The CRASH [1]-model for Psychosocial Crisis Intervention: from Peer Driven Early Intervention to Professional Care and Therapeutic Action with Military and Emergency Services Personnel

The Prevention of Psychological Trauma in Fire, Rescue, Police & Military Personnel

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What makes you, breaks you and ... what breaks you, makes you!

INTRODUCTION

The last decade there has been a constant increase in the attention for the psychosocial consequences of large-scale accidents and disasters throughout the world. The various domains of victimology, crisis psychology and psychotraumatology received more and more attention from both mental health professionals and the authorities or top-level management. In a lot of cases, this kind of attention was the direct result from the militant actions coming from people working at the coalface in emergency response services and who damaged themselves – or saw their collegues get hurt - by just doing their job which everybody thought – very simplistically – to be easy; after all, didn't they make the choice to be at work in that kind of environment. In the meanwhile, in most basic training courses for fire, rescue, emergency, police and military services personnel, there has been a considerable amount of effort to introduce the various concepts of stress and trauma specific to the field of crisis intervention and disaster response.

Although, there stills seems to be a lot of confusion with regard to the potentially traumatising impacts of emergency response, on the one hand, and the necessary help and support the different categories of victims should get, on the other hand.

In Europe, and more specifically in Belgium, it is only since the large scale accidents and disasters in the beginning of the nineties, that several disciplines were organised and co-ordinated in one broader operational framework, in order to assure more than necessary psychosocial support, both as an immediate response to disaster and a psychosocial follow-up on the long term. A big step in the whole process was the creation of a postgraduate course – as a joint effort between several organisations (universities) and the Belgian Armed Forces – in *Disaster Medicine and Disaster Response* in which the key personnel of the several disciplines working together at grassroots level were trained to use the same psychosocial framework and to allow them to use the same concepts in times of crisis. The following step was the development of joint regional psychosocial disaster plans for hospitals, industry plants and risk areas, and the organisation of special follow up training for disaster response networks of doctors, nurses, fire & rescue personnel, psychologists, psychiatrists, social workers, clergy, etc. Although, some problems still remain unresolved, since successful psychosocial intervention in crisis situations and disasters also requests a succesfull integration of the intervening disciplines resulting in a common conceptual basis with respect to the immediate and post-immediate psychosocial needs of stricken trauma-victims.

[1] **CRASH**: *Calamiteiten en Rampen Aanpak bij Slachtoffers en Hulpverleners*

With this paper I would like to discuss the possibilities for psychotrauma support, from the immediate post-impact psychosocial intervention to the longterm professional trauma therapy, reviewing respectively: 1) the potentially traumatising core of emotionally disturbing events; 2) the impact of this kind of events on the different categories of stricken victims; 3) the different support activities one can expect from peers, co-ordinated by peer support officers and supervised by mental health professionals; and, finally, 4) the transition from peer support to professional aid (including the different stages of the trauma therapy).

In the first place, I will highlight the potentially traumatising or *traumatogenic* impact of emotionally disturbing events, being essentially confrontations with death and not, as seen in the widespreaded used concept *critical incident*, a mix of experiences in which both threat, grief, anxiety, losses, and so many other basic emotions are intertwined. In this paper, the stress will be put on the European (French) trauma interpretation, going back to the historical roots of the French concept of *effroi* – nearly impossible to translate but being conceptually a combination of psychological terror, frozen fright, shock and anguish – as described by Crocq (2001) and Lebigot (2001; 2002).

I will also discuss the rather mechanistic use of *Critical Incident Stress Management* (CISM) as a framework of trauma support activities (Mitchell & Everly, 1993) due to the fact that lots of organisations (e.g. fire, rescue, police, hospitals, army) only offered short and superficial training to their personnel who started to apply – with or without the creation of a peer support structure – the common principles of CISM, but often without even asking whether or not the used early intervention strategies shouldn't be different according with the type of *critical incident* a stricken individual or group has been confronted with. The aim of this reflection is to provide a refreshing, divergent and non-standardised (European) view on trauma and its implications, instead of (again) elaborating on the predictible Northern American theories on trauma. Personally, during my extensive Australasian Critical Incident Stress Association (ACISA) - sponsored trip to Australia in July and August 2002, providing repetitious workshops for peer support officers and trauma practitioners, I was most impressed by the work done by people working in the remote areas with a serious lack of means and in sometimes very difficult conditions, and I have been confronted with an extensive knowledge on crisis intervention, but mostly from a one-sided point of view and based on a mechanistic intervention flowchart or written policy. It appears to me that there is still a lot of confusion with respect to psychological early interventions after large-scale accidents or disasters. Most peers and clinicians seem to know rather well the different concepts of CISM such as demobilisation, defusing, psychological debriefing or *Critical Incident Stress Debriefing* (CISD) but lack both the historical and theoretical context of debriefing and the core of the debate on the efficacy of psychological debriefing which appears in most trauma conferences (e.g. from the *International Society for Traumatic Stress Studies*, the *European Society for Traumatic Stress Studies*, the *Australasian Society for Traumatic Stress Studies*) and divides the trauma field. I will elaborate on the point that this debriefing controversy is more like an artefact due to the lack of good sense and field experience of many trauma researchers who seem to be surprised that it is simply impossible to avoid psychological trauma by organizing single session debriefings? – cf. the wellknown article of Van Emmerink (2002) in the distinct medical journal *The Lancet*. Practitioners, working at the coalface,

understand that immediate or early support, acute intervention and first psychological aid are very different depending the type of victims one is working with. They would not debrief disaster victims, burn injury patients or rape victims, for example. These interventions will be discussed during this keynote presentation, using practical examples and recent publications (Deahl, 2000; Solomon, 2001; De Soir & Vermeiren, 2002) as a starting point.

In the second part of this paper, the philosophy of the **CRASH-model** will be discussed starting with the introduction of the *psychosocial matrix* in which the type of psychosocial crisis intervention is tailored to both the moment of intervention (during and immediately after the event, in the post-immediate stage and in the long term) and the type of victims one is dealing with. This angle of incident leads to a 3x3 matrix in which primary, secondary and tertiary prevention will be organised for primary, secondary and tertiary victims. The correct use of this matrix along with the good sense and hands-on experience of the field clinician, respecting the basic principles of psychological first aid, should at least allow a rudimentary *emotional triage* leading to an adequate set of support activities, organised and carried out by peers, co-ordinated by peer support officers and supervised by mental health professionals. Finally, I will reflect on the moment on which there has to be a transition from peer support to professional aid (including the different stages of the trauma therapy).

Throughout this paper, I will provide a number of illustrations, both from my own practice as a trauma counsellor and therapist, and from my field experience at grassroots level in a fire and emergency medical service. The aim will never be to criticise existing models or to point the finger at certain people who tried to do their best in given situations, but to generate ideas and questions will should allow us to elaborate appropriate guidelines for good practice in coping with human crash situations and which should enhance our way of understanding the noxious impact of traumatogenic events.

I hope that with this paper, I can contribute to an increase of quality in trauma intervention in the Australasian region, so that both trauma practitioners and peers start to invest more energy in analysing emotionally disturbing events and their impact, instead of just considering themselves and their practice as part of a policy based on a "*one size fits all*" – philosophy.

THE ACUTE REACTIONS OF VICTIMS OF EMOTIONALLY DISTURBING AND POTENTIALLY EVENTS

The effects of emotionally disturbing events: direct victims and significant others in search of the right expression of their emotions

In the following part I will try to put some clarity in the variety of effects of emotionally disturbing and potentially traumatic events. I would like to start with putting aside the widespreaded and overgeneralised concepts of *traumatic event* and *traumatic stress*, thus trying to reserve these terms for events which are really traumatising and to watch over the restricted use of these terms. The traumatising character of an emotionally disturbing event is always the result of a personal and subjective interpretation of this event by the individual struck by the event and not merely dependent from objective cues in the given event. Both in the literature and

the spoken language there is a too widespread use of the term *trauma*: these days, everything seems to become a trauma, and the result is then that the stricken victims develop a subsequent trauma after surviving one ...

As such, the causalilty between events and effects is very often unclear.

