The analysis of

Psychosocial Needs of Victims of Disasters

according to science and practice

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Summary

In this study the psychosocial needs of victims of disasters and calamities were examined along with their implications for the treatment of these victims. Maslow’s Hierarchy of Needs and Hobfoll’s Theory of Resource Loss were used to define significant needs of victims of disasters and calamities. The most significant needs were anticipated to be basic physiological and psychological needs, safety needs and the need to belong. Another important aspect in the treatment of victims of disaster was pre-disaster planning and preparedness. A scientific literature study was conducted in order to establish the scientific view on psychosocial victim needs and their treatment. Next, reports judging the aftermath of disasters in general and the treatment of victims specifically were assessed in order to establish the practical view on how victims of disasters and calamities should be treated. For this reports of disasters that took place in the Netherlands in the past thirteen years were used.

Discrepancies between scientific arguments and arguments stemming from practice were examined to assess whether the practical treatment was based on or in line with the scientific view, or if the treatment of victims consisted of non-empirically tested interventions.

It was concluded that, particularly during the early disasters under study, the psychosocial treatment of victims needed improvement, especially since no guidelines or protocols existed.

Over the years much has improved, like for instance the publishing of multidisciplinary guidelines for victim care based on scientific arguments. However, it also became clear that although theoretical attention to psychosocial victim needs has significantly increased, practice still leaves room for improvement, especially on the aspects of psychological needs, the need to belong and the general need for planning and preparation.
A word of gratitude

The person actually earning much more than only one word of gratitude is my supervisor Mark Bosmans, who was there whenever I needed guidance or advice. Also, I would like to thank The International Victimology Institute Tilburg (INTERVICT) for giving me the opportunity to do an internship and explore the world of victimology in a practical way. Lastly and mostly I thank my parents, for their endless love and support and all their paper and ink I used during my ‘scientific activities’.
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Reference List
1. Introduction

The focus in this study is on the psychosocial needs of victims of disasters and calamities. Each disaster is unique and brings along unusual challenges (Rubonis & Bickman, 1991). Since disasters are unanticipated events by nature, developing and especially following protocols within these situations can be challenging. As stated, at beforehand unforeseen issues often come up. Therefore, even though policies have been developed, every disaster or calamity tests civil administrations’ and health services’ capacity to act in ‘the best suitable manner’ (McFarlane & Williams, 2012). This study will analyze the psychosocial needs of victims of disasters and calamities and the treatment awarded to them in order to fulfill these needs. Now, what standards are set around the treatment of victims of disasters and calamities, and how did these come about?

On the one hand, science has been focusing on victim needs through research. On the other hand, practical guidelines have been developed in order to facilitate the treatment of victims in various situations ‘in the field’. An example is the Dutch Multidisciplinary Guideline on the early psychosocial intervention after calamities, terrorism and other shocking events (Velden, van der, Loon, van, Kleber, Uhlenbroek, & Smit, 2009). This is a guideline for social workers focusing on the treatment of victims of disasters and calamities within the first six weeks after the event has taken place.

On the one hand the trauma field is thus concerned with scientific research studying victimization and the needs that go hand in hand with it. On the other, it has a practical side to it that is concerned with the actual treatment and aid of victims in practice. The aim of this study is to investigate to what extent the practical treatment of victims is based on theoretical arguments and empirical evidence offered by science. Discrepancies as well as similarities between theoretical arguments stemming from research and practical aid will be studied, in order to investigate whether the guidelines, which facilitate care given to victims, are derived from literature. This study will focus on victims of disasters and calamities, and in particular on the psychosocial needs that these victims have. What is known from scientific literature about these needs of victims? Also, what is stated in the Multidisciplinary Guideline when it comes to psychosocial victim needs?

The central research question within this study will be as follows: Which psychosocial needs of victims of disasters are currently acknowledged in scientific literature and practice and to what extent does this affect the practical treatment of these victims?

In order to find out which psychosocial needs of victims of disasters are acknowledged by the scientific field, first, a systematic literature study of the scientific literature on the psychosocial needs of victims of disasters will be conducted.

In order to gain insight on the practical side of victim aid and the view of policy makers on the way these victims should be treated, governmental reports published after disasters that have taken place need to be analyzed. Also, the Multidisciplinary Guideline, which is concerned with victims of calamities, will be analyzed to get an insight on its view on psychosocial victim needs.

Similarities and discrepancies between the scientific view on the one hand and the practical view on the other will be examined. This will provide insight in the possible room for
improvement in practical guidelines set to aid victims. After all, if scientific literature describes certain psychosocial victim needs for which there is no attention within practical guidelines, an increase in this attention would likely be an improvement in the care of victims of disasters and calamities.

Finally, possible recommendations around the treatment of victims of disasters and calamities after comparing the scientific and practical views on their psychosocial needs will be offered, and within this last point also lays the relevance of this study. Although a lot of research has been conducted on the needs of victims of disasters and calamities and the way they should be aided, scientific studies sometimes contradict each other. There is a need for a scientific based treatment for victims to ensure interventions’ efficacy.

This study will contribute to science by combining a theoretical study with a practical analysis. Theoretical arguments offered by the scientific literature will be compared to reports judging the actual aid of victims in practice, and within this lies the scientific relevance of this study. Studies on psychosocial needs of victims of disasters are rather scarce, so the scientific aim of this study is to provide a theoretical basis on the subject, while linking theories to practice.

Policy involving victim aid is expected to be highly dependent on the acknowledgement of victim needs by science as well as society and government. If discrepancies between societal and scientific arguments for victim needs come up, questions should be posed. The social relevance of this research lies within the fact that everyone in society faces a risk of falling victim to a disaster. It literally is in everybody’s interest that victim care is optimized.

The next chapter will provide a theoretical framework and offer the detailed research questions.
2. Psychosocial needs: the effects of disasters, Conservation of Resources Theory and Maslow’s pyramid

Within this chapter, the general theory that will be used during the literature study, concerned with psychosocial needs of victims of disasters, will be described. From this theoretical framework research questions will be derived.

2.1 Psychosocial effects of disasters and calamities: psychological distress

The first aspect that should be taken into account in a study involved in this subject is disaster characteristics. Every disaster or calamity can be considered as a unique situation, and therefore generalizing the effects and thus the impact of disasters is problematic (Rubonis & Bickman, 1991). The term ‘psychosocial effects’ is rather broad due to the difficulty of generalizing study results. According to Norris et al. (2002), psychosocial consequences of disasters can involve specific psychological problems, medical issues and a wide range of more general effects, like for instance a change in daily activities. Among the psychological problems, the most apparent ones are depression, feelings of anxiety, Post Traumatic Stress Disorder (PTSD) and Major Depressive Disorder (MDD). Other psychological issues for victims of disasters and calamities raised by these authors are startle responses, event-related distress, difficulty concentrating and trouble sleeping. Other studies show high levels of substance abuse, like alcohol and drugs, among traumatized victims as well as high occurrences of phobias (Corrarino, 2008; Norris, Friedman, Watson, Byrne, Diaz, & Kaniasty, 2002; Rubonis & Bickman, 1991; Stoddard et al, 2011). A review on psychopathology prevalence rates among disaster victims in the United States in the second half of the 20th century even shows a 35.5% alcohol abuse rate (Rubonis & Bickman, 1991).

Furthermore, disasters often cause large-scale medical injuries. Apart from physical injuries, victims often suffer from somatic, medically unexplainable complaints. Also, pre-event medical problems tend to worsen (Norris et al., 2002). Another important aspect of disasters and calamities is that of loss. Trauma can involve multiple forms of loss, like losing a loved one or even the larger part of one’s social network, a home or a job. But also ones future potential and hopes, dreams and core assumptions on the worldview risk change or loss, resulting in stress.

Overall, it can be stated that exposure to a disaster or calamity can involve many negative consequences, resulting in stress among victims. The next paragraph will go further into the realization of stress, and factors contributing to this.

2.2 The role of resources after a disaster or calamity: Conservation of Resources Theory

As described in the previous paragraph, one of the most apparent general effects of a disaster or calamity on individuals is the occurrence of traumatic stress, expressed in different forms of disorders and complaints. A theory that focuses on dealing with stress is the Conservation
of Resources Theory (COR). This is a theory stemming from the 1980s involving an up until then new way of conceptualizing stress.

