Rescue Operations and Stress

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One of the primary roles of professional rescue workers is to intervene in life-threatening emergencies such as drowning. Where people are rescued from drowning, this work may be very rewarding. It may enhance job satisfaction, strengthen team functioning, and give positive meaning to work and life. On the other hand, such operations may also be sources of stress. This may, for instance, be caused by the experienced time pressure, communication problems, personal danger, and confrontations with death or severely injured children [1]. In practice, the amount of such possible positive and negative experiences will vary between incidents as well as between individual rescue workers. It will depend on the specific circumstances of the event but also on other aspects such as previous experiences and pre-event functioning. Where negative event-related experiences dominate, it may be expected that workers will experience some stress reactions or health problems in either the short or long term. In this chapter, we briefly highlight topics that may help to reduce or prevent ongoing event-related and adverse sources of stress as well as stress reactions [2].

81.1 Stress Reactions and Interventions

Research has shown that in general a small minority of rescue workers will develop severe and ongoing stress reactions following critical incidents and disasters in the month or months or even after year and years following the event [3]. Stress

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reactions during the first few days or weeks, such as reexperiencing the event, arousal, fatigue, and sleeping problems are considered normal reactions to such events. Possible initial emotions such as grief, anger, fright, and helplessness are not signs of a mental disease and often diminish within a few days or weeks [4].

Examples of ongoing and severe stress reactions or health problems are mental disorders such as post-traumatic stress disorder (PTSD) and major depression [2]. Nevertheless, despite the fact that a small minority is at risk to develop a mental disorder, there is an interesting variety with regard to the prevalences of post-event mental disorders. For instance, empirical findings indicate that among more specialized or elite rescue workers, these post-event mental disorders, which had not present before the event, hardly prevail [1, 5]. This brings the important question of why some workers develop ongoing stress reactions, while colleague workers do not. Insight in these risk factors may help to prevent ongoing and intense stress reactions among workers. Of these risk factors, some pre-, peri-, and post-event factors are sensitive to change. These factors may be influenced by a series of managerial steps in order to reduce the impact and thereby the risk for ongoing stress reactions [1, 6].

81.1.1 Address Sources of Stress

The first set of factors or circumstances to be targeted are possible sources of stress. Well-known sources that negatively influence post-event functioning or recovery are organizational stressors. Examples are serious conflicts with superiors, problems in team functioning, lack of rewarding, and workload already present before the event or during the event [1, 6].

Other important sources of stress are related to the event itself, such as prolonged exposure and exhaustion during the rescue work due to lack of time-outs of shifts. Sources of stress related to the post-event period include ongoing accusations and negative reports in the media about the rescue operation itself and lack of time to recover physically and emotionally. Stress incidents or life events in private life may also put workers at risk and intensify stress reactions.

Preventative intervention relies on identification of possible sources of stress so that it is possible to reduce their impact. Where specific severe stressors cannot be solved or addressed beforehand, for example, when a partner has a lethal disease, the question arises if and how the individual worker can be deployed in future rescue work.

Practical sources of organizational stress may also become more visible because of the event and the related attention. In other words: it may appear as if the event caused communication problems or conflicts among workers. In reality, a review of the incident often establishes the fact that these problems were present before the event. In some cases, the raised stress reactions become a source of stress itself. Some workers feel overwhelmed by all kinds of stress reactions they have never previously experienced, and this may frighten them. Adequate information may reduce these anxious feelings [7].

81.1.2 Address Possible Needs

A second set of factors that requires serious attention are the needs of workers. These needs include most of all:
- Practical issues. For example: transport to back home and telephone call to home.
- Insight into the total operation, for example, information and technical debriefing.
- Going back to normal work. For example: shift or normal work.
- Time to recover. For example: time-out.
- Learning or lessons. For example: improve specific procedures.
- Experiences related to the event. For example: to talk about it with colleagues or significant others.
- When a colleague or coworker has died during the rescue operations, the needs with respect to the funeral must be addressed.

Especially after drastic events such as calamities, disasters, or large unsuccessful rescue operations, it is important to examine and monitor the possible needs on both the short and the longer term. These are incidents that are perceived as very stressful events. As a consequence, workers may express the need to have a formal meeting for debriefing but also express the need for a more informal meeting without the perceived social pressure to talk in detail about their experiences.

When addressing possible needs, it is important to make a distinction between needs that can easily be fulfilled by the rescue workers themselves, colleagues, or home front and needs requiring additional help from the organization or other professionals. Victim assistance is not intended to substitute normal resources of support or mutual support but to provide support in cases it is missing or incomplete.

Just like the sources of stress, it is not known for sure what the exact needs of individual workers will be after a specific event. Two events may look or be perceived as more or less similar, but that does not necessarily indicate that the needs are also similar. Thus, one major task is to explore possible needs in the aftermath at subsequent moments and to properly address them [2, 7]. Unmet needs may cause frustrations and become a source of stress. It is important, however, to have some kind of process in place to address possible needs prior to, during, and after an event.