As already stated in the introduction, this conceptual lack of clarity influences the practice of psychosocial crisis intervention and early intervention. The best illustration being the whole psychological debriefing controversy and whether or not the CISM-techniques are effective. While the techniques of psychological defusing and debriefing (Raphael, 1986; Mitchell & Everly, 1993) were originally developed to support professional (or professionally trained) caregivers – such as firefighters, rescue workers and the personnel of police or emergency medical services – they have also been widely used (and researched upon) to support all kinds of victims of critical events. The problem being that the definition of a critical incident has always been very vague and that these CISM-techniques have rapidly conquered the whole trauma field, supposed to help the direct trauma victims, their significant others and all the other involved categories of stricken people. Both CISD – being an integral part of CISM – and the latter concept of early intervention became a container concept of various kinds of interventions for various kinds of victims. In the meanwhile, a whole disaster business (Deahl, 2000; Shepherd, 2001) has been developed, and professional caregivers or high-risk organisations (e.g. banks, petrochemical industry, rescue services, army, police) were urged or legally forced to "do something" to support their personnel exposed to various kinds of emotionally disturbing and potentially traumatising events. For further in-depth discussion, I would like to orient the *multilanguage skilled reader* towards the extensive review and discussion work on stress, trauma and early intervention in recent European publications ((De Clercq & Lebigot, 2001; De Soir & Vermeiren, 2002 being the only book till now in which both the Anglosaxon and French/Latin interpretation of trauma and early intervention are developed).

In this paper, I qualify an event to be *emotionally disturbing*, when this event is abrupt and shocking, and involves disturbing feelings of anxiety and/or depression, followed by guilt and/or shame and/or sadness and/or rage. By it's sudden impact, the event temporarily (and more or less severely) disrupts the emotional and/or physical and/or cognitive equilibrium of the individual and their significant others, being struck by the secondary impacts of the event. Examples of this kind of events are the painful or sudden death of a friend or a relative, seeing severly injured or dead people and other important losses. These events are shocking, instead of directly traumatising, if they did not lead to a subjective and/or objective confrontation with death in the mind of the stricken individuals or if they did not involve a fight to survive during which the stricken individual(s) was (were) confronted with a state of psychological terror, frozen fright and unspeakable experiences which are impossible to symbolise nor verbalise, or in which there was a complete disruption between *signified* and *signifier* (cf. Infra).

In Antwerp (Belgium) there has been a very sudden and severe hotel fire at New Year's Eve in which more than 10 people lost their lives and 150 people were injured (approx. 30 people were severely burned and remained in burn treatment centre for months). The surrounding people, living in the same neighborhood could

also have been traumatised, but I tend to consider this event as emotionally disturbing (= temporarily disruptive impact) for the involved firefighters, police personnel and emergency medical services.

If the secondary or tertiary stricken victims (respectively significant others and involved professional caregivers or policemen) did not get personally involved during the forementioned hotelfire or if they did not go through a mental process in which they identified themselves with the stricken victims, I do not consider this event to be potentially traumatising for the categories of victims. Although, traumatisation can appear due to a process of identification with victims or through the on-scene contact with friends or relatives (or victims looking like friends or relatives) and especially children, always considered to be the ultimate victims. In other cases, such an event can also trigger[2] earlier trauma and thus lead (again) to posttraumatic sequelae, aggravating the already damaged mental structure of the stricken individual.

We would like to qualify an emotionally disturbing event as traumatic if this event satisfies the next criteria: (1) the event is sudden, abrupt and unexpected; (2) involves feelings of extreme powerlessness, horror and/or terror, disruption, anguish, and/or shock; (3) implicates vehement emotions of anxiety and fear of death, due to; (4) the subjective (feelings) or objective (real, direct) confrontation with death (i.e. the real or felt severe threat to one's physical and/or psychologolical integrity or the integrity of a significant other). What we consider to be central in this definition is the confrontation with death: the traumatic event confronts with a world which is unknown, a world of cruelty and horror, the world of the death in which certainties, norms and values does not (seem to) exist anymore. The world of the death which is the world of the unspoken horror – *le néant* (*the nothing*) as the French call it – in which everything becomes senseless, which is impossible to describe or to put into words, since the human kind has no words or concepts to describe the real characteristics of death. This is the (under)world in which the survivors of terrible (industrial) accidents, wars, fires, explosions, earthquakes and floods, macro- or microsocial interpersonal terrorism or severe threat, in which overwhelming forces annihilate human values, norms and/or life, impressive amounts of violence and power reducing human being to dust, eliminating each form of life, leaving the survivors in the sometimes extremely short but impressive silence of emptiness, complete abandonment and loneliness, typical to the immediate aftermath of trauma, in which victims *awake* again and try to get in contact again with *the spoken world of the living*.

In the above description, the illusionary state of predictability and security, respect for the human being (or life) and its norms and values, and/or its basic assumptions

[2] The principle of *triggering* is one of the central problems in the working-through process of trauma victims. A psychological trauma is always characterized of a combination of several symptoms clusters, normally; 1) the original potentially traumatising event being a more or less direct contact with a life-threatening situation; 2) a cluster of symptoms in which the original event is re-experienced; 3) a cluster of symptoms in which the original event is denied or avoided; 4) a cluster of symptoms characterized by hyperarousal; and, 5) a social dysfunctioning of the stricken individual. When trauma victims are confronted by various stimuli which make them remember or think about the original traumatising event, these stimuli can TRIGGER the same reactions (event dissociative responses) as the original event itself. The human brain does not seem to make a difference between the orignal event and the re-experienced events with a *neuro-biological storm* as a consequence.

and certainties about the world we are living in, makes place for a situation characterized by deep physical and/or psychological injury, irreversible damage, humiliation and destruction beyond repair.

The overwhelming impact of this close encouter with death involves a typical situation of frozen fright and psychological terror which can be resumed in the French concept *effroi de la mort* as decribed by Lebigot (2000, 2001) and compared to the old Greek myth of Perseus by Crocq (2000; 2001).

In summary, Lebigot (2000) states that : "*The traumatic neurosis confronts the subject to the effects of dread in the psyche, that worsen everytime the syndrome of repetition displays. First of them is the embedment into the psychic apparatus of a one-self as dead picture, and the loss of "the immortality illusion". The traumatic moment is an exclusion moment too in which the language disappeared, an unspeakable moment of dereliction creating feelings of shame and abandonment. At this transient confrontation to nothingness under cover of dread realizes a transgression that the subject will bear as a fault. The various psychopathological manifestations of the traumatic neurosis originate from these phenomena, that enable a first understanding level for the expressed suffering. They also give useful indications about the ways of psychotherapeutic interventions according to the evolution of the disease (…)*".

In *Le Retour des Enfers et son Message* (*Coming back from hell and its message*), Crocq (2000) uses the next description as a summary of his ideas with respect to trauma and its origins: "*Hell is spontaneously evocated in the speech of the traumatised. In examinating the myths and legends about the coming back from hell and the texts of writers who were victims, witnesses or dreamers of a trauma, we bring out what the coming back from hell and its message are. On the one hand Gilgamesh, Sisyphe, Orpheus, Er, Patrocle and Dante, on the other hand Agrippa d'Aubigné, the sergeant Bourgogne, the colonel Chabert, Doïstoievski, Dorgelès, Genevoix and Semprun show how the coming back from hell can perpetuate the remembrance of horro and misfortune as well as induce the subject to assume his destiny in a relation of transparence with others and to think about this new knowledge of the origins into which the confrontation with the real of death and nothingness has initiated him* (…)".

We will describe the deep emotional and psychological consequences of this close encouter with death in the next testimonies of trauma survivors of the Switel hotel fire – due to a backdraft in the ballroom of the Switel hotel at during the New Year's Eve party in 1994/1995:

"I was playing trumpet on the podium when suddenly a fireball appeared in the rear of the ballroom. In just a few seconds the fireball rolled through the whole ballroom. The lights switched off, I heard the loud sounds of explosions and I heard the people screaming and running in search of rescue. Then it seemed as if I heard nothing anymore. The only sensation I still remember is the enormous pulse I felt in my chest and the overwhelming black smoke which made it nearly impossible to breathe. The new year's party suddenly became like hell: smoke, screaming and the smell of burnt meat. Herds of people running to find an escape which seemed impossible to find. These sensations would later be the gist of my nightmares. I

don't know why, but I was running in the opposite direction to all the other people. I would never know why. The heat in the ballroom seemed to become unbearable. The only thing I wanted, was to survive. And I kept saying to myself: "you will survive". On pure intuition, I ran through a door and arrived in a small kitchen in the rear of the ballroom. On hands and knees, I tried to find a way out. It seemed hopeless. Completely exhausted and in total desperation, I decided not to fight any longer against fate and prepared myself to die. But, sitting down against a wall, I suddenly felt a last rush of energy which made me jump up and run, like being out of myself, hitting a wall, then a door, and ... there I stood, outside the building, in the pouring rain. At first, it seemed as if everything around me happened in slow motion, and like a movie just playing in front of my eyes. Then, reality and sound came back to me and I realised that I just escaped from death. In these first moments, I didn't realise that I was hurt, but after a few moments I started to feel the pain from my burn injuries. My hair was gone and my skin was hanging down from head and hands. It felt as if thousands of needles were penetrating my body. I was severely burned and started to feel more and more pain as the time went by. At that moment, I did not realise that this would be the start of a recovering and rehabilitation period stealing several years of my life (...)"