Conservation of Resources theory states that people at all times ‘strive to retain, protect and build resources’, and the threat of or actual loss of these resources is what causes stress (Hobfoll, 1989). Since the preservation of resources is likely to be seriously threatened during a disaster or calamity, this theory explains the stress of victims in these situations.

According to Hobfoll, there are four basic categories in which resources can be classified: objects (like material possessions), conditions (like a stable relationship), personal characteristics (like social skills) and energies (like knowledge for example). These are resources that people strive to maintain (Hobfoll, 1991). Hobfoll states that stress is triggered whenever resources are lost, threatened, or in case one invests in resources but does not gain adequate resources in return. In order to minimize stress for victims in these situations according to this theory, one should thus minimize resource loss and optimize resource protection. Now, traumatic stress is a specific form of stress that is seen as particularly threatening to resources and generally results in rapid resource depletion when it occurs. The resource loss in the aftermath of disasters can be seen as rapid, since traumatic stressors often attack basic values in society. Also, loss due to disasters is mostly sudden and unexpected. Traumatic stressors make excessive demands since they are outside of the realm for which resource utilization strategies have been developed. Lastly, they tend to leave a strong mental image that is quickly evoked by cues that are associated with the event.

Concluding, according to the Conservation of Resources Theory, the most basic need victims have in order to prevent stress is the maintaining of significant resources.

2.3 Significance of resources: Maslow’s Theory of Human Motivation

Needs in general are a long studied subject. Perhaps one of the best known scholars that has been studying human needs is Abraham Maslow. In his paper ‘A theory of human motivation’ he states all human behavior is motivated by human needs. He hierarchically ordered these needs in a schematic pyramid. This pyramid gives an overview of Maslow’s interpretation of patterns of motivation.

Figure 2.3: Maslow’s pyramid of hierarchical needs
Maslow hierarchically ordered human needs from the most basic one on the bottom, immediate physiological needs (like food, water and health care) to self-actualization in the top. He claimed that people will always strive to fulfill their needs, but do so in a hierarchical manner. In order to focus on esteem, first all the ‘lower’ positioned needs will have to be met (Maslow, 1943).

Maslow’s pyramid of human needs can also be applied in case of a disaster or calamity. In fact, while taking this hierarchy of needs into account, it becomes clear that in times of crisis even the most basic human needs are at risk. During a disaster or calamity people can lose their homes, their access to food, water and health care is threatened, the overall situation could be unsafe and even the loss of loved ones or one’s own life are potential risks. Individuals and their psychological, physical and social needs are challenged, causing stress to those that fall victim to a disaster or calamity. In order to minimize traumatic stress after disasters or calamities, first of all the basic, physiological needs of victims will have to be met.

The literature study that will be conducted in the next chapter will be in the light of these theories. It will be assumed, based on the theoretical framework stemming from aforementioned theorists, that psychosocial effects of disaster involve, among other consequences, severe traumatic stress. This stress is expected to be caused by the rapid resource loss due to the disaster or calamity. Maslow’s theory of motivation, stating that people have hierarchically classifiable needs in terms of significance, led to the assumption that needs and resources can be ordered hierarchically. Now, which psychosocial victim needs are pointed out as significant within scientific literature? Psychosocial victim needs will be studied in terms of resource loss, as in the work of Hobfoll. The first more detailed research question then is: Which psychosocial needs of victims of disasters come forward in scientific literature?

After exploration of the scientific field, practical guidelines will be taken into account. The second more detailed research question is as follows: Which psychosocial needs do victims of disasters and calamities have according to practical guidelines concerned with victim aid? Analyzing evaluating reports on for instance health services offered after disasters, can provide insight into the view of policy makers on how victims of disasters and calamities should be treated. Discrepancies between the scientific view and the actual treatment of victims could point at possible room for improvement of policies, so these will be examined. Are policies based on or at least in line with what is stated in scientific literature? The third research question will then be: Which changes would be recommended in the treatment of victims of disasters and calamities after the comparing of the literary and practical view on their psychosocial needs?

In the next chapter, the methodology of this research will be discussed. Concepts will be operationalized, and methods of analysis will be described.
3. Methodology

The central research question within this study was stated as follows: Which psychosocial needs of victims of disasters are currently acknowledged in scientific literature and practice and to what extent does this affect the practical treatment of these victims? This chapter will describe the practicalities within the study around this question. First, the target population and sample will be described. Secondly, definitions will be offered and concepts will be operationalized.

3.1 Sample

As can be derived from the central research question, the central target population of this research contains victims of disasters and calamities. However, the effects of disasters can be widespread in such a way that boundaries have to be set around the sample that is to be studied. Therefore, although many may be affected, the victims under study within this research will be solely the direct victims. Though disasters and calamities can involve the victimization of many in an indirect way (for instance by the loss of a loved one by someone who is not directly personally involved), this research will only focus on direct victims and their psychosocial needs. Tertiary victims, so the broad group of all those in society in any way affected by the disaster, will also not be taken into account.

Direct victims of disasters and calamities and their psychosocial needs will thus be central. These are the victims that were present in the crisis area at the time that the disaster was taking place. Firstly, a literature study will be carried out in order to find international scientific evidence for significant psychosocial victim needs. This literature study will focus on victims of disasters worldwide, and will involve the analysis of reviews on psychosocial needs of victims of disasters established by scientific studies. Next, the actual treatment of victims and the assessment of this treatment will be studied. This part of the research will focus solely on events that took place within the Netherlands in the past thirteen years, to see whether the help that was offered in practice met victim needs, either while compared to scientific literature or assessed by policy makers. Reports that will be included in the analysis are all reports that were conducted by order of the Dutch government.

3.2 The concepts around disasters and calamities under study

Within this study, the term ‘disasters and calamities’ will be used to describe possibly traumatic events, occurring naturally (like a tsunami) or by human acting (like a shooting incident), that is either directly or indirectly seriously disrupting a larger part of the population, and is characterized by widespread material, human, economic and environmental losses and impacts. These incidents happen unexpectedly, which often increases their effect (McFarlane & Williams, 2012).

The calamities under study will be some of the disasters that took place in the Netherlands in the past thirteen years. The first disaster focused on within this research is the fire in a bar in Volendam that took place during the New Year party of 2000-2001. Secondly, the fire in a
cell department of a detention center housing illegal persons in the airport Schiphol will be studied. The third calamity under study can be considered a terrorist act and involved the attack on the Dutch queen on Queen’s day in 2009 causing the death of 7 bystanders. Fourthly and finally governmental reports on the shooting in a shopping mall in Alphen aan den Rijn in 2011 will be studied. These are all events that occurred in the Netherlands but received widespread national and international attention. This classifies these events by definition as events of national significance, and therefore appropriate study objects within this research.

The next central concept within this study is that of psychosocial needs. Psychosocial needs will involve psychological and social needs, like therapy or social support, but also material ones. After all, for instance losing a home after a disaster may seem like a material issue, but can understandably have psychological and social consequences as well. Following Maslow’s hierarchy of needs, one could assume that failing to meet such a basic need would lead to the blocking of striving to fulfill any of the higher ranked needs. Consequences of losing basic resources can thus, according to the theoretical framework, be widespread. Literature will be studied in order to get an insight on the scientific view on significant psychosocial needs.

The term ‘acknowledged’ within the central research question will thus refer to acknowledgement in either scientific literature or in the public policy view, which is expressed in reports assessing the practical treatment of victims. Whether room for improvement in policy exists will become apparent after comparing arguments raised from the scientific field with those offered by practice or expressed in policy.

3.3 Research Methods

As described before, a literature study in the international database PubMed will be conducted in order to gain insight in what science described as significant psychosocial needs of victims of disasters. The search terms that were used in this literature review are displayed below in table 3.1.

