others experienced it as intruding and traumatic. The returning interest of media, at anniversaries or emotional histories presented in the public, remain to be an emotional issue for many. Reactions vary from finding the interest of the press as intruding and painful to be of help and acknowledging pain and grief. In some cases, media gave information of death, before authorities, employers or the church. The sensitivity of the news reader was important to many of those thus informed.

Even in the long-term perspective what happened just after the accident, the words spoken and the silence, who was acknowledged and who was not seen seem to affect the lives of those involved. Further those who experience that the causes of the accident have not been found seem to continue to struggle with the lack of acceptable answers (Smith-Solbakken, Kongsnes, Ellen, Tungland, Else, Weihe, Daatland, 2016; Paulsen, Smith-Solbakken, 2017).

Knowing the right answer

When we know the result, it is easy to identify the result certain identifiable triggering events like the trauma of a big accident or war. We understand the trauma and will see later life problems as a result. Still, that is not necessarily

right. After all few humans have lives without problems or challenges. Even humans with happy families well-functioning social relations and good living conditions sometimes develop mental and somatic health problems. All of us will be influenced by our experiences and more so of trauma, still many of our problems might have appeared even without those experiences.

We all need to make sense of our lives and we all need to face a life continuously changing. Health and social workers need to relate to individuals who have a past and we need to be aware of trauma in the past, but most of all to make people relate to the present.

References

- Amir, M., & Lev-Wiesel, R. (2003). Time does not heal all wounds: quality of life and psychological distress of people who survived holocaust as children 55 years later. *Journal of Traumatic Stress*, 16 (3), 295–299.
- Antonovsky, A. (1987). *Unravelling the mystery of health*. San Fransico: Josey Bass Publishers.
- Antonovsky, A. (1979). *Health, Stress and Coping*. San Fransico: Josey Bass Publishers. Askevold, F. (1976/1977). War Sailor syndrome. *Psychotherapy and Psychosomatics*, 27 (3–6), 133–138.
- Berntsen, D. & Rubin, D.C. (2007). When a trauma becomes key to identity: Enhanced integration of trauma memories predicts posttraumatic stress disorder symptoms. *Applied Cognitive Psychology*, 21 (4), 417–431.
- Berntsen, D. & Rubin, D.C. (2006). The centrality of event scale: a measure of integrating a trauma into one's identity and its relation to post-traumatic stress disorder symptoms. *Behaviour Research and Therapy*, 44 (2), 219–231.
- Bignell, V. & Fortune, J. (1984). *Understanding Systems Failures*. Manchester: Manchester University Press.
- Bisson, J.I. & Roberts, N. & Macho, G.S. (2003). Service innovations: The Cardiff traumatic stress initiative: an evidence-based approach to early psychological intervention following traumatic events. *Psychiatric Bulletin*, 27 (4), 145–147.
- Blank, A.S. (1993). The Longitudinal Course of Posttraumatic Stress Disorder. I Davidson, J.R.T. & Foa, E.B. (Redaktører) (1993). *Posttraumatic Stress Disorder: DSM IV and Beyond*. Washington, D.C.: American Psychiatric Press Inc. Side 3–22.
- Bonnano, G.A. (2004). Loss, trauma and human resilience. Have we underestimated the human capacity to thrive after extremely aversive events ?, 59 (1), 20–28.
- Bonnano, G.A. & Galea, S. & Bucciarelli, A. & Vlahov, D. (2006). Psychological resilience after disaster: New York City in the aftermath of the September IIth terrorist attack. *Psychological Science*, 17 (3), 181–186.
- Borge, A.I.H. (2010). *Resiliens: Risiko og sunn utvikling* (2. utg.). Oslo: Gyldendal Akademisk.
- Bramsen, I., & van der Ploeg, H.M. (1999). Fifty years later: the long-term psychological adjustment of ageing world War II survivors. *Acta Psychiatrica Scandinavica*, 100 (5). 350–358.