- *De Soir, 1995 – Unpublished report on the Support Activities for the Switel Victims .*

Another Switel-survivor expressed her feelings in the following way:

"We were sitting at a very pleasant table and having a great time. Suddenly somebody shouted: "My God, look what a flame". That same flame would soon become a real fire-ball leaving no time and space for escape. I saw everything happen in just a few seconds and thought that it was an illusion. It just could NOT happen during such a fantastic evening. Not here. Not now. But it soon became very serious. Somebody grasped me by the arm and pulled me away from the table. From then on, I acted like an animal. I was running without seeing in the black ballroom, and without even knowing where I was running to. While running, I felt the desperate attempts of people lying on the floor and desperately trying to get up. I really did not fully realise that I was actually running on top of other people. After a while, I passed out, I lost consciousness. I was wearing a nylon dress that evening; a very short dress with open shoulders. That is why I was severely burned. When I came back to consciousness, I did not feel the pain. I did not realise that I was wounded. I remember that we were evacuated with military helicopters to a military hospital. I thought that I was in the middle of a war. Or that there had been a terrorist attack. Or that there had been an explosion in our hotel. The whole military context justified these impressions. It would have made sense. Once in the hospital, the nurses started to undress me and to cut my long hair. I was very angry because it took years to have my hair so long and the hairdressing had cost me a small fortune. But, they told me that I was severely burned and that they would have to put me to sleep for at least a couple of weeks. Three weeks later, I woke up with a tube in my throat, which would stay there another two weeks. Impossible to express what you feel during such moments. A psychologist was sitting on my bed when I woke up. Immediately I wanted to know how my husband had survived the hotel fire, but the psychologist took my hand, looked me right in the eyes and said:"I'm sorry, both your mother and your husband died". My whole world collapsed. It would

even become worse when I heard from the doctors that my left hand, ears and nose, burned to the third degree, had been amputated and that I would have to go through a lot of other surgical operations. As a young, successfull and beautiful woman I went to the Switel hotel to celebrate New Year's Eve, but several weeks later, I would wake up as a monster, mutilated for life.

- DE SOIR, 1995 - Unpublished report on the Support Activities for the Switel Victims.

Traumatic events like the above experiences of the survivors of the Switel hotelfire shake the very foundations of the human being: you cannot expect anybody to cope with this kind of events without suffering long term psychological damage. Beside the feelings of extreme powerlessness and helplessness, and the overwhelming impression of deep penetration into one's own physical and psychological integrity, trauma survivors will have to cope with the potentially ego-destructive emotions of permanent uncertainty, (survivor) guilt, anxiety, shame and loss of control. The more there has been severe physical injury, the longer the recovery and *working-through process* will last, and the more we can be pessimistic about the prognosis in the long term.

There is also the loss of *connectedness* with the surrounding significant others and the life environment in general. As Lebigot (2001) states, trauma survivors have seen the "*reality of death (**le réel de la mort**)*" and lost the connection with the world of the living.

Without going into the details, I would like to discuss the various aspects of the model I use to understand *the life-threat and emotional-shock-processing* in a chronological way. Looking back at the stories of the Switel survivors, this interpretation – which finds its inspiration in the animal world (cf. the way animals act in a predator-prey context) - will be easy to understand. It is important to carefully think about the different possibilities for immediate trauma-support during these different stages of traumatisation.

During the *traumatogenic* (potentially traumatic) event – in what we will call the *peritraumatic stage* – the direct victims act in a way which is very significant for their survival and very comparable to what we find back in animals while they are threatened by a predator (Nijenhuis, 1999). In most trauma accounts we can easily find back the next successive stages: 1) *immobility* – in nature this kind of immobility (cf. concepts as animal hypnosis, tonic immobility, frozen fright) sometimes means "survival" and "escape from death" – and *total inhibition*; apparently, this *freezing* happens in a state *apprehension of danger and attempt to find the right or most adequate survival response*); 2) *flight*, if there is enough time and space for escape, otherwise numbness and freezing might return, or even the opposite reaction pattern, panic and senseless activation; 3) *fight*, for as long as the fight to survive has a sense and offers a chance to survive in the stage of the traumatisation process; 4) *total submission* – the moment on which the stricken victims experience overwhelming power and violence, of the predator, the perpetrator, technology or simply nature; it seems as if they understand that fighting death has no more sense; it is at that moment that *dissociative behaviour – alienation, depersonalisation, anaesthesia, analgesia, narrowing of attention, tunnelvision, out-of-body*

experiences, derealisation, etc (cf. Infra) - sets in, as if this would allow the victims to die without feeling pain or without even knowing consciously that they are on the way to die; and finally, the last stage in this traumatisation sequence, if the danger or death threat disappears; 5) *recovery, recuperation* and *return of pain sensitivity, partial consciousness of what happened, widening of attention, e.a. behaviours that are typical for a return to reality*. But this reality will never be the same again if one has seen '**death**' right into the eyes and has been confronted with the unknown, wordless and unspeakable world of the death. For a further analysis of this animal model of traumatisation and an in-depth discussion of trauma and dissociation, and the disintegrating effects trauma can have on the psyche and personality of victims, I would like to suggest the reading of the recent work of Van der Hart (2003), and Van der Hart, Nijenhuis & Steele (2001).

After the return from death, as described by the Switel-victims and the numerous trauma victims I had in therapy (and who lived through wars, motor vehicle accidents, rape, assault, fires, hostage taking, etc.), the fragmentary and wordless trauma sensations and experiences will have to be put into words in order to recover from the trauma. Although, the world will never become the same again. Trauma survivors will have to go back into the *trauma labyrinth*, in search for a way to **express** what they lived through, in search for a story and a meaning which could **reconnect** them again to **the world of the living –** *the world of those who speak*, allowing them to **reframe their world**, **reconstruct** their basic assumptions and beliefs, and become one bio-psycho-social whole again.

In the first stage – which I will call the *acute (or immediate) trauma stage* - in the immediate aftermath of trauma, right after living through the destructive and potentially traumatic impact, trauma survivors are confronted with a confusing mix of feelings of *disbelief, denial, relief and despair.* These moments of disbelief and denial - during which survivors yearn for rest, recuperation and safety – will be quickly disturbed and/or alternated by sudden and intrusive recollections and re-experiences of the traumatogenic event, during which the victim acts as if the event itself was reoccuring and the death threat was there again. The brain does not seem to make a difference between the original event and these intrusive recollections. The trauma survivors keep asking the same questions: *What happened? How did this happen? Who else is injured (or dead)? Why did this happen (to me, or to us)? Why now? How will I (we) ever recover from this?* They are in a desperate need of information. Still shaking from the event which just struck them, feeling the sequelae of the hyperarousal they needed in order to survive, still a bit disoriented and heavily impressed by the close encounter with death. During this stage, trauma survivors have predominantly pure material and practical needs. They keep asking themselves: *How will I eat? Where will I sleep? Who will pay for this? How can I tell to my relatives what just happened to me? How do I get home? What about my old sick mother and how will she react? Will I ever find the energy and courage to go back to work after this. Etc*.

These are all problems for which they need a quick solution. Normally, this stage will take at least from a couple of hours to a few days during which the physical recuperation from the event and the neuro-biological storm it provoked inside the body might be more important than the psychological recovery which will take months or years.

This initial stage will be followed by a *trauma working through stage* – which I will call the *post-immediate* or *post-acute stage* - during which the trauma survivors will have to: 1) accept what happened to them; 2) confront the negative emotions which are associated with this kind of events; 3) reach a daily life-equilibrium again, or try to return to normal life activities; 4) work through their experiences; 5) search a way to express and put into words their trauma experience; and, 6) find a meaning and a story, in order to integrate what happened in their personal life story. Numerous models are offered in the current trauma litterature, but I think that most of them take more or less these different stages into account.

In my practice, I tend to take an intense *working through stage* of three to four months into account. If possible, I try to allow trauma survivors to work through their trauma experiences in a collective way, allowing them to mutually share their sensations and experiences with each other, in search for both an individual and a collective healing theory which makes sense in their own minds. During the *whole working through stage*, I would try to organize regular talk sessions and meetings, taking the **BICEPS[3] & FIRST[4] – principles** into account, both in the immediate and the post-immediate stage.