<table>
<thead>
<tr>
<th>Search Term Used</th>
<th>N° Hits</th>
<th>N° Articles included</th>
</tr>
</thead>
<tbody>
<tr>
<td>psychosocial needs AND victims AND disasters OR terrorism</td>
<td>1415</td>
<td>23</td>
</tr>
<tr>
<td>psychosocial intervention AND victims AND disaster OR calamity</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>psychosocial care AND victims AND disaster</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>psychological treatment AND victims AND disasters OR calamities</td>
<td>53</td>
<td>7</td>
</tr>
</tbody>
</table>

Within the literature study only reviews will be assessed, for the simple fact that reviews themselves consist of an analysis of multiple studies and therefore provide a generally large amount of information. A time frame of scientific literature will be set from 1980 untill December 2012. The starting point of 1980 was chosen for a reason: this is the year the
definition of PTSD was included in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), and marks the upcoming of attention for traumatic stress (DSM-IV-TR, 2000). Literature focusing solely on children will be excluded from analysis since the needs of children are expected to differ significantly of those of adults, and further research into pediatric needs among victims of disasters is recommended (Corrarino, 2008). Also, articles on biological, chemical and nuclear terrorism were excluded. These contemporary types of terrorism are expected to differ in their consequences from ‘regular’ terrorism in such a way, that it is advisable to study them separately.

After exploration of the scientific literary field, the practical treatment of victims of disasters and the view of policymakers on this will be analyzed through the studying of assessment reports. Reports by for instance the Dutch Safety Board will be analyzed. Table 3.2 below offers an overview of the guideline and reports to be studied. The last report in the table does not contain the assessment of disaster, but provides guidelines in the early treatment of victims of disasters and calamities for health workers. By analyzing the advice and guidelines offered to them, insight will be provided on how governmental institutions want and expect victims to be treated.

In the next chapter, scientific arguments that explain the psychosocial needs of victims of disasters and calamities will be discussed. In the fifth chapter, governmental reports will be studied in order to find explanations for the actual treatment of victims in practice; is this based on the needs that were also expressed in literature, or do other factors play a part?

### Table 3.2 Reports under analysis

<table>
<thead>
<tr>
<th>Disaster</th>
<th>Title Report</th>
<th>Conductors &amp; Publication year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schiphol fire (2005)</td>
<td>• “Brand cellencomplex Schiphol-Oost”</td>
<td>Inspectorate Security and Justice, 2006</td>
</tr>
<tr>
<td>Queen’s Day attack (2009)</td>
<td>• “Koninginnedag 2009 Apeldoorn”</td>
<td>Inspectorate Security and Justice, 2009</td>
</tr>
<tr>
<td></td>
<td>• “Multidisciplinary Guideline on the early psychosocial intervention after calamities, terrorism and other shocking events”</td>
<td>Bureau of National Health (GGZ) Netherlands, 2007</td>
</tr>
</tbody>
</table>
4 Psychosocial Needs of Victims of Disasters according to Scientific Reviews

Within this chapter, a literature study was conducted in order answer the first more detailed research question. This question was as follows: Which psychosocial needs do victims of disasters and calamities have according to practical scientific literature? As described in the previous chapter, this literature study followed the footsteps of Hobfoll and his Conservation of Resources Theory, claiming that stress is evoked by the threat or loss of significant resources after a disaster or calamity. Maslow’s theory of Human Motivation was used to hierarchically order needs according to their significance. Psychosocial needs were studied in terms of resource loss and significance, and influencing factors (according to scientific literature) will be analyzed. Also, interventions to fulfill victim needs were examined. After all defining needs is not enough; rather, solutions that will lead to the fulfillment of these needs are needed. However, first an overview of the conducted literature study and the included articles will be provided.

4.1 Overview of the literature study

A total of four search terms were used to find relevant articles in the scientific database PubMed. As described in the previous chapter, only reviews were analyzed and the timeframe of the focus of this scientific literature study was from 1980 (with the including of the definition of PTSD in the DSM-IV-TR (2000) until 2012.

The first search term that was used was a more general one, namely psychosocial needs AND victims AND disasters OR terrorism, and resulted in 1415 hits. An overview of the included articles resulting from this term is shown in table 4.1 on the next page.

As shown in table 4.1, the included articles were mainly on psychological and social needs, and disaster management in general. Some articles on medical needs were included as well, leading to a total of 23 included articles.

After establishing a general view on psychosocial victim needs from the analysis of the articles included after using the first search term, a search for articles on intervention and aid for victims of disasters and calamities was started. The first search term that was used in order to gain information on for instance treatment methods for traumatic stress was psychosocial intervention AND victims AND disaster OR calamity, and resulted in 25 hits. Of these, three were included. One of these included articles was actually already included during the previous search. The overview of the first search on intervention for victims of disasters and calamities is shown in table 4.2.
### Table 4.1: Overview of included articles from the first search term

**Search term:** psychosocial needs AND victims AND disasters OR terrorism  
**Database:** PubMed (N° hits: 1415)  
**Search limitations:** reviews only (1980-2012)  

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s), Year of pub.</th>
<th>Need(s) under study</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Terrorism, posttraumatic stress, and religious coping.</td>
<td>Bell Meisenhelder J. (2002)</td>
<td>The need to belong</td>
</tr>
<tr>
<td>• Disaster management teams.</td>
<td>Briggs S. (2005)</td>
<td>Psychological &amp; safety needs</td>
</tr>
<tr>
<td>• Disaster-related mental health needs of women and children.</td>
<td>Corrino, J. (2008)</td>
<td>Psychological needs</td>
</tr>
<tr>
<td>• Cognitive behaviour therapy for posttraumatic stress disorder</td>
<td>Harvey A., Bryant R. &amp; Tarrier N. (2003)</td>
<td>Psychological needs</td>
</tr>
<tr>
<td>• Management of blood system in disasters.</td>
<td>Kuruppu KK. (2010)</td>
<td>Medical needs</td>
</tr>
<tr>
<td>• Terrorism and weapons of mass destruction: managing the behavioral reaction in primary care.</td>
<td>Lacy T. &amp; Benedek D. (2003)</td>
<td>Psychological needs</td>
</tr>
<tr>
<td>• Overview of the psychosocial impact of disasters</td>
<td>Leon, GR. (2004)</td>
<td>Psychosocial needs</td>
</tr>
<tr>
<td>• Access to hospitals in the wake of terrorism: challenges and needs for maintaining public confidence</td>
<td>May T. &amp; Aulisio M. (2006)</td>
<td>Medical needs</td>
</tr>
</tbody>
</table>


Table 4.2: Overview of included articles from the second search term

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Title</td>
<td>Author(s), Year of pub.</td>
<td>Need(s) under study</td>
<td></td>
</tr>
<tr>
<td>Psychosocial care following the firework disaster in Enschede; the lessons from the Bijlmer airline disaster</td>
<td>Gersons B., Huijsman-Rubingh R. &amp; Olff M. (2004)</td>
<td>Psychosocial needs &amp; disaster management</td>
<td></td>
</tr>
</tbody>
</table>

The next and third search term that was used only resulted in two hits. These were both included, but one of them already was found, during the first search. An overview is given below in table 4.3.

Table 4.3: Overview of included articles from the third search term

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</thead>
<tbody>
<tr>
<td>Title</td>
<td>Author(s), Year of pub.</td>
<td>Need(s) under study</td>
<td></td>
</tr>
<tr>
<td>Psychosocial care following the firework disaster in Enschede; the lessons from the Bijlmer airline disaster</td>
<td>Gersons B., Huijsman-Rubingh R. &amp; Olff M. (2004)</td>
<td>Psychosocial needs</td>
<td></td>
</tr>
</tbody>
</table>

The fourth and last search term that was used (psychological treatment AND victims AND disasters OR calamities) focused more specifically on psychological interventions. This search term resulted in a total of 53 hits, of which eventually seven articles were selected. These articles (shown in table 4.4) were mainly about psychological needs and intervention strategies to deal with traumatic stress and their effectiveness.
Now that an overview is provided on how the scientific literature study was systematically conducted, it is time to take its results into account. The next paragraphs will cover the most significant needs of victims of disasters and calamities according to the analyzed articles.

4.2 The most significant needs and resources

As described in the previous chapter, Hobfoll distinguishes four types of resources, namely objects, conditions, personal characteristics and energies (Hobfoll, 1991). Reviewing Maslow’s pyramid in the second chapter reveals that the most significant needs are basic physiological needs like medical care, food, and safety needs like shelter and removal from danger (Maslow, 1943). In the next paragraph the scientific view on victim needs will be discussed, following the theories of both Hobfoll and Maslow.