- Brunswig, P. (1984). Rettslige problemer som følge av Alexander Kielland ulykken. Nordisk institutt for sjørett. Oslo: Sjørettsfondet.
- Clementsen, S.H. (2014, 9/4): Sokneprest i Norheim, nekrolog Per Arnulf Nordbø, Haugesund Avis. http://www.h-avis.no/minneord/minneord/per-arnulv-nordbo/s/2-2.921-1.8375460 Downloaded 18.10.2017
- Davidson, J.R.T. & Foa, E.B. (Redaktører) (1993). *Posttraumatic Stress Disorder: DSM IV and Beyond*. Washington, D.C.: American Psychiatric Press Inc.
- Dessingue, A. & Ryckbusch, O. & Smith-Solbakken, M. & Oddone, P. & Tomasek, M. & Weihe, H.J.W (2011). Dunkirk. City of Memories. Stavanger: Hertervig Akademisk.
- Dessingue, A. & Smith-Solbakken, M. & Weihe, H.J.W (2009). *Sola Wargraves. Memories from the War*. Stavanger: Hertervig Akademisk.
- Djursvoll, Sigve (No publication year). "Sokneråd og kyrkjelyd" i Førresfjorden sokneråd: *Guds hus og himlens port Førdesfjorden kyrkje 100 år, side 78–80*.
- Drew, I. & Sognli, H. & Smith-Solbakken, M. & Weihe, H.J.W. (2011). *Silent Heroes. Operation Freshman*. Stavanger: Hertervig Akademisk.
- Dyregrov, A. & Frykholm, A.M. & Lilled, L. & Broberg, A.G. & Holmberg, I. (2003). The Gotheborg discotheque fire, 1998. *Scandinavian Journal of Psychology*, 44 (5), 449–457.
- Dyregrov, A. & Gjestad, R. (2003). A maritime disaster: reactions and follow-up. *International Journal of Emergencey Mental Health*, 5 (1), 3–14.
- Egede-Nissen, A. (1978). Krigsseilersyndromet. *Tidsskrift for den Norske Lægeforeningen*, 98, 469.
- Eggen, Bernt Gundersen (1980). Nordsjøtragedien. Oslo: Pax.
- Eitinger, L. (1964). Concentration camp survivors in Norway and Israel. Oslo: Universitetsforlaget.
- Eitinger, L. & Strøm, A. (1973). Mortality and morbidity after excessive stress: a follow-up investigation of Norwegian concentration camp survivors. Oslo: Universitetsforlaget.
- Enghaug, A. & Lønning, P.S. (1980). *Alexander Kielland KATASTROFE i Nordsjøen*. Oslo: Dreyers forlag.
- Eriksson, M. & Lindström, B. (2006). Antonovsky's sense of coherence scale and the relationship with health: A systematic review. *Journal Epidemical Community Health*; 60. Side 376–381.
- Friedman, M.J. & Keane, T.M. & Resick, P.A. (2007). *Handbook in PTSD*. New York: The Guilford Press.
- Fædrelandsvennen (2010, 27/3) Mayday! Kielland velter. 30 år siden Kielland katastrofen. *Fædrelandsvennen lørdagsbilag*. Forside, side 8–17.
- Galea, S. & Nandi, A. & Vlahov, D. (2005). The epidemiology of post-traumatic stress disorder after disasters. *Epidemiologic Reviews*, 27 (1), 78–91.
- Gersons, B.P. & Carlier, I.V. (1992). Post-traumatic stress disorder: the history of a recent concept. *British journal of Psychiatry*, 161 (6), 742–748.
- Green, B.L. & Lindy, J.D. & Grace, M.C. & Gleser, G.C. & Leonard, A.C. & Korol, M. & Winget, C. (1990). Buffalo Creek survivors in the second decade: stability of stress symptoms. *American Journal of Orthopsychiatry*, 60 (1), side 43–45.
- Haagensen, P.J. (1985). *Skadeanalyse etter Alexander Kielland havariet*. Oslo: Norske Sivilingeniørers forening.
- Hafstad, G.S. & Gil-Rivas, V. & Kilmer, R.P. & Raeder, S., (2010). Parental adjustment, family functioning, and posttraumatic growth among Norwegian children and