The most trauma survivors will have an urgent need to really understand what happened to them, how it happened – a.o. this will be achieved through a detailed collective reconstruction of the event, taking all possible sources of information into account (television reports, newspaper articles, individual accounts and stories, etc.) – and they will search for explication, understanding, compassion, recognition and meaning. The longer they stay alone with these needs, the longer the will be haunted by vivid, intrusive and/or weird reexperiences of the event, as if their minds look for understanding and completion of the event.

The intrusive recollections and reexperiences, while the survivors return to the hyperaroused states coupled to the repetitious reminders of the original event – and which are so typical for the *fight to survive* - alternated by moments (or periods) of denial and avoidance, potentially leading to social disruption and isolation, are the signature of what is described as *post-traumatic stress disorder* (and *acute stress disorder* if the symptoms last between two days and four weeks, and dissociative symptoms are added to this clinical image) in the *Diagnostic and Statistical Manual for Mental Disorders-IV* (*American Psychiatric Association*, 1994).

In this paper, I prefer the phenomenological side of trauma reactions and post-trauma sequalae instead of this typical Western (Northern-American) trauma concept which has been a good start for the renewed (essentially descriptive and statistical) study of trauma, but which is not sufficient to fully understand the

[3] **BICEPS** (Sokol, 1986) is the acronym of *Brevity – Immediacy – Centrality – Expectancy – Proximity – Simplicity* - derived from the originally PIE (Proximity-Immediacy-Expectancy) – approach (Salmon, 1919).

[4] **FIRST** (De Soir, 2000) is the acronym of *Family Support* (mobilize the available natural help) – *Information* (True information about what happened) – *Rituals* (provide a framework for working through, mourning and grieving, after suffering human losses) – *Secondary Victimization* (avoid secondary victimization by institutions, authorities, etc.) & *Recognition* (and respect for what victims lived through). I described these principles as the **Big Five of Victimology** in earlier publications.

different needs of trauma survivors and does not provide enough explication about trauma-related dissociative disorders (still described as a distinct nosographic category in DSM-IV).

Finally, I would like to mention the third stage on the time-axis of *trauma processing, assimilation* and *accomodation* – which I will call the *trauma fixation* or *chronification stage* - in which the trauma survivors get stuck, after several months during which they tried to cope with their experiences but which lead them to a stage in which their initial fears and complaints got even worse, omnipresent and intense, forcing them to invest nearly their complete quantum of daily energy in avoiding the trauma-related symptoms or trying to cope with the vivid, threatening reexperience attacks shutting down their ability to readapt to normal life again.

For one reason or another (e.g. previous trauma, concurrent life experiences, personality characteristics, extremety of the event), the *salutogenic* (= *recovering, health promoting and rehabilitating*) physical, emotional and cognitive working-through of the trauma stopped and urges for professional trauma care and therapy.

It seems to me as if adequate early trauma intervention and support can lessen the suffering over trauma survivors, but will never prevent them from developing long term sequelae or chronic posttraumatic stress disorder. Once the traumatisation has taken place, the damage is done and nothing can revert this. As I will describe in what follows, I think that at least in some cases, there is a possibility for on-scene (peritraumatic) primary prevention of posttraumatic sequelae, but these chances are rare and often unexploited.

The effects of emotionally disturbing events: firefighters, paramedics, police and professional caregivers in the labyrinth of operational stress and trauma

Life-threatening events and large-scale accidents, calamities or disaster situations are not only potentially traumatic for the direct victims and their significant others but the can also traumatise the involved caregivers.

Everyone who starts out as a firefighter or a paramedic may reasonably expect to be confronted sooner or later with emotionally distressing, shocking and potentially traumatic events. As in all high-risk and vocational professions, police personnel, money couriers, prison guards, emergency medical personnel, it is to be expected that these persons as well as their employers are well armed to deal with these impacts. In fact it is generally assumed that the consciousness of having to work with living, injured or dead victims of fire or serious accidents, natural disasters, violent crimes, hostage situations, shootings automatically leads to good psychological assimilation. This is absolutely untrue! I have led several field studies (DE SOIR, 1995, 1996, 1997), based upon semi-structured clinical interviews with firefighters and paramedics, which have shown that one in ten firefighters or ambulance personnel have not come to grips with earlier traumatic experiences incurred during an intervention. The short- and long-term effects of intense and sudden stress as well as the slowly accumulating stresses appear to have a very destructive effect on the rescuers' and caregivers' well-being. Without noticing it, they get hard hit medically, psychologically, socially and relationally. The world of firefighters and emergency medical personnel is a very particular and closed one to

which an outsider is only reluctantly admitted. Many earlier effects at mending the detrimental effects of post-traumatic stress disorder in firefighters have failed because the projects had little ecological validity or because the initiators approached the fire brigades or emergency medical services on a purely commercial basis. It is common knowledge that psychologists, trying to work with rescuers as specialists do with their patients, are rather seen as a *spy instead of psy …*

Firefighters, paramedics, emergency medical nurses, for example. want to be heard, supported and helped by someone who is as alike to them as possible, who shares the same meanings and who lives in a similar world. The problem with many fire brigades is that as an organisation they suffer from the "*not-invented-by-engineers-syndrome*". The fact that the management of many large and semi-large fire brigades is in the hands of engineers, who have had a minimum of training in interpersonal relationships, human resources management and leadership considerably complicates the introduction of the so-called soft values. Many staff members automatically become officers because they are engineers, they occupy themselves mainly with very technical issues with respect to fire prevention, risk management, firefighting andrescue techniques or procedures. Thereforee empathy with the purely human problems at grassroots level – where the average educational level is usually lower but the average number of emotionally destabilizing interventions higher – is not always easy.

Another fault line in many brigades is the one between young and old: rank or experience does not necessarily equal knowledge. Many young firefighters or ambulance personnel recently obtained a number of degrees which they eagerly use against older colleagues.

Emotionally disturbing or traumatic interventions can cause many physical or psychological complaints. Possible symptoms are withdrawal from social life, avoiding difficult situations, agitation and nervousness, heightened irritability or downright aggression (sometimes also within the family), backaches, headaches, bellyaches, chest pain, re-living the incidents in various forms (nightmares, flashbacks, etc), concentration problems and jumpiness. These are manifest symptoms of post-traumatic stress.

At the time many studies (Aptel et. al., 1993) indicate clearly that there is a marked cardiovascular pathology in firefighters and paramedics. There are noticeably more victims here than in the average population. Firefighters and paramedics appear to have more cardiovascular risk factors like cardiovascular hypertension, overweight and hypercholesterolaemia. These medical risk factors are further enhanced by the virile and macho culture that usually reigns – albeit sometimes as a flimsy varnish – within fire brigades and emergency medical services.

Firefighters and masculine emergency medical personnel usually consist of men who have been educated to believe that crying is a sign of weakness and/or for girls. They have become experts in stifling pain and hiding emotions with black humor and cynicism as only outlet. As a matter of fact it was this "outlet" of safety valve that permitted the firefighters and paramedics to maintain a workable psychological distance from the victims. During their work, often in gruelling

circumstances, they have learned to concentrate on technical manipulations, and to suppress their emotions. This behavior has often been explained as insensitivity in the past, but the way in which firefighters deal with their feelings appears to be very functional. Further on in this text a number of mechanisms (e.g.. black humor) are discussed through with which firefighters can keep the necessary on-the-spot distance form their victims and protect their own psychological integrity. Yet this John Wayne-like behavior, - cf. the so-called *John Wayne syndrome* (Mitchell, 1983; Becker, 1989) – may afterwards, when the excitement of the intervention is over, the armour is dropped and the fire-fighters/paramedics wake from their functional tunnel vision, lead to a host of problems.

Prototypical male and extrovert behavior like smoking, drinking, loud bar-room discussions, taking up a lot of space in the group, telling (dirty) jokes and bragging about their deeds seems to be reinforced by the specific profile of fire-fighters and paramedics. In fact, psychologically speaking, they are all asking for a lot of attention …

The fireman is typically very *action- and goal-oriented*, dedicated, very motivated, ambitious and prepared to take calculated risks. The word “failure” is not in his dictionary. And deceased victims are equalled with failure (or coming too late). The often overwhelming powerlessness coupled with the inability to reflect on emotions turn many fire-fighters into prospective burnout victims. Burnout was first decribed by Freudenberger (1987) as a specific form of depression found in all types of practitioners of social medicine. But in many elder firefighters, emergency medical nurses and paramedics the symptoms of burnout can be traced one by one. Unwillingness or inability to talk about impressions and accumulating emotions inevitably leads to problems in the long run. Some leave emergency medicine or rescue work after a few years, startled and scarred by what they had to go through. Five years of service in fire fighting or emergency medicine – certainly for volunteers – seems to be a critical period. If they succeed in finding a balance with regard to traumatising interventions and the time they invest in voluntary aid within those five years, the chances of remaining with the corps for a longer period increase. One of the first important hurdles is learning to deal with feeling of guilt and impotence.