4.2.1 The bottom of the pyramid: Basic physiological needs

On the bottom of Maslow’s pyramid are the basic physiological needs. These involve for instance food, water and health (Maslow, 1943). If these basic needs are not fulfilled, individuals are, according to the theoretical framework of this study, unlikely to strive to fulfill any hierarchically higher placed needs such as the need to belong or esteem needs. Disasters and calamities often cause many casualties and deaths, thus medical attention can be seen as one of the most basic physical needs of victims. In a review by King and Steinmann is
even stated that “the most apparent consequences of natural disasters are their immediate effects on physical health” (pp. 992) (2007). Although the focus of this research is not on the medical consequences of disasters, it is an aspect that cannot be ignored. At times of crisis, the general public tends to regard hospitals as the central points of assistance and support. Naturally, hospitals are seen as rallying points for assistance in times of emergency (May & Aulisio, 2006). This last aspect results in the fact that many people, also those without physical injuries, turn to hospitals for help. Access to hospitals should therefore be protected. Hospital access has to be restricted in some way to essential personnel and immediate casualties (so screening patients seems unavoidable) and access for instance for their relatives. Especially since a degree of chaos and panic seems unavoidable, some form of crowd control must thus remain a concern. Police forces are likely to have other priorities then maintaining the order at hospital locations, so hospitals are required to have their own crowd control system at times of emergency. The most important factor in protecting victims’ medical needs thus seems preparation (Kuruppu, 2009). Since disasters and calamities often involve many deaths and casualties, health system preparedness is an absolute necessity in order to optimize victim care. The management of blood systems and distribution of medicines for instance require careful pre-disaster planning. The same goes for the pre-disaster establishment of disaster management teams such as search and rescue teams, triage teams and disaster medical assistance teams (Briggs, 2005). Another study pointing at the importance of planning is that of Bukhari et al. (2010). Their review discusses the importance of a standard operating procedure for emergency medicine procurement and the availability of a need-based list of medicines for victims of disasters. Other research points at the possibility to construct networks of academic health centers, which can act as a resource for already highly affected community hospitals (Dunlop, Logue, Beltran, & Isakov., 2011). Communication streams between hospitals should be actively used (Simon & Teperman, 2001).

Following Maslow’s pyramid and Hobfoll’s theory of resource loss, one can thus conclude that the basic physical needs of victims are concerned with physical safety and medical care. When it comes to Hobfoll’s resources it is safe to say that victims who have these needs will be concerned with objects like supplies such as medication, food, clothing and money, and a roof above their head (Hobfoll, 1991; Murdoch & Cymet, 2006).

Many victims however do not only suffer from physical complaints. Psychological issues as well as somatic complaints occur in many victims of disasters and calamities (Norris et al, 2002). The next paragraph will deal with psychological needs of victims of disasters.

### 4.2.2 The bottom of the pyramid: Basic psychological needs

Although perhaps not as apparent at first sight as physical injury, disasters are likely to also have psychological consequences on victims, and psychological wellbeing is just as well a part of health as physical wellbeing. Therefore, victims of disasters and calamities have basic psychological needs just as they have basic physical needs. Many survivors experience anxiety, shock, anguish and various other symptoms associated with acute stress. Stress reactions involve a wide range of experiences like re-experiencing the traumatic event, insomnia, emotional disengagement, and difficulties with memory, decision-making, and
concentration (Ruzek et al., 2008). Others have nightmares or suffer from psychosomatic symptoms (Norris et al., 2002). Somatic complaints are unexplained symptoms (also labeled “medically unexplained symptoms”), a term used to describe physical symptoms that lead to care-seeking, but turn out to have no clinically determined pathogenesis after a diagnostic analysis (Clauw et al., 2003).

Although prevalence rates of psychological issues in victims of disasters differ greatly per scientific study, and some even claim that psychological problems are rare in victims of disasters and calamities, there is always a proportion suffering from psychological problems in a population, at least to some extent (Wood & Cowan, 1991), (Gray, Maguen, & Litz, 2004).

Most victims do not require professional assistance in relationship to their complaints: mostly, complaints diminish and victims return to normal functioning in a reasonable amount of time (Gray et al., 2004; Lacy & Benedek, 2003; Ruzek et al., 2008; Shalev, Tuval-Mashiach, & Hadar, 2004; Van der Velden et al., 2009). Contributing factors like individual vulnerability, type and severity of trauma and the individual response to trauma are critical aspects in the development of psychological problems (Shalev et al., 2004).

Many psychological issues have been identified among disaster victims. One of the most studied stress disorders within scientific literature may be post-traumatic stress disorder (PTSD), and an overview of its epidemiology and symptomatology will provide an understanding of one of the possible consequences of experiencing traumatic stress due to a disaster or calamity. Between 9% and 38% of victims exposed to traumatic events will develop PTSD (Ruzek et al., 2008). The official definition of post-traumatic stress disorder was included in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) in 1980. This definition states that PTSD follows exposure to an extremely traumatic stress which involved direct personal experience and threat of death, serious injury, or for instance witnessing these threats to others. The person’s response then must involve helplessness or intense fear. Characteristic symptoms include re-experiencing the traumatic event, avoidance of stimuli that can be associated with the trauma. Another feature is numbing of general responsiveness and persistent, long-lasting symptoms of arousal. All symptoms must be present for more than one month and cause significant distress or social or occupational impairment (DSM-IV-TR, 2000).

The disorder can thus severely affect one’s quality of life and normal functioning. Previous studies show significantly higher rates of suicide attempts among individuals suffering from PTSD and among chronic patients high rates of hospitalization and psychiatric illness (Otero & Njenga, 2006), and PTSD is highly correlated with somatic complaints, dissociation and affect dysregulation (Kolk, van der, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996). Other identified psychological disorders in victims of disasters are major depression disorder (MDD), panic disorder (PD) and generalized anxiety disorder (GAD) (Norris et al., 2002).

In order to minimize long-term psychological problems among victims of disasters, some studies point at the importance of offering direct psychological care to victims (Corrarino, 2008; Fox, Burkle, Bass, Pia, Epstein & Markenson, 2012). A review of 58 peer-reviewed journals by Fox et al. (2012) ends by concluding that, although there is no empirical evidence
on exact treatment methods, all disaster assessment team members should be able to provide psychological first aid and therefore follow a course. Also, they plea for psychological first aid to be included in nurses assistant training and lifeguard training, since ‘there is wide support by expert opinion and rational conjecture to demonstrate that psychological first aid offers an acceptable intervention option to be provided by trained volunteers (those without professional mental health training) for people who have experienced a traumatic event’ (pp. 249). Psychological first aid should, ideally, bolster resilience, prevent the development of further psychological issues and minimize later reductions in the quality of the life of victims (Shalev et al., 2004).

However, not all studies agree on the subject of immediate psychological care. A study stating that there is no empirical evidence supporting the hypothesis that psychological first aid immediately after disasters is helpful to victims is that of Boris, Ou and Singh (2005). In this article the intervention method of critical incident stress debriefing (CISD) is even completely rejected. This is an often used method in the United States and involves a structured 7-phase single-session therapy conducted 24 to 72 hours after the traumatic event. During these sessions counselors talk to victims and use the process of disclosure in order to help them recount the details of their traumatic experience. The authors state that this intervention method is not only ineffective; it can even be harmful to victims. This study states that psychological intervention should not start until 2-3 weeks post-event, and the first weeks after trauma should be used to reestablish victim’s routines, and, from a neurobiological perspective, active promotion of adequate sleep.