- adolescents following a natural disaster. American Journal of Orthopsychiatry, 80 (2), 248-257.
- Hanson, K. & Cederblad, M. (1995). Salutogen familieterapi. Fokus på familien, nr. 1, 1995.
- Holen, A. (1993). The North Sea Oil Rig Disaster. I Wilson, J.P. & Raphael, B. (Redaktører) (1991). International Handbook of Traumatic Stress Syndromes. New York: Plenum Press. Side 471-478.
- Holen, A. (1991). A longitudinal study of the occurrence and persistence of post-traumatic health problems in disaster victims. Stress Medicine, 7, 11–17.
- Holen, A. (1990). A long-term outcome study of survivors from a disaster: The Alexander L. Kielland disaster in perspective. Oslo: Universitet I Oslo.
- Holen, A. & Sund, A. & Weisæth, L. (1983). Alexander L. Kielland-katastrofen 27. Mars 1980. Oslo: Universitet i Oslo. Division for Disaster Psychiatry.
- Holgersen, K.H. (2011). Survivors in their third decade after the North Sea oil ria disaster of 1980. Thesis for the degree of Philosophiae Doctor. Trondheim: Norwegian University of Science and Technology, Faculty of Medicine Department of Neuroscience. (Avhandling nr 467 i medisin fra Universitet i Trondheim).
- Horwitz, M. (1976). Stress response syndromes. New York: Jason Aronson.
- Hovedredningssentralen Sør-Norge (1980). Boliaplattformen Alexander Kielland havari i Nordsiøen. Stavanger: Hovedredningssentralen Sør-Norge.
- Hovden, J. (1981). Avisenes behandling av ulykken med boligplattformen Alexander Kielland. Hovden, J. & Vinje Kjell, E.A. (1983). Disaster journalism, the newspaper coverage of the Alexander Kielland plattform accident. Oslo: Yrkeslitteratur.
- Johannesson, K.B. & Lundin, T. & Hultman, C.M. & Lindam, A & Dyster-Aas, J. & Arnberg, F., & Michel, P.O. (2009). The effect of traumatic bereavement on tsunami-exposed survivors. Journal of Traumatic Stress, 22 (6), 497–504.
- Johansen, T. (2005). Kielland en varslet storulykke. Petromagasinet, nr. 1 2005, 28 årgang, side 12-28.
- Kindingstad, T. & Hagemann, F. (2002). Norges Oljehistorie. Stavanger: Wigestrand. Kowalczyk, J.R. (2012). "Wisława Szymborska". culture.pl.
- Kvendseth, S.S. (1988). Funn! Historien om Ekofisks første 20 år. Stavanger: Phillips.
- Lundin, T. & Jansson, L. (2007). Traumatic impact of fire disaster on survivors a 25-year follow-up of the 1978 hotel fire in Boras, Sweden. Nordic journal of Psychiatry, 61 (6), side 479-485.
- Maercker, A. & Herrle, J. (2003). Long-term effect of the Dresden bombing: Relationships to control beliefs, religious belief, and personal growth. Journal of Traumatic Stress, 16 (6), side 579-587.
- Malt, U.F. & Weisaeth, L. (1989). Disaster psychiatry and traumatic stress studies in Norway. History, current status and future. Acta Psychiatrica Scandinavica, 80 (Supplement 355), 7-12.
- Michel, P.O. & Lundin, T. & Otto, U. (2001). Psykotraumatologi. Lund: Studentlitteratur. Morgan, L. & Scourfield, J. & Williams, D. & Jasper, A. & Lewis, G. (2003). The Aberfan disaster: 33-year follow-up of survivors. British Journal of Psychiatry, 182 (6), 532-536.
- Myers, C.S. (1915). A contribution to the study of shell shock. *Lancet*, 316–320.
- Neria, Y. & Nandi, A. & Galea, S. (2008). Post-traumatic stress disorder following disasters: a systematic review. *Psychological Medicine*, 38 (4), side 467–480.

- Norris, F.H. (2006). Disaster research methods: past progress and future directions. *Journal of Traumatic Stress*, 19 82), 173–184.
- Norris, F.H. & Elrod, C.L. (2006). Psychosocial Consequences of Disaster. I Norris, F.H., Galea, S., Friedman, M.J. & Watson, P.J. (Redaktører) (2006). *Methods for Disaster Mental Health Research*. New York: The Guilford Press. Side 20–42.
- Norris, F.H. & Galea, S. & Friedman, M.J. & Watson, P.J. (Redaktører) (2006). *Methods for Disaster Mental Health Research*. New York: The Guilford Press.
- Norris, F.H. & Friedman, M.J., & Watson, P.J. (2002). 60.000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry*, 65 (3), side 240–260.
- Norris, F.H. & Friedman, M.J. & Watson, P.J. & Byrne, C.M. & Diaz, E. & Kaniasty, K. (2002). 60.000 disaster victims speak: Part I. An empirical review of the empirical literature 1981–2001. *Psychiatry*, 65 (3), side 207–239.
- Næsheim, T. & Moan, T. & Bekkevik, P. & Øveraas, S. & Kloster, A. (1981). «Alexander Kielland» ulykken. NOU 1981:11. Oslo: Justis- og politidepartementet.
- Paulsen, T. & Smith-Solbakken, M. (Editors) (2017). Råolje. Alexander L. Kielland ulykken. Ringene i vannet. Stavanger: Hertervig Akademisk.
- Quarantelli, E.L. (1978). Disasters: theory and research. London: Sage.
- Rutter, M. (1985). Resilence in the face of adversity. Protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry*, 147 (6), side 598–611.
- Ryggvik, H. (1999). Fra forbilde til sikkerhetssystem i forvitring.
- Santor, D.A. & Bagby, R.M. & Joffe, R.T. (1997). Evaluating stability and change in personality and depression. *Journal of Personality and Social Psychology*, 73 (6), 1354–1362.
- Smith-Solbakken, M. & Kongsnes, E. & Tungland, E.M. & Weihe, H.J.W & Daatland, C.D. (2016). Råolje. «Alexander L. Kielland» ulykken. Hendelsen, etterspillet og hemmelighetene. Stavanger: Hertervig Akademisk.
- Smith-Solbakken, M. & Weihe H.J.W. (2013, 2. juni). Flyktningen som ga oss håpet og kunnskapen. *Psykopp Nytt*, side 46–51.
- Sund, A. (2008). *Historien om katastrofepsykiatrien som nytt fagområde i Norge*. Sessvollmoen: Forsvarets Sanitet.
- Tagesen, D. (1983). "Kielland" fra havari til snuing. Stavanger: Dreyer Bok.
- Taylor, S.E., & Brown, J.D. (1998). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103 (2), 193–210.
- Taylor, S.E. & Kemeny, M.E., Reed, G.M., Bower, J.E. & Gruenewald, T.L. (2000). Psychological resources, positive illusions, and health. *American Psychologist*, 55 (1), 99–109.
- Thoresen, S. & Tonnessen, A. & Lindgaard, C.V. & Andreassen, A.I. & Weisaeth L. (2009). Stressful but rewarding: Norwegian personnel mobilised for the 2004 tsunami disaster. *Disasters*, 33 (3), 353–368.
- Tønnesen, S. & Knutsen, T.W. (1983). *Politiets undersøkelse av Alexander Kielland etter at den var snudd*. Stavanger: Stavanger Politikammer.
- Ursano, R.J. (2007). *Handbook of disaster psychiatry*. Cambridge: Cambridge University Press.
- Van der Kolk, B.A. (2007). The History of trauma in Psychiatry. I Friedman, M.J., Keane, T.M. & Resick, P.A. (2007). *Handbook in PTSD*. New York: The Guilford Press. Side 19–36.