Firefighters have to learn to accept that they should not be too harsh on themselves because there just is no coping with some situations. This is reality! Others leave their jobs with a bitter feeling of failure after a long and strenuous grapple with a passion got-out-of hand for violence and loss. Many firefighters and caregivers are in fact “traumajunkies” who do not like periods of inactivity. The escape valve appears to be yet again – not surprising – black humor, irony and cynicism. Within these firefighters and caregivers we can imagine the physical, mental and emotional exhaustion as an ever-increasing chaos. The person concerned has to invest more and more energy in avoiding confrontation with his proper experiencing of past traumatic interventions. Alcohol and hyperactivity (often in occupations that increase social isolation) are well-used ways of realising this escape. They spend a lot of time in the fire department, occupy themselves with odd jobs, play cards and drink together, go through past interventions in the pub, in their own language which is a mix of humor and bitter seriousness, and keep outsiders at a safe distance. In this way they share an important amount of time together. There is a strong mutual

bond among firefighters and paramedics of this kind. They remain, albeit from the sideline, and even when retired, very involved with everything the corps organises.

An enormous amount of data on how firefighters, paramedics and emergency medical personnel manage stressful events in practice was generated by travelling through different European countries, Australia and New Zealand. General exercises (a minimum of three hours) on the management of emotionally disturbing (potentially traumatising) interventions in the fire fighting and rescuing practice, or workshops and seminars, were held in more than two hundred fire brigades, ambulance services and emergency medical departments. They consisted of three parts: an experience-oriented analysis of traumatic interventions, a practice-oriented discussion of real-life situations and a theoretic (psycho-educative) placement of the mechanisms and phenomena under discussion. These course-and-discussion activities demonstrated in the first place that firefighters and crisis responders are *doers rather than thinkers and talkers*. But once they start talking …

During the scores of exercises with fire fighting and emergency medical personnel it became increasingly clear that it is essential to know the world of fire fighting through and through, or, ideally, to be part of it to establish an efficient system or peer support.

Firefighters and paramedics do not tolerate busybodies and does not want to feel a victim. In this environment it feels as if the counsellor himself needs to have “a little cancer” to be able to deal with cancer. Counselling by a psychiatrist, psychologist, therapist, social worker or mental health worker in general from a viewpoint of power and degree-based knowledge does not work with firefighters and crisis responders. As stated before, it will be important to treat the fire fighting and emergency medical personnel as equals to obtain a mandate of equality and from there on to start a discussion about an emotionally disturbing (potentially traumatising) intervention. This insight recently motivated me to create the *European Association of Fire Psychologists*, an association reuniting mental health professionals being both a trained and experienced firefighter and/or paramedic, and a clinical psychologist or psychiatrist.

Firefighters and paramedics realise that the borderline between success and failure, between saving and not being able to save, and therefore between being a hero or a “victim” is very thin indeed. First-line counselling will therefore have to be oriented towards creating an atmosphere of confidentiality and mutual understanding to be able to discuss everybody’s feelings about the intervention, followed by legitimizing and normalizing possible reactions. Using the time- honored phrase on them, that they are having “*normal reactions to an abnormal situation*” (but without using this phrase to stop them from further open expression of emotions) does them good.

In the group the following emotions usually surface: often overpowering impotence, a hated feeling of helplessness, a paralysing grief about the human (and very recognisable) suffering of the victims, the intense guilt of not having been able to more and the anger generated by all this. This is not what they joined the fire brigade or the ambulance service for, whatever the average person may think about it. But what is very important in the point I want to make in this paper, is that their emotional intervention-based experience is in most of the times essentially to be

seen as a depressing one rather than one belonging to the category of life-threatening and traumatic experiences. It is quite obious that different kinds of interventions need different kinds of post-intervention support. This is an element which seems to be underestimated in the current trauma research in which no difference is made between emotionally shocking and depressing events on the one hand, in which grief about the losses suffered, is an essential part of the working through process, and the life-threatening, high anxiety and high arousal events, on the other hand, in which immediate arousal reduction and physical recuperation seem to be much more important than immediate emotional coping. Before treating the sequences of crisis psychological assistance and going into the details of what will be called the psychosocial matrix of crisis psychological assistance, it is important to consider the emotionally disturbing intervention as a difficult puzzle, from which the pieces have to be put back together again, to allow the stricken firefighters and paramedics to fully understand the context in which the intervention took place. It is precisely this context that will determine the shape the group counselling is to take; the so-called *Supervised Peer Debriefing*, as is used in practice by the *European Fire-Fighter & Emergency Medical Stress Teams* and instructed by the trainers belonging to *European Association of Fire Psychologists*.

The traumatic intervention as a puzzle: the multidisciplinary character of Psychological shock assimilation after a large-scale intervention

As already said, the acute psychological experience of an emotionally, potentially traumatising, disturbing event is one of extreme powerlessness and loss of control. The victim loses his mouth as it were as if his willpower is eliminated. At the same time the emotionally disturbing event causes a sudden and unexpected dislocation of the work and/or living conditions. Nothing will ever be the same. There is always the threat of death or serious damage to psychological and physical integrity of the self or the other, involved in the traumatic event. Through accidents with children and/or acquaintances the illusion of invulnerability –"*accidents only happen to careless or unknown people*" – is seriously compromised and during and certainly after the event there occur intense feelings of guilt, shame, fear, anger, etc.

The stricken caregiver can, in many instances, no longer maintain his image of the world. The basic assumptions and expectations about life are no longer valid. Everything, even in the practice of fire fighting, becomes dishonest, unjust, unpredictable and dangerous. There is danger behind every corner. Training no longer stands for controllability. Every intervention means "danger". Partners become afraid with every call up. Etc, etc…

As a matter of fact, it becomes increasingly difficult for the modern firefighters or paramedics to recognise and understand each other with the special highly technological and protective clothing they are wearing. Participation in any intervention becomes more anonymous.

Let us first examine the case of firefighters working on the disaster or accident scene. For the firefighter, it is even difficult to hear or recognise his colleagues. A modern firefighter's gear protects him from mechanical impacts, deafening noise and radiation or contact heat. In reality this makes a firefighter more or less sensorially deprived or *contact-dead*. Specifically older and more experienced

firefighters have problems with this situation. They used to “feel” their work, the fire, like a living thing. They were lead by warmth and hearing. Now the firefighter is partly isolated. This does not only affect operational sensitivities, like “feeling” or “smelling” this risk for a backdraft or correctly evaluating the chances for a flash-over during a fire. As a socially involved person, and as he learned in fire school, he has to rely strongly on direct contact with his colleagues and on teamwork. This is very difficult under these circumstances! Our hypothesis with regard to this problem is that this *nearly-work-alone-in-group* situation will considerably increase the intervention stress and affect the coping skills of firefighters. Because these facts make the firefighters concerned very insecure. Specifically in the initial phase of the intervention and if he anticipates that the psychological burden of the intervention will be beyond his means, physical arousal is considerable. It will be in large part due to this arousal that the firefighter, nurse, emergency doctor or policeman will only be able to recollect part of the events. The same heightened arousal will cause them to make more errors, to think incoherently and sometimes to make the wrong decisions. While this physical arousal is necessary to become operational and alert, too much of it during traumatic interventions may cause diminished attention and increased human failure. Nevertheless, firefighters refuse to accept this because it is against their *code of honor*!

This *phenomenon of narrowed attention* – which could be compared to the victims’ peritraumatic dissociative responses - is known in literature as the *Easterbrook-claim* (Easterbrook, 1959). According to the *Easterbrook-claim* the *physiological arousal of emotionally disturbing events leads to a narrowing of attention*. This narrowing of attention leads to a diminished capacity to take cues or information-elements from the environment in which an event takes place (Bruner, Matter & Papaner, 1955; Easterbrook, 1959; Eysenck, 1982; Mandler, 1975). It is therefore very difficult for the caregiver in question to come to a meaningful reconstruction of the whole event. To him it is like a giant puzzle from which he only holds a limited number of pieces. This makes it very difficult for him to come to a global image of the intervention. Yet this is indispensable to work through the event in a healthy way. If we couple the insight that information from emotionally disturbing or shocking events is usually badly encoded to the individual opinions after the facts, we have reached the very core of the problem: the fantasy around emotionally disturbing and/or traumatic events and the lack of true event-based information are often worse than the reality. This is true for victims – for example MVA-victims – and even for their caregivers. This is one of the (theoretically based) reasons that direct trauma victims and their caregivers can mean a lot to each other when it comes to the working through process which follows traumatic events.