It must be kept in mind that although psychological first aid can contribute to victim’s initial needs according to many scientific studies, it does not account for long-term mental health problems. Although psychological first aid may account for the needs of the majority of victims of disasters and calamities, a sizable proportion of individuals develops longer-lasting mental health problems following a disaster (Rodriguez & Kohn, 2008). These consequences should be assessed by a professional and educated staff. Therapeutic intervention methods are needed in order for professional psychological health workers to effectively treat psychological problems of victims of disasters. Treatments to reduce traumatic stress can be divided into individual-focused and group-focused methods (Lacy & Benedek, 2003). Since the reaction to trauma differs per individual, intervention methods and guidelines on these are recommended to be flexible (Van der Velden et al., 2009). The most often used forms of therapy used for individual treatment for traumatic stress are cognitive behavioral theory, exposure theory and eye movement desensitization and reprocessing (EMDR) (Harvey, Bryant & Tarrier, 2003). The efficacy of the first type in the treatment of ongoing traumatic stress in these victims is well established by scientific studies (Harvey et al. 2003; Ruzek et al., 2008; Stoddard et al., 2011). In for instance Ruzek et al. (2008) cognitive behavioral therapy is discussed as an effective treatment method for PTSD. It involves the modification of maladapted behaviors and cognitive processes. The assumption behind this type of treatment is that clinical problems such as PTSD, substance abuse and depression are learned responses which can be re-learned and thus changed. A study by Boris et al. (2005) also pleas for the use of cognitive behavioral therapy and claims that, in case of an extremely large number of victims, this type of therapy can also be conducted by telephone or internet. According to a
study by Kaplan, Iancu and Bodner (2001) states that ‘psychological debriefing’ in exposure therapy can be used to relieve and prevent event-related distress in victims. The goal of psychological debriefing is preventing the development of permanent emotional damage by the enabling of cognitive appraisal and emotional processing of the traumatic event. Eye movement desensitization and reprocessing (EMDR) involves integrative therapy that unlocks disturbing beliefs or memories and reprocesses them in a way, so they are no longer as disabling. EMDR is used for several psychological problems and has proven to be especially effective for traumatic imagery associated with PTSD. A primary benefit of EMDR pointed at by research is its time efficiency, requiring only 3 to 5 hours of treatment (Lee, Beaton & Ensign, 2003).

Empirically proven effective group-based psychological health interventions then are for instance family therapy (Miller, 2004), or offering community based psycho-education about post–disaster reactions included among public health interventions to reduce PTSD symptoms after disasters and calamities (Hobfoll et al., 2007). The effects of pharmacological approaches to induce calming and thus reduce stress are little studied, although there are a number of medications that gain acceptance, like for instance anti--adrenergic agents, antidepressants, and conventional anxiolytics (Hobfoll et al., 2007). For somatic complaints, which are as described before clinically unexplainable, establishing a general intervention method is problematic. A scientific study by Clauw et al. (2003) pleas for individual focused care in which both non-pharmalogic therapy such as cognitive behavioral therapy or aerobic exercise as well as pharmalogic medication treatment can be successful intervention methods.

In order to get appropriate treatment, access to (mental) health interventions to victims is thus crucial in the aftermath of disasters and calamities and victims should be informed on how to obtain this mental care.

### 4.2.3 The need for safety

Few studies have been conducted on the specific safety needs of victims of disasters and calamities, perhaps for the reason that it seems a ‘simple’ need; victims have been endangered and are in a threatening situation, thus a direct need is the reestablishment of safety. In a study by Hobfoll et al. (2007) the ongoing perception of feeling unsafe will lead to the persistence of negative post-trauma reactions such as feelings of anxiety and distress. Reestablishing safety of victims of disasters and calamities is thus a necessity and although this need may at first sight seem simple to fulfill, practice shows us otherwise. In fact, large-scale disasters often result in significant disorganization since they occur suddenly, involve danger to a large population, and are basically overwhelming. This puts the safety needs of many at risk (Leon, 2004). Depending on the scale of the disaster or calamity, the evacuation can involve entire communities, and therefore put family and community systems for social support at risk. In a review by Murdoch and Cymet (2006) is stated that “A disaster destroys the infrastructure of a community” (pp. 39). In case of the need of permanent evacuation to a new location the unity of a community is indeed at risk, and even separation from family members can occur.
Thus, although bringing victims into a safe situation is the first priority, there should also be a focus on preventing the disruption of families. The psychosocial impact of disasters can be diminished by taking this into account in evacuation programs conducted for the aftermath of disasters (Leon, 2004). Also, services can and should be provided to victims to help them getting their lives back in place, like housing or employment services, relocation aid, replacement of household goods and clean-up and rebuilding (Hobfoll et al., 2007).

### 4.2.4 The need for belonging

After a disaster or calamity, religious services show increases in attendances rates. One of the main reasons is that religious institutions can offer social support and fulfill the need to belong to a social group (Bell Meisenhelder, 2002). Social support is another important resource often mentioned by literature. Hobfoll states that social support is one of the most important resources since it functions to bolster self-esteem, which will in turn decrease chances of for instance depression after serious losses causes by a disaster or calamity. Because of this ‘mental boost’ one has less trouble with coping in the process of limiting resource loss (Hobfoll, 1991). Following Maslow’s theory, self-esteem already is at risk during a disaster or calamity, since the basic needs are threatened and thus no attention will go out to higher ranked needs like esteem and self-actualization needs. What doubles the threat to the need for belonging is the fact that during disasters or calamities, entire communities can be disrupted: the social health of society is at risk. Social health can be seen as a broad concept encompassing all interpersonal relationships like friends, family, community and social support. All these social relationships can be under pressure during disasters and calamities, while social resources can mediate psychological stress (King & Steinmann, 2007; Landau, Mittal & Wieling, 2008). The provision of social support should thus also be accounted for in treating victims, especially if social support is at risk due to evacuation, as mentioned in the previous paragraph. Special attention should go out to the preservation of families (Leon, 2004). External aid is often required in the management of for instance evacuation programs, since the infrastructure of communities can be destroyed (Murdoch & Cymet, 2006).

Social support is both an important short-term as well as a long-term factor in victims treatment following disasters. Following Maslow’s pyramid and Hobfoll’s theory of resource loss, it is likely that victims struggling with the need for belonging are in need of social support, which can be classified among Hobfoll’s conditions.

In line with the belief in the need for social strength after disasters and calamities is the idea of community resilience. In the United States, the Homeland Security Presidential Directive-21 was signed. In this Directive, community resilience was identified as a critical component of public health preparedness. Community disaster resilience is a community’s ability to contain the effects of disasters, mitigate hazards, and to carry out recovery activities to minimize social disruption and mitigate effects of disasters in the future (Dunlop et al, 2011). Indeed, several studies confirm the significance of communities and family networks (Landau et al., 2008; Walsh, 2007). Empirical evidence shows that, particularly in traumatic situations, the family and community are optimal providers of social support. This is supported by a study of Shalev et al. (2004), stating that the community offers the basic source of social
support. Victims suffering traumatic loss are especially in need of this support, and since families share the same belief systems, they offer the most understanding source of support. Keeping and bringing victims together can be seen as a promoting factor of cohesion in communities and is recommended. This is in line with the ‘continuity principle’ which is explained in a review by Omer and Alon (1994) and claims that through all stages of disaster, the treatment and management should mainly aim at the preservation and restoration of functional, historical, and interpersonal continuities, at all social micro-levels, namely the individual, family, organization and community level. The authors state that with the strength of communities, victims’ resilience increases significantly. This is a statement shared by Murdoch & Cymet (2006), who claim that victims are in need of the re-establishment of social interactions and that this can be seen as part of the recovery process. This can only happen with the help of authorities by providing accurate information for victims and clear directions, in a disaster situation which is already characterized by general chaos.

4.3 The need for planning and preparation

The most crucial aspect of disaster management coming forward from the scientific field is undoubtedly planning and preparation. Although it may not seem a direct victim need, this aspect of disaster response and victim treatment is given attention in a significant amount of studies and should not be left unmentioned as a general public need at times of crisis. It is an important factor in many fields of crisis response, from evacuation, to hospital access, to the establishing of disaster management teams, to the distribution of information (Briggs, 2005; Corrarino, 2008; May & Aulisio, 2006; McComas, 2006; Perry & Lindell, 2003). A study by McComas (2006) describes the need for a strategic risk communication system. A seemingly simple matter like informing victims should be, according to the authors, well-thought of and carefully designed. Civil communication and coordination centers need to be positioned strategically. As stated in Simon & Teperman (2001): “Military strategists do not place their headquarters on the front line. The same should be true for all key civil communication and coordination centers. These centers should be housed in areas unlikely to be direct targets or at risk for collateral damage” (pp. 319). Communication and information services need to reach many victims in a situation that is likely to be chaotic at least in some way. Issues like loss of electricity and destruction of infrastructure can put communication even more at risk, so pre-event precaution measures are a necessity to minimize the disaster impact (McComas, 2006). Also, especially in high-impact events, donation flows from the public and government should be managed, as well as supplies and aiding workers (Murdoch & Cymet, 2006).