81.1.3 Address Ongoing Stress Reactions

As noted, a small minority of the rescue workers will develop severe ongoing stress reactions, such as PTSD, major depression, or both. Some workers suffer significantly from serious stress reactions while not fulfilling the criteria of a mental disorder. In general and according to the established criteria, when workers suffer from severe and disabling stress reactions for 1 month or longer, they need to be referred to a therapist to be diagnosed and offered subsequent treatment [7].

The reason is that in most cases, when such intense problems do not decrease, the chance that these problems will disappear spontaneously will diminish as time passes. For instance, if workers suffer from severe stress reactions 6 months

post-event, it is unlikely that they will disappear 1–2 weeks later. On the other hand, if workers suffer from these reactions 2 weeks post-event, many will recover within 2 weeks.

Treatment may shorten the period that workers suffer from their problems. Thus, superiors as well as affected workers and their colleagues have an important task in signaling such mental health disturbances. However, seeking treatment may be something workers perceive as a personal weakness or shortcoming, hindering the use of mental health services. In this perspective it is an important task for the management or superiors to address and solve such beliefs and discourage unpleasant jokes about seeking treatment.

Research and practice have shown that some of the workers identified with mental disorders after an event had previously suffered from, sometimes serious, mental health disturbances before the event. The renewed attention towards how the workers are doing after the event just shows what was already present but remained unnoticed. This indicates that, among other reasons, one must be careful not to automatically attribute mental health problems solely to a specific rescue operation and experiences: Mental health problems after a drastic event are multifactorially determined and a result of a complex interaction process between personal, social, and societal factors.

81.2 Procedures

It shall be clear that, given the variety in lifesaving operations, local circumstances, and national health care systems, there is not a simple one-size-fits-all blueprint to target sources of stress as well as stress reactions: A specific event-related procedure may become inadequate or insufficient when copied to events that share some characteristics but differ in other characteristics. For example, the consequences of confrontations with dead children will be different if the children and families were unknown to the rescue workers compared to children and families who are well known by the rescue workers.

As said, the global aim is to reduce sources of stress and stress reactions or to restore important resources. In Table 81.1, the main activities to achieve this are depicted. The activities can be used to target sources of stress and stress reactions in specific situations. If necessary, they can be completed with other activities that meet local particulars such as the culture, health system, and expectancies. An important criterion is that the activities can be applied in a flexible way, in ways that match needs and situational context and take into account the ongoing stressors, reactions, and resources [8].

Most activities presented in Table 81.1 will not need further explanation. The follow-up is a kind of cyclic process in which main activities are being rehearsed until the normal situation is restored. Perhaps the term *stepped care for affected workers, including monitoring health* needs some additional information. Stepped care is a well-known treatment policy in medicine and psychology and indicates that possible interventions are adjusted in stages, or steps, according to the failure

Table 81.1 Activities to reduces sources of stress and stress reactions

Psychosocial crisis management: first things first	Gain insight and overview total situation
	Rank and give priorities to activities aimed at sources and stress
	Be informative and communicate
	Provide normal practical, informative, and emotional support based on needs
	Take care of preparations for new rescue work
	Tune activities with other involved organizations
Follow-up after crisis phase: a cyclic process	Gain insight and overview total situation in aftermath
	Rank and give priorities to activities aimed at sources and stress
	Be informative and communicate
	Stepped care for affected workers, including monitoring health
	Solve formal issues such as juridical and financial problems
	Evaluate rescue operation and interventions
	Use external consultants if necessary
Individual referral by ongoing stress: treatment and reintegration	Contact occupational physician/mental health professional
	Diagnoses and subsequent treatment
	Reintegration work

or lack of effect of lower intensity interventions. Thus, one starts with low-intensity interventions or waits with specific interventions as long as problems do not increase or recover spontaneously with or without normal help and support from others. Psychotherapy, for instance, as a form of high-intensity intervention is only offered after a proper diagnoses when workers continue to suffer from severe stress reactions during more than 4 weeks. This cost-effective principle may also indicate that after a specific event, no additional interventions towards involved workers are required because of the resilience and coping self-efficacy of workers. If workers hardly express or report stress reactions following an event and no other event-related sources of stress can be expected, then there is no need for interventions aimed at the mental health of workers.

Conclusion

In order to help to reduce or prevent ongoing event-related and adverse stress reactions after drastic rescue work, it is important to both address and try to solve sources of stress as well as the initial stress reactions. Since all events differ to a larger or smaller extent, there is no simple blueprint for a mental health policy for rescue workers. This indicates that possible inventions should be carried out, no sooner than that these issues have been explored and examined. One first needs to have a basic impression or insight in raised problems, and monitor them in the aftermath of a specific event, before any intervention is undertaken [9]. This indicates that, dependent on the specific circumstances of the event, an outcome of this process may be that no additional activities of interventions have to be started. It is also important that members of the rescue team know that help is available should they want it and that seeking help is not a sign of weakness.

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