But there is a problem: on the one hand scientists claim that the high emotional content of events can undermine the memories of them (Kassin, Ellisworth & Smith, 1989; Yarmey & Jones, 1983), and that on the other hand some researchers ascertain the opposite: the high emotional content of events would make the memories more exact and detailed (Christianson & Loftus, 1990a). For example the studies on *weapon focusing* (Cutler, Penrod & Martens, 1987; Kramer, Buckhout & Eugenio, 1990; Loftus, Loftus & Messo, 1987; Maas & Kohnken, 1989) have determined that certain stress inducing objects such as fire-arms or knives used in crime may focus the attention of people and thus improve the accuracy of the memories of the one, to the detriment of the other details in the given situation.

Given these scientific insights, it appears as if direct victims' reactions are different of the reactions of their caregivers. Mutual contacts on these differences in reactions and behavior patterns can be very useful in both directions. It is also a very human way of counselling: caregivers meeting the victims they (tried to) rescue(d), and both, going back to the original emotionally distressing event, and talking through it to support each other and search for meaning.

But there are also a lot of similarities. Indeed it often happens during psychological debriefings with caregivers or psychological first aid activities with victims, that the traumatic event in itself is described as something out of a movie or a video-clip, unreal and riddled with signs of denial.

The injured baby, for example, is first seen as a doll in the backseat, the face of the acquaintance is only recognised much later once the intervention is over and the painful job is done etc. Here we find again the intervention of the shock mechanism – sometimes referred to as tunnelvision, narrowing of attention – that must protect the victims or the caregiver from (emotional) collapse during the traumatic event. The human organism does not give in to "total loss" so easily.

The caregiver in question calls it "*working on automatic pilot*". In this way most of the actions during the first instances of a traumatic intervention happen "on automatic pilot", by instinct, trained, without speaking, to the point and … unreal. Children are often dolls under such conditions. Acquaintances "anonymous", injured or dead victims partly "dehumanised" through black humor to keep distance etc.

But the moment comes when the automatic pilot is promptly switched off. After the intervention we know this phenomenon as the *emotional post-fact collapse*. During long interventions one precise stimulus may suffice to stop the automatic pilot. The impression the victim resembles a relative, a teddy bear or child's doll, or other stimuli that pierce the harness or armor of the caregiver. And from that moment onwards he starts to function mainly as vulnerable individual. And he cannot keep this up for long. Once the intense experience is over and the danger averted, the caregiver in question gets an insight – albeit partly – into what has really happened and how is acted. From that moment on the *trauma-video-merry-go-round* begins. Because of the fragmented experience during the intervention every caregiver starts to reconsider – read "ruminate on" – the events wondering if he and his colleagues should or could not have done more. The more holes there are in the experience of the event, the longer the questioning process takes and the longer the mind ruminates on the experience.

This causes the person concerned to end up in the dialectics of a psychological trauma: continuous and intrusive reexperiencing, alternated by periods of negation/avoidance, with as a consequence that the complaints of heightened arousal remain unchanged. And if arousal, during the moments of intrusive reexperience, gets too high, integration of the traumatising experience will not take place. He can become mired in either intrusive reexperience or avoidance/denial, which leads to increasing social dysfunctioning. From this moment on and if the necessary DSM-criteria are met, Anglo-Saxon literature speaks of posttraumatic stress disorder.

This it seems clear that sooner or later, caregivers and rescuers, firefighters, paramedics and emergency medical nurses will definitely pay the emotional price for their work. This often occurs at the moment on which they are confronted with personal losses in their life, just as in the next example.

Peter had been involved in the rescue operations for the Switelfire from the first moments. He had helped dozens of shocked and burnt victims e.g.. by sprinkling them with water till the evacuation from the disaster scene. Peter was a very experienced firefighter of about fifty years of age. After the rescue operations, he was convinced of his good work. He did not feel the need to tell about his experiences nor to participate in the post-intervention debriefing sessions. He did not want to dwell on this one big intervention and just wanted to let everything rest. A few years later he was confronted with a series of emotional disturbing experiences in his own private life, all this happening in just a three month period:- he lost his mother and father, his wife was diagnosed with breast cancer and his oldest daughter attempted suicide. Peter was not able to cope with both the regular disturbing experiences from his fire practice, and his personal experiences. He asked for help - contacting me by e-mail, telling that he started to have nightmares, and that in each nightmare he saw his own family sitting at a table in the Switel hotel fire and being suddenly burned by the fire. While his relatives were screaming for help he was looking for them with his full fire equipment and oxygen mask being completely lost and disoriented by the heat and the smoke.

This example clearly demonstrates that potentially traumatic events which have not been worked through nor integrated, and which have been blunted in the post-immediate stage, can accumulate in the psyche and cause trouble in a much later life stage and this at a very unexpected moment.

All this demonstrates clearly that psychological group debriefing with all the participants in a major intervention is a must, even if nobody should participate in psychosocial crisisintervention on a mandatory basis, so that the minds of the caregivers concerned can be put at rest as quickly as possible. In some cases, support activities will have to include both the victims and their caregivers. Caregivers will already start on the site of the accident with their first psychological support for the dazed and shocked trauma victims. They will be supported themselves, on-scene, by their own well-trained peers. And in many cases, after the intervention, when suffering their own post-fact collapse, they will make contact again with the stricken victims (or the victims' families), invite them in the emergency department or fire brigade, to talk about their experiences and to work through the event together.

In the second part of this paper, I will shed light on the support activities aiming at *psychological first aid* and *emotional uncoupling sessions* (closely related to *psychological debriefing*) after introducing the core concepts of the CRASH-model for psychosocial crisisintervention. It will soon become clear that the type of support has vary as a function of the type of (potentially traumatic) impact or victims.

PSYCHOSOCIAL CRISIS INTERVENTION IN THE CONTEXT OF RESCUE OPERATIONS

The CRASH model: The Psychosocial Matrix of Crisispsychological Support for the Prevention, Care and Aftercare of Psychological Trauma

The psychosocial matrix of the CRASH-model for crisis psychological support is a 3 x 3 matrix in which we find respectively in the rows and the columns: 1) the *primary, secondary* and *tertiary victims,* belonging to one of these three categories depending of the type of potentially traumatising impact the suffered; and, 2) the *primary, secondary* and *tertiary prevention*, depending the time on which the trauma support takes place. The concrete realisation of the complete framework for psychosocial and crisis psychological support consists, one the one hand, of a kind of **emotional triage** to sort out the different kinds of victims, dividing them in three different categories, and on the other hand, the selection of the right support technique, at the right moment and carried out by the right people, thus trying to realise an optimal fit between victims and the kind of support theY get.

At first, the model might seem too simplistic, being too much a reduction of a very complex reality, but my field experience with this model, which has been implemented in several European countries and which has been in application for the management of numerous large-scale accidents and disasters, clearly demonstrates that this hands-on model leads at least to much better results than the one-size-fits-all approach of most critical incident stress management protocols.

The *primary victims* in this model are the directly stricken victims of the calamity or disaster, which means those who have to be rescued and/or medically saved, and those who have been directly confronted with the life-threatening potentially traumatic stimuli. The people who were celebrating New Year's Eve in the ballroom of Switel hotel, which was destroyed by fire in some 30 sec, and who escaped, needed to be rescued or received medical treatment belong to the category of primary victims.

The *secondary victims* are the significant others, closely related to the primary victims or playing a significant role as bystanders, in the first rescue attempts (before the emergency services arrive) or providing the first assistance to the primary victims and their families. The *social tissue* of significant others – relatives, family members, friends, colleagues, etc. – creates a victims dendrite of people who can be considered to be secondary victims. A quick calculation in numbers leads to the insight that for each primary victims we have approximately 10 to 15 secondary victims.

The *tertiary victims* are the professionally involved people, caregivers or law order personnel – fire & rescue personnel, police, emergency medical services, etc. – who have been in direct contact with the primary and/or secondary victims.

With respect to the prevention, I also use the trifurcated subdivision, making the difference between primary, secondary and tertiary prevention.