4.4 Terrorism: a different story?

Several studies point out that victims of terrorism often experience even more severe psychological distress that those falling victim to natural disasters. Since one of the Dutch disasters that will be taken into account in the next chapter that analyzes governmental reports on victim aid is a terrorist act, this is a matter that should be taken into account.
Some studies claim that due to the intentionality of terrorist acts victims experience more stress than victims of natural disasters (Miller, 2004; Stoddard et al, 2011). Terrorism is the actual violence or threat of violence against civilians to gain ideological, political or religious goal through intimidation and spreading fear, and victims are likely to therefore experience anxiety and fear-related issues. After all the aim of terrorism is not just killing but rather intimidating a nation and its politics (Rubin, Amlôt & Wessely, 2008). In a review by Miller is stated that the United States of America feel personally attacked by terrorism and since its main goal is psychological harming, trained, skilled and experienced clinical health workers play a vital part in the aftermath of it. Sederer even states that terrorism damages trust in others in such a way that recovering psychologically can be challenging (2012).

A review by Carli, Telion and Baker (2003) makes clear that the main interest that victims have according to French government guidelines directly after a terrorist attack are an alert system to warn all civilians, a search and rescue plan in case of emergency, triage of victims and the provision of critical care to victims in the most severe medical need. Also included in the emergency medical response plan, is the logistic movement of victims to hospitals requires careful regulations, and the fact that victims should be offered psychological assistance.

4.5 Conclusions based on scientific arguments

Concluding from this scientific literature study, according to the scientific field, the significant psychosocial needs of victims of disasters that are in line with Maslow’s Hierarchy of Needs and Hobfoll’s Theory of Resource Loss are physical and medical needs, psychological needs, safety needs and the need to belong. The most basic physiological needs consist of the provision of food, water and medical supplies. The spreading and division of these, as well as possible donations by the public and use of health services, should be monitored closely and planned strategically. The most basic psychological needs consist of the reducing of (traumatic) stress and the reestablishment of calmness in victims. Direct psychological care provided to victims of disasters and calamities is advised by many studies, although some studies question or contradict this. For long-term psychological treatment, for instance for PTSD patients, cognitive behavioral therapy, exposure therapy and EMDR turn out significantly effective treatment methods.

Another need discussed was the need for safety. According to scientific literature, communication systems, information services and evacuation programs are important aspects when it comes to fulfilling these needs. The next need that came up in the literature study then, following Maslow’s Hierarchy of Needs and Hobfoll’s Theory of Resource Loss, was the need to belong and was linked to the aspect of social support. Lastly, the general need for planning and preparation was discussed and an overall need for being prepared was described.

Different types of needs require different intervention methods and treatment strategies. In different stages of the aftermath of the disaster or calamity, different treatment providers are required, for instance directly after the disaster or a few weeks later. In the next chapter, reports on actual disasters that analyze victim care will be studied in order to establish what view the practical field has on what victim treatment should look like.
5 Psychosocial Needs of Victims of Disasters according to Practice

Within this chapter, governmental reports and those of independent research organizations judging the victim care after contemporary Dutch disasters will be analyzed in order to get an insight on the view of adequate treatment of victims of disasters and calamities according to practice. Victim needs established during the systematic scientific literature study in the previous chapter (basic physical and psychological needs, safety needs, the need to belong and the importance of pre-disaster planning) will be the thread running through this chapter. For an overview of the reports under analysis, see table 3.2 (pp. 12).

The first disaster that was taken into account was a fire in a bar in Volendam, a city in the Netherlands. During a party on New Year’s night, the use of fireworks indoors led to a massive fire. Mostly young people were inside and 14 people lost their lives. A total of 241 victims were admitted to the hospital, of which 200 suffered serious burn injury (Inspection of National Health, 2001). The second disaster focused on in this study will was the Schiphol fire, a fire in a detention center at the airport Schiphol in Amsterdam in 2005. At the time of the disaster, the center housed 298 illegal persons, awaiting their deportation. Of these, 11 lost their lives. 15 people were injured, including some of the guards (Inspectorate Security and Justice, 2006). The third calamity taken into account, the Queen’s Day attack, can be categorized as a terrorist act. On Queen’s Day 2009, a car was used in an attack on the bus transporting the Dutch royal family. The attack resulted in eight deaths and ten injuries of civilians (Inspectorate Security and Justice, 2009). The last disaster that was studied was a shooting in a shopping mall in Alphen aan den Rijn. 24-year-old Tristan van der Vlis started shooting in public, eventually resulting in the death of seven people (Inspectorate Security and Justice, 2011).

Apart from all these reports on specific disasters and calamities, the Multidisciplinary Guideline on the early psychosocial intervention after calamities, terrorism and other shocking events, published in 2007 by the Dutch Bureau of National Health, will be analyzed in order to get a view on contemporary guidelines on the treatment of victims.

As stated before, the reports presented in table 3.2 will be assessed in terms of consideration and fulfillment of victim needs. The same order of significance of needs established in the previous chapters will be used here, starting with the basic physiological needs.

5.1 The bottom of the pyramid: Basic physiological needs

The first type of victim needs that came up during the scientific literature study were the basic physiological needs, including for instance food, water and medication. In the reports, attention for basic physiological needs of victims focused mainly on sheltering victims and fulfilling their medical needs.
The report showing the most medical preparedness in a crisis situation is that covering the terrorist act on Queen’s Day 2009 (Inspectorate Security and Justice, 2009). Here there was a preparation plan, namely a medical scenario for crisis situations based on risk analyses. There was a plan made on safety measures, including medical ones. It is stated in the report that “72 health workers were positioned in the direct surroundings of the event, mainly members of the Red Cross, to position the seven first-aid posts situated next to the route (where the queen passes), including leading and coordinating staff”. There were also three staffed ambulances available in the direct surroundings. On top of this there was high-quality staff available for emergency medical care (pp. 181). Within three minutes after the event took place an ambulance had arrived and initial triage started (pp. 270). After almost one hour, all injured victims were taken to surrounding hospitals, using a total of 16 ambulances for 17 rides.

Also, a protocol was developed pre-disaster, considering the communication between medical institutions involved in a possible aftermath of an incident. This protocol was described in the Multidisciplinary Guideline of Queen’s Day Apeldoorn 2009, and linked the communication systems of all involved institutions (pp. 183). A protocol for triage of victims at disaster sites was available as well, resulting in the effective classification of victims in order of medical priority (pp. 271). According to the report a communication stream between hospitals and crisis organizations is still missing, but the overall conclusion of the research committee about the fulfillment of physical victim needs would be a positive one. A note that must be added to this however is the fact that the preparedness in this disaster directly resulted from the nature of the event. Since the Royal Family would be present and a crowd was expected, (safety) preparations for handling calamities were made (pp. 72).

In the report covering the bar fire in Volendam in 2000 for instance is stated that “Victim care in hospitals can be improved by more effective communication on the expected number of victims. Communication between emergency care organizations and hospitals was not optimal and needs further structuring” (pp. 13). Also, communication streams between hospitals were not optimally used (Inspection of National Health, 2001). Another statement in the report says that the capacity of hospitals in surrounding areas was not fully used thanks to a lack of communication (pp. 12). Another report mentioning a lack of communication between emergency care organizations and hospitals is that covering the Alphen aan den Rijn shooting. Here it is mentioned that in the report on the Queen’s Day disaster (Inspectorate Security and Justice, 2009) it was already advised that the Multidisciplinary Guideline for linking communication systems of all victim aiding organizations would become a national one, something that still had not been accomplished in 2011 (pp. 13) (Inspectorate Security and Justice, 2011). Due to communication difficulties in the medical field, victim needs are thus at risk. This is confirmed by another example from the report on the shooting, in which is explained that due to communication issues it was not clear to some of the ambulance personnel when the mall was safe to enter and start the rescue of victims (pp. 11) (Inspectorate Security and Justice, 2011). This resulted in unnecessary delays in providing medical care to the victims.