- Van der Kolk, B.A. & Weisaeth L. & van der Hart, O. (1997). History of trauma in psychiatry. I Van der Kolk, B.A., McFarlane, A.C., & Weisaeth L. (Redaktører). (1997). *Traumatic Stress*. New York: Guilford Press. Side 47–74.
- Van der Kolk, B.A. & McFarlane, A.C. & Weisaeth L. (Redaktører). (1997). *Traumatic Stress*. New York: Guilford Press.
- Weihe, H.J.W. (2007). *Taushet, stillhet og kjærlighet*. Stavanger: Hertervig Akademisk. Weihe, H.J.W. (2007). *Empati og etikk*. Oslo: Abstrakt forlag.
- Weihe, H.I.W. (2004). Sosialt arbeids historie. Oslo: Gyldendal Akademisk.
- Weihe, H.J.W. & Smith-Solbakken, M. (2016). *Litteraturoversikt over Alexander Kiellandulykken*. Draft manuscript.
- Weihe, H.J.W. & Smith-Solbakken, M. (2012). *Sorg. Kjærlighetens pris er sorgen*. Stavanger: Hertervig Akademisk
- Weisaeth L. (2002). The European history of psychotraumatology. *Journal of Traumatic Stress*, 15 (6), 443–452.
- Weisaeth L. (2001). Acute posttraumatic stress: nonacceptance of early intervention. *Journal of Clinical Psychiatry*, 62 (Supplement 17), 35–40.
- Weisaeth L. (1989 a). The stressors and the post-traumatic stress syndrome after an industrial disaster. *Acta Psychiatrica Scandinavica Supplementum*, 80 (Supplement 355), 25–37.
- Weisaeth, L. (1989 b). A study of behavioural responses to an industrial disaster. *Acta Psychiatrica Scandinavica*, 80 (Supplement 355), 13–24.
- Weisaeth, L. (1984). Stress reactions to an industrial disaster: an investigation of disaster behavior and acute post-traumatic stress reactions, and a prospective, controlled, clinical and interventive study of sub-acute and long-term post-traumatic stress reactions. Oslo: Universitet I Oslo.
- Weisaeth, L.T. & Malterud, K. (2004). Salutogonese og empowerment i allmennmedisinsk perspektiv. *Tidsskrift for den norske lægeforening*, nr. 1. Side 8.
- Weisaeth, L. & Mehlum, L. (Redaktører). (1993). *Mennesker, traumer og kriser*. Oslo: Universitetsforlaget.
- Wilson, J.P. & Raphael, B. (Redaktører) (1991). *International Handbook of Traumatic Stress Syndromes*. New York: Plenum Press.
- Yehuda, R. & McFarlane, A.C. (1995). Conflict between current knowledge about post-traumatic stress disorder and its original conceptual basis. *American Journal of Psychiatry*, 152 (12), 1705–1713.
- Zoellner, T. & Maercker, A. (2006). Posttraumatic growth in clinical psychology A critical review and introduction of a two component model. *Clinical Psychology Review*. 26 (5), 626–653.

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