While strictly spoken, *primary prevention* would have to be everything which is done to prevent the traumatogenic impact itself, we like to use a broader and maybe less conventional definition of primary prevention, taking the whole series of activities of trauma education and preparation, training, and the creation of intervention models

and structures, even considering the on-scene support along with the peritraumatic first psychological support (cf. example of the tactics for victims aid by firefighters during the extrication and rescue of MVA-victims) to be a kind of primary trauma prevention. Thus, I personally consider all the support activities aiming at lowering the level of posttraumatic sequelae, to be primary prevention.

If potentially traumatic or life-threatening events lead to hyperarousal states in which the stricken victims have to fight for their lives and mobilise all possible animal-like survival mechanisms, sometimes going into dissociative behaviour, and – as the recent literature suggests – these acute reactions are considered to be predictive of later chronic trauma, everything which can prevent these states of hyperarousal (i.e. every support lowering arousal in trauma victims, calming down, nurturing, etc.) and possible avoid peritraumatic dissociation, keeping the victims on-scene grounded, is primary prevention of long term psychological trauma. This is one of the hypotheses, which I try to confirm through my own research with MVA survivors.

Even if a precise delimitation of interventions in the time is very difficult, I propose in this model that primary prevention ends on the moment on which: 1) the fire, rescue & emergency medical services are demobilised; and, 2) the primary and secondary victims, after the initial support and assistance offered to them on the scene of the accident or the disaster, are administered in the hospital or rejoined there own social system or life environment.

The immediate support, both on the scene of the accident or in temporary support centres on the field, carried out by the caregivers of fire & rescue, or ambulance services, or even provided by volunteers from civil defence, Red Cross or others services, is also considered to be primary prevention. The *on-scene buddy aid* or *peer support – the help for colleagues and from colleagues* on the scene of the accident – then the *initial emotional and physical recuperative talk sessions* (sometimes described as *defusing*) are also considered to be *primary prevention of posttraumatic sequelae in tertiary victims.* As already stated, primary preventive support activities can be carried out by non-professional caregivers or peers.

The *secondary prevention,* in the post-immediate stage, essentially consists of: 1) a quick an adequate detection of posttraumatic sequelae and psychosocial problems; 2) a rapid and adequate intervention, with the right interventions, carried out by the right people and all this on the right moment. Secondary prevention aims at the early detection of problematic responses or coping styles in victims, and an adequately intervention tailored to the needs of the victims, in order to prevent that these problems exacerbate and become chronic on the long term. I consider most *early intervention protocols* to be a kind of *secondary prevention (for tertiary victims).*
These secondary preventive support activities could, in some cases, be carried out by non-professional caregivers, as long as they work under permanent supervision of well-trained and professional mental health specialists.

Without wanting to go into the full details, I am personally convinced that the currently known models of *critical incident stress debriefing* or *psychological debriefing* have been designed as a secondary prevention for tertiary victims, *which should not be used to support or debrief primary or secondary victims.* I think that

the negative publicity on these intervention techniques is not due to these protocols but to the incorrect use of these techniques with people who should not be re-exposed to their trauma again so short after the impact or after an insufficient physical, emotional and psychological recovery period.

The *tertiary prevention,* finally, aims at the full professional curative trauma care, which can become necessary for the different categories of victims after several months during which these victims tried to cope with their experiences without any professional help. In this case, trauma victims can suffer from what is called in the DSM-IV (APA, 1994) Post-Traumatic Stress Disorder (PTSD), or even Complex PTSD.

Tertiary prevention can mean psychotherapeutical action from different perspectives, as there are (non-exhaustively): 1) (Brief) Cognitive-Behavioral Therapy; 2) Psychoanalytically Inspired Trauma Therapy; 3) (Brief) Eclectic Therapy; 4) *Sensori-Motor Trauma Therapy*; 5) Creative and/or Arts Therapy; 6) Experiential (and/or Existential) Trauma Therapy; and, 7) Integrative Trauma Therapy. In nearly all trauma models, the first stage of the therapy will aim at reduction and stabilisation of the current trauma symptoms and complaints, followed by a stage in which there will be a regociation of the trauma-related material, mostly using narrative exploration and cognitive reframing techniques, and finally, in the last stage working towards integration of the (loss and) trauma in the personal life story of the survivor.

Primary prevention of psychological trauma in primary and secondary victims of traumatogenic events

As mentioned above, in most cases the acute (peritraumatic) stage for the victims of a traumatogenic event is just a matter of seconds or maximum a few hours. This has certainly been the case for most of the victims of the Switel hotelfire. In many cases the stricken victims will need between 24 to 48 hours to *wake up* again from their *trauma trance* (*dissociative state*) or *tunnel* (cf. the forementioned dissociative responses in the different animal defense-like survival stages). When leaving these functional dissociative states (cf. narrowing of attention and functional tunnel experiences) the primary victims start to slowly realise what they went through or how lucky they were to survive. They are still afraid that the threat will return and in a repetitious way they will be aspirated back into their “traumatic tunnel” when the surrounding reality is still too cruel, extreme and/or overwhelming. The need to escape the surrounding reality is still there. The primary trauma victims will only return back to reality very gradually and only when they perceive again a sense of safety, security and stability in the surrounding environment.

In my opinion it is very important that the on-scene rescue workers and caregivers know how to guide and support the primary victims on their way back to reality, trying to calm these victims down, helping to ground them during and immediately after the rescue operations, and assisting them in their first reorientation attempts after the traumatic impact. Especially the trauma survivors who showed dissociative response need to be grounded on-site in order to prevent them from staying overwhelmed by the life-threatening, and potentially traumatic, stimuli. In this way,

the on-scene support of rescue workers, firefighters and paramedics can be seen as real primary prevention with respect of chronification of psychological trauma.

The first signs of post-impact recovery appear when the stricken victims start again to search for information (about what happened) in the surrounding environment. This yearning for information in the immediate post-impact stage makes the primary victims very fragile and suggestible with respect to the first rumours about what happened.

The mental reconstruction of what really happened is very difficult for the involved victims since they all suffered more or less from a narrowing of their field of consciousness, focusing on peritraumatic details which were relevant for their own survival or rescue. Lots of trauma-related, essentially preverbal sensations about speechless terror, have been registered but need much more elaboration before they can be transformed into senseful traumatic memories. Thus, each kind of support in that stage has to aim physical recovery and cooling down but not so much verbal expression since it is much too early for the narrative expression of what happened.

The on-scene support for primary, secondary and tertiary victims can be executed along the same principles. The first psychological help in the peritraumatic and immediate post-impact stage has to aim absolutely the reduction of the level of arousal and the re-creation of basic security and safety around the traumatised victim. One could assume that the natural support a mother provides to a child in a state of anxiety, in trying to secure and to calm down, is the right kind of support a traumatised victim needs.

Primary prevention of psychological trauma in tertiary victims of traumatogenic events: crisispsychological first assistance, psychological debriefing and emotional uncoupling after traumatic intervention

From physical recuperation through emotional ventilation to emotional uncoupling

The discussion of emotionally disturbing, shocking or traumatising interventions, in group and according to procedure, will be called **Emotional Uncoupling (EU)** in what follows. **EU** is in fact an individual or group oriented intervention – based on the commonly known **Psychological Debriefing (PD)** process – in which the most important elements of a past emotionally disturbing experience, are treated shortly after the events. Lately psychological debriefing – mostly based on the elementary protocol of *Critical Incident Stress Debriefing* (Mitchell, 1983) - has been generally advised as the best stress-management technique for high-risk professions like the people providing aid in disasters, fire-fighters, military personnel, police personnel, etc. (Dunning & Silva, 1980; Wagner, 1979; Raphael, 1986; Mitchell, 1981; Bergmann & Queen, 1986; Griffin, 1987; Jones, 1985). At this moment, a number of variants of the original Mitchell-protocol of psychological debriefing are widely

used in psychological crisis intervention services. The problem is that in many cases outcome-expectances of psychological debriefing were too high and that more recently specialists started arguing on the effects of psychological debriefing.

Firstly, we do not like the term "debriefing" because many of its users do not even fully understand the meaning of it – *can you debrief people who were not briefed in advance*? – or think they can very easily carry these debriefings out (because the term "debriefing" is very familiar to them from the point of view of "operational debriefing". Secondly, we think that the outcome criterion – i.e. the prevention of post-traumatic stress disorder (a concept in which we do not believe that much) – may be the wrong one.