Finally, the Schiphol fire seems to differ in some way of the other disasters under study due to its type of victims: these were illegal persons locked up in a detention center near the airport.
awaiting their deportation. After the outbreak of the fire, these individuals could not be released and it was a priority to secure their detention (Inspectorate Security and Justice, 2006). It is stated in the report that aftercare should involve registration and informing of victims and offering medical, psychosocial and material care (pp. 127). Also, it is mentioned that “all prisoners should receive acute care like first aid, blankets, and water, and should receive medical treatment if needed (pp. 132). However, after the outbreak of the fire all prisoners had to be evacuated and locked up in other parts of the center, leading to panic among many prisoners. It is stated that guards “tried to keep them calm, and handed out pain killers and sedatives from outside the gates”. Acute medical care and evacuation of victims was thus delayed as a result of a flight risk of the detainees. Some blankets were handed out initially, although it took another hour for extra blankets and drinks to be spread among the prisoners (pp. 139). Another hour later prisoners were medically checked (two of them were sent to the hospital with respiratory complaints), after which they were transported to another detention center.

Overall, the reports attention for basic physiological needs was focused mainly on acute medical care and improving communication streams (both between hospitals and between acute care organizations and hospitals). In practice, basic physiological needs are not always optimally met because of a lack of preparation, communication problems or because of other priorities such as safety or in the case of the Schiphol fire, where preventing the escape of the detainees seemed the main priority.

5.2 The bottom of the pyramid: Basic psychological needs

The Multidisciplinary Guideline was set up to provide recommendations on early intervention for victims of disasters and calamities based on scientific arguments to eliminate actions that have no evidence of efficacy.

The Multidisciplinary Guideline, which is based on findings from scientific research, states that scientific studies show mixed outcomes, especially on the offering of direct psychological care to victims, “resulting in the carrying out of interventions in practice which have no scientific empirical evidence of efficacy, or even haven’t been studied at all” (Part I, pp. 11).

The Multidisciplinary Guideline agrees with the scientific literature that most victims show a certain degree of resilience and will not suffer from any long-term psychological complaints. Early screening for psychological complaints is rejected in the Guideline, for the reason that most complaints of stress are “normal reactions to abnormal events” (Part I, pp. 13), a statement also found repeatedly in scientific studies.

In the report on the Volendam bar fire it is repeatedly stated that psychosocial care of victims in the aftermath of the disaster needs improvement. The report mentions that at the time of the disaster, there were no clearly structured procedures considering psychosocial care of victims (pp. 84), while it is stated that they were required and needed (pp. 107). The report states that the psychosocial care of victims was ‘adequate’, but no details are provided on this psychosocial care (pp. 84 & 85) (Inspection of National Health, 2001). The report simply
states that victim aid organizations were informed and that the provision of information to victims was satisfactory.

At the time of this disaster, psychosocial care was also not included in hospital emergency plans for disasters and calamities. An interesting statement is that ‘some victims refused psychosocial care, which might have to do with an unstructured supply’ (pp.134). There are no scientific arguments stating that treatment methods for victims need to be structured. Rather, research pointed at the need for treatment to be flexible and, if necessary, very personal and individual-focused, even if general guidelines describe different methods (Van der Velden et al., 2009).

Later on in the report it becomes clear, however, that there was some structure in the treating of victims in hospitals. Hospitalized victims of the Volendam fire were categorized into three groups of victims: those with minor burn injuries, those with severe burn injuries who could breathe on their own and victims with severe burn injuries who could not breathe independently. Victims with minor burn injuries were ‘shortly psychologically treated’, after which their psychosocial care was handed over to other victim aid organizations (pp. 121). It thus looks like psychological first aid was provided, however there is no further detailed information on how patients were ‘treated’. The same goes for patients from the other two groups who did suffer from serious burn injuries. The report on the aftermath of the Volendam bar fire does state that patients received counseling from a psychiatrist or the psychosocial hospital team ‘if necessary or requested’, but does not specify any details on treatment methods of this psychosocial care. Also, it doesn’t go into the long-term health effects of victims of the disaster. In the Multidisciplinary Guideline is described how the psychological health effects of this event lasted a lot longer than anticipated shortly post-disaster (Part I, pp. 11). An overall conclusion on the psychosocial care to victims described in this report shows an overall unpreparedness, and lack of long-term vision. Also, it remains vague using terms as ‘adequate’ to judge psychosocial care while no expectations or plans were established at forehand, and long-term effects for victims are not taken into account.

In the introduction of the report judging the treatment of victims of a fire in a detention center in Schiphol airport the psychosocial care is more structurally described. It is stated that (after) care of calamities involves the use of staff and resources to reestablish a stable situation so that normal life for victims can be resumed, and that psychosocial care is an aspect that is part of care (pp. 127) (Inspectorate Security and Justice, 2006).

Also, there was a structured plan for the care of victims. The aftermath of a disaster is divided into several stages: an acute phase (the first seven days directly after the disaster or calamity took place), the first phase (from the first week after the event till three months post-disaster) and the second phase (lasting from three months post-event up till ‘months or years’). In the report is stated that after large-scale calamities “victims are in need of practical, social and emotional support. Therefore, psychosocial care in the acute phase is practical and not medical of nature” (pp. 128). This is in line with conclusions from the literature study and previously mentioned statements from the Multidisciplinary Guideline. The statement continues by saying that in the acute phase the reestablishment of a sense of control and a feeling of safety, and offering social support are prime needs of victims. It is also stated psychosocial care can contribute to this by offering psycho-education and offering
information on the event and its consequences to victims. This is in line with the idea and statement in the Guideline that stress reactions after trauma are ‘normal reactions to abnormal events’ (Part I, pp. 13). However, there is no further detailed information, just as in the Volendam report (Inspection of National Health, 2001) on immediate aid offered to victims. Rather, the report is concerned with the fact that the ‘victims’ in this case are illegal persons and therefore the first step is evacuation to another detention center during the acute phase (pp. 129). It is already in this acute phase where issues were raised considering the psychosocial care of victims. The report states that “an important group who needed aftercare, namely the prisoners, involved people in criminal custody who could not simply be released”. The victimized prisoners were housed at a penitentiary institution. While it is the responsibility of the detention center to provide care within the center itself, and in case of evacuation to other centers (like after the fire), to both prepare for as well as monitor aftercare (pp. 129), there seems little attention to immediate care offered to victims with a strong focus on evacuation and preventing escape scenes, and the report shows no attention to longer-term victim care. While there is in fact a scientifically based emergency plan on psychosocial victim care in the case of this disaster, the report shows no evidence on the actual following through of this plan. Instead of being treated as possibly traumatized victims, the prisoners were treated as criminals and the report does not show much actual attention awarded to their psychological needs.

The next disaster that was examines was the terrorist act during Queen’s Day 2009. In the report analyzing the aftermath of this disaster is stated that it was expected that direct victims were in need of shelter and care, and therefore a crisis center was housed in the city theater. In contrast with expectations, no victims came to this center in the end, while victims of terrorism are expected to experience even more psychological harm due to the intentionality of their victimization (Inspectorate Security and Justice, 2009). However, when reading the report more closely, it becomes clear that, while the disaster took place at 11:50AM, the crisis center was not accessible until around 4:30PM (pp. 282). Assuming that many victims were tourists coming from other parts of the country to see the Royal Family, it is likely that many victims already headed home at this point. One could thus conclude that, while there was an initiative to open a crisis center for victims, this plan was carried out to slow and thus lost its effectiveness. The report however concludes that there was simply no need for shelter and care among victims. The report does not give any information on long-term victim care. It is stated that from around 8:00PM the website of the community of Apeldoorn offered information numbers for victims and relatives, but attention to psychosocial victim care seems to end there (pp. 284).