Without wanting to go back on the way in which psychological debriefing is applied in all its variants and without entering the further discussion of its utility, we can say that the guided reconstruction of an emotionally disturbing and/or traumatic event appears to be of primary importance[5]. As the most important purpose of EU is the lessening of the (often intense) psychological suffering caused by an emotionally disturbing or traumatic event, it is clear that accurate memories of this event are of primary importance. This in itself poses a problem for large-scale interventions in which different teams of emergency medical personnel, fire-fighters or even larger groups of caregivers took part. These individuals often have trouble realising the larger context of the intervention in which they took part as a small but often important link. In the case of large-scale interventions such as traffic accidents, fires, cave-ins, explosions, i.e. disasters, it is clear that a correct reconstruction is impossible if only your proper corps is debriefed. It is impossible to get enough information about a multidisciplinary intervention and to measure to which it was succesful, if you limit yourself to this.

The following practical example will illustrate this:

Following a very heavy traffic accident in which four people died, a fireman had to watch from a distance of only a few metres how his colleagues and the emergency medical personnel applied first aid and even attempted to reanimate a victim that was severely trapped in one of the cars. He was there, ready to intervene at the slightest spark with the high pressure lance. Yet, after the event he felt superfluous and useless. To him this was the worst thing that have ever happened. Having to watch how his colleagues struggled to try and save four people with fatal injuries. During the Emotional Uncoupling Procedure at which his colleagues, the emergency medical personnel, the police, the tow service and a few other caregivers were present, this fireman exploded in anger and afterwards started to cry. Until the moment that a nurse said that she would not have taken such risks – there was gas dripping from the car on the other side – if he had not been there, ready to intervene. The eye contact she had kept going with him during the intervention, and which he had read as a reproach, had on the contrary meant a lot to her. In fact she was grateful to this fireman for his presence. She also said

[5] Why continue to argue on the outcome of Psychological Debriefing (PD) during every scientific congress when nearly all participants (trained and supervized caregivers' peers belonging to the Fire-Fighter & Medical Emergency Stress Teams already lead more than 200 Emotional Uncoupling Procedures) express themselves as "being glad to have participated", "grateful for the recognition and help provided", etc. One should simple not expect to "Prevent PTSD" in administrating PD to "trauma-victims" or "traumatized fire-fighters a.o." !

something else which was very important, she told him that even while they were driving to the scene of the accident, she had heard over the intercom which fire brigade would assist them. It had given her a feeling of "if it's those guys, everything is going to be all right".

This intervention by people from the medical staff meant more to the fireman (and his colleagues) than any therapeutic intervention could have. In general, this kind of remarks by "outsiders" – witnesses, medical staff, police – all mean a lot to fire-fighters; it makes them feel useful in their job which sometimes appears to be very passive and frustrating. We always use this example when a colleague tells us he thinks that psychological debriefing – what we call Emotional Uncoupling in this text – should only take place in small groups and within the proper corps only.

In some cases even the testimonies of witness or direct victims can be essential in this reconstruction process.

Further and equally important goals of Emotional Uncoupling are: ventilating tensions and frustrations (in many cases based upon the behavior of the press and "disaster tourists"), normalisation, comprehension and legitimisation of occurring reactions and feelings, creating a cognitive restructuration (we hope to replace negative cognitions by positive ones in the course of the discussion) creating a – almost mythical - bond among fellow caregivers and the identification of those participants who may be supposed to run a high risk of problematic assimilation.

Goals of Procedures for Emotional Uncoupling

Emotional Uncoupling Procedures (EUP) appear to be an effective means of handling the direct and delayed post-fact emotional collapse in caregivers. One should not expect to eliminate or reduce sensationally the risk of long-term dysfunctioning after a traumatic crisis, but this kind of provided support, which has to take place at the right time and by the right people, will always be very much appreciated by the stricken caregivers and allow them to emotionally uncouple more easily from disturbing and/or traumatic interventions.

The *Big Five of Victimology*, as we call the five following factors, will be essential to assure a healthy coping with emotionally disturbing events; (1) providing correct and honest information; (2) mobilising the available natural support systems; (3) assuring the right rituals; (4) avoiding secondary victimisation (by avoiding bad reactions from outsiders); and, (5) providing the necessary recognition to the concerned caregivers.

Table 1. Goals of Emotional Uncoupling Procedures

First: Together with everyone who took part in the event, establishing a correct reconstruction of what really happened by putting the pieces of the puzzle of each concerned person together.

Second: To give these people ample occasion to ventilate their emotional reactions concerning the events and to establish the intensity of these reactions.

Third: Offer recognition, support, information and comfort the stricken, by offering a detailed discussion, legitimisation and normalisation of the symptoms.

Fourth: Initiate, stimulate and catalyse the proper assimilation capacities in each participant in order to help him restore the feeling of safety and trust (and their feeling of predictability and control) in the environment in which they live and work.

Fifth: Take away the feeling of being uprooted by stressing and stimulating the togetherness and the connection among partners in adversity. Also stimulate the social coatcare (if necessary also support the social environment of the victim).

From the above, it becomes clear that the main goals of emotional uncoupling procedures aim to help the afflicted gain insight in the fact that both the initial on-scene coping mechanisms and their post-fact psychological suffering are the engine behind the assimilation of the trauma but that they can let this engine work for them instead of letting themselves be flattened by it.

Shock, sorrow, pain, fear, anger and other intense emotions are useful catalysts to come to a livable assimilation of the emotionally disturbing and/or traumatic event. Assimilation and not digestion because time and again the "*film of the entire scene*" can be started and a minute stimulus (very often a smell) is enough for the victim to relive the whole scene. Emotional uncoupling should not be used to confirm these feelings or to squash them, but to offer recognition for the feelings that surface during the session. They may be present as normal and legitimate reactions to an abnormal situation.

Beside these main goals there are a number of smaller individually-oriented goals. They comprise firstly the cognitive restructuring through a clear notion of the traumatic event and the reaction of it. The world of the victim can very well be turned inside down for a moment but does not have to remain like that forever. Next the individual and group tensions have to be diminished. Also one has to see to it that feelings of abnormality the victims of emotionally disturbing and/or traumatic events experience are lessened by letting them share them with more or less like-minded people by telling them that they are having normal reactions to an abnormal situation. Also an attempt has to be made to increase the support, cohesion and solidarity of the group. The afflicted have to be prepared to symptoms or reactions that can occur later and last but not least who may need help later is identified.

Conclusions

With this paper, we tried to create the full picture of a framework – the psychosocial matrix of psychosocial crisisintervention – for immediate and post-immediate support after potentially traumatising events. I took the illustrations for this paper from both my own field practice as a firefighter and paramedic, and from my practice as a trauma counsellor for large-scale accidents and disaster situations e.g.. the Switel hotelfire on New Year's Eve 1994-1995.

In my interpretation of psychological trauma, I tried to go beyond the superficial trauma descriptions found in the DSM-IV and for most of the time I minimalised the use of the concept of *Post-Traumatic Stress Disorder (PTSD)* – still being "the reference" with respect to psychological trauma in most Anglosaxon countries. Still convinced that PTSD is not the absolute scientifc truth when talking about early trauma intervention or support I also wanted to provide some extra insights with respect to first psychological support and early trauma intervention instead of using the well-known "one-size-fits-all" or "all-cure" techniques of the wisespread CISM-protocols for all kinds of trauma victims. An essential point in this discussion was the difference I made between the life-threatening events, on the one hand, and depressing or sad events and bereavement situations, on the other hand. Standardised models of how victims respond to extreme stress, and standardised interventions for early trauma support, never seem to make the difference between these various kinds of events and often allow a culturally blind and ideological use of intervention techniques which – in my opinion – will not prevent people from developing chronified trauma and/or complicated grief. Pre-formatted and standardised techniques used in a too broad variety of situations, and the uncritical attitude towards these techniques mainly imported from the USA, sometimes implemented in organisations on commercial basis, aiming the post-trauma support of burn injury patients, MVA survivors, raped women, hurricane victims, fire fighters, and military servicemen in or after war experience, without even making the difference between all the situations in which these victims were involved, made both scientists and clinicians doubt about the effectiveness of their interventions.

In the meanwhile, trauma support and critical incident stress management seems to become an ideology: this ideology of acute trauma management not only conquered Australia and New Zealand but the whole world, often paralysing the minds of lots of practitioners, till the scientific debate and controvery on the effectiveness of psychological debriefing and early intervention exploded less then a decade ago. But, the damage was already done.

I am convinced that we all have to do a part of our home-work again, having the moral strength and courage to fully and indepently develop our own practice-based trauma concepts which we get from our experience at the coal-face, instead of undergoing the tiranny of concepts which are imposed by the high profile trauma doctors, bio-psychiatrists and neuroscientists, being heavily sponsored for their laboratory research, and making us proove that what the nurturing mother does for her scared child, is right ...

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