The last disaster focused on in this study then was the shooting in a shopping mall in Alphen aan den Rijn in 2011 (Inspectorate Security and Justice, 2011). In the beginning of the report is stated that the organizations involved in the psychosocial care of victims “are all independently operating institutions and that this is an issue in psychosocial care (pp. 12). Also, early in the report it is concluded that immediately after the event in the acute phase, the psychosocial care was initiated too slowly (pp. 14). Indeed, almost an hour went by before the organization responsible for psychosocial care was even contacted. Another four hours passed
until this team was finally complete, and up until this point the psychosocial care of victims was in the hands of (untrained) civil servants (pp. 70). This care is characterized by a practical nature, mainly involved in housing and feeding victims (pp. 67).

The ‘aftercare process’ then is discussed in a meeting the next day, and will be carried out by several organizations involved with care for victims of disasters and calamities. However, no further detailed is provided on this care or treatment methods that will be used. The report states that two phone numbers were initiated for victims to call to, but, as mentioned, no further information on details of psychosocial aftercare was provided in the report (pp. 70).

Analyzing the Multidisciplinary Guideline and the reports it becomes clear that, especially with the passing of time, more and more theoretical attention has been awarded to psychosocial victim needs. Protocols on psychosocial care did not exist during the first disaster that was examined, the bar fire in Volendam, and they were stated to be needed. Protocols and guidelines are developed today, but in practice there is still room for improvement. Psychological victim needs seem to be recognized, but there is little attention to the actual care provided to fulfill these needs. Empirical evidence should be collected in order to establish effective methods, which in turn can be used in practice.

5.3 The need for safety

Judging the reports on contemporary Dutch disasters, one of them stands out when it comes to the need of victim safety and that is the report on the Schiphol fire in a detention center (Inspectorate Security and Justice, 2006). Ten prisoners lost their lives during this fire since a total of five cells in which they were held were not opened. It seems like the entire system of opening cell doors by hand was just not safe enough, since guards had only one minute to free prisoners until smoke had developed in the cellblock in such a way that they had to flee themselves. The prisoners that were freed from their cells were evacuated to other parts of the center where they were locked in together. Although this was a safe place, circumstances were harsh (many only received blankets after an hour and drinks took an hour to start being spread) and the question arises whether evacuation of prisoners was even planned beforehand (pp.132). They were locked in this situation for one and a half hour, until they were medically examined and evacuated to another detention center. It seems like the ‘safety of society’ (and thus the detention of the victims) was more important than the safety of the prisoners.

In the report on the Queen’s Day attack in 2009 a ‘safe haven’ for victims was supposed to be created in the city theater, but as explained in the previous paragraph, this took about four and a half hours (pp. 282). As concluded in the literature study, although the safety needs of victims at forehand seem easy to fulfill, practice shows that pitfalls do exist. The other reports show more attention to the safety needs of victims. In the case of the Volendam bar fire, the first sheltering of victims happened mostly in bars in the area of the one in which the outbreak of the fire happened (Inspection of National Health, 2001). After the arriving of several types of disaster management team, it is stated, “the care was more structured and the evacuation of victims systematic” (pp. 10). These teams transported victims to hospitals, where triage was conducted in order to assess patient’s need of specialized care for burn injury (pp. 113)
During the shooting in a shopping mall in Alphen aan den Rijn the safety of victims could not be assured until the offender had been caught (Inspectorate Security and Justice, 2011). After it was established that the man had shot himself, the focus of police officers shifted from catching the offender to offering first aid to and evacuating of victims (pp. 53). After that the evacuation to a close-by community center started, stated not to raise any notable issues (pp. 54-55).

One thing that becomes clear on the safety needs of victims is that they differ greatly per disaster or calamity. Safety measures to be taken are highly context dependent, as becomes clear from for instance the care of detainees in the detention center at Schiphol airport. Another conclusion would be that when it comes to assuring victims their safety, time is a risk factor. The reports on for example the Queen’s Day attack and the Schiphol fire both show slow anticipation by involved agents when it comes to creating a ‘safe spot’ for victims (for different reasons). This can result in the ongoing perception of stress and traumatic complaints, since safety is not reassured (Hobfoll et al., 2007).

5.4 The need to belong

The need to belong or the need for social support turns out to be an often forgotten victim need in practice. Scientific studies showed that social support can significantly decrease the prevalence of long-term stress symptoms among victims of disasters and calamities. The Multidisciplinary Guideline on early psychosocial intervention for victims of disasters and calamities states that “as soon as victim’s safety is reassured, the offering of practical support with an empathic attitude towards them is the first priority, as well as stimulating victims to make use of their own social resources” (Part I, pp. 43).

As stated before, in practice this is not as easy as it sounds, for instance in the case of the fire in a detention center in Schiphol, where victims were illegal persons from abroad (Inspectorate Security and Justice, 2006). In this case personal social resources were not available, so it would be advisable that social support is offered by other sources. This is indeed what is described in the emergency plan for calamities in the detention center, in which is stated that in first place social care should be involved in the supporting of victims by trusted others (pp. 127), contact with relatives should be restored (pp. 131), victims should be able to receive social support from fellow-sufferers, relatives or others and victims should be able to tell their story (pp. 132). In practice, as described before, the first few hours after the fire victims were locked up in harsh circumstances, and even the relocating of the prisoners to a specific other detention center is expected to lead to a decrease in possible access to social support. Therefore, detainees that were expected to develop traumatic complaints were sent elsewhere (pp. 154). However, it was concluded in the literature study that limited or no access to social support will lead to the further development of traumatic stress, so patients who might not have been at risk at forehand, will become more at risk due to their relocation.
Another example in which victims were unlikely to have direct face-to-face access to personal social resources is the attack during Queen’s Day, in which the group of victims consisted of many people just visiting the town to see the queen. As described before, the setting up of a crisis center in the city theater took so much time that in the end no victims showed up here, while victims of terrorist acts were expected to be at extra high risk for developing traumatic stress symptoms and therefore in extra need of social support. Here too, offering social support to victims thus did not seem a priority (Inspectorate Security and Justice, 2009).

In the report on the Volendam disaster is no information specifically on the offering of social support at the disaster site. Understandable, the situation was at that point chaotic and focused on the evacuation of living and removing of deceased victims (Inspection of National Health, 2001). It is stated however that hospitals, to which relatives came in search of victims, were not prepared for the sheltering of relatively large groups of, often very emotional, family members (pp. 122). If the spreading of victims over a larger number of hospitals had taken place, an issue described before, then the relative number of family members per hospital would also be easier to handle. Now, both direct victims’ as well as their relatives’ need for social support are at stake.

The report on the aftermath of the shooting in Alphen aan den Rijn shows no preparedness when it comes to offering social support to victims (Inspectorate Security and Justice, 2011). After their safety has been reassured by relocation in two community centers, victims are cared for by two civil servants and two pastoral servants. However, in the report is stated that care at this point was practical and involved ensuring the physical safety of victims and the provision of nutrition (pp. 67). The civil servants were not trained to handle possibly traumatized victims. It took around two and a half hours for specialized victim aid workers to get to the scene and offer their support (pp. 69).

In the long run, the need for social support of victims of the calamity seems better accounted for. A positive aspect mentioned in the report is the fact that memorial services were set up, which can serve as meeting place for victims to receive support. Also, victims who lost a close family member would receive mourning therapy (pp. 36).

Of the need of social support for victims of disasters and calamities it can thus be stated that with the passing of time more attention has started to go out to it, although there is still room for improvement. It becomes clear from the disasters under analysis that during times of crisis attention mainly goes out to physical safety for victims and the socially supporting of victims is often forgotten or not conducted adequately.

5.5 The need for planning and preparation

The most significant aspect in disaster management resulting from the scientific literature study turned out to be preparedness. This preparedness can only result from pre-event dedication and planning on multiple aspects. Physiological, psychological, safety and belonging needs of victims of disasters or calamities are all depending on planning and preparation in some way.
The biggest concern expressed in the report on the aftermath of the Volendam disaster was a communication issue. In the report is spoken about a transmitter responsible for the communication in and to Volendam was weak, and therefore communication methods were limited (pp. 85). The authorities had already been aware of the issue for two years and have been criticized for the issue. One of the main conclusions in the report is that communication lines always have to be protected for times of emergency like when a disaster strikes. In the case of Volendam, it led to problems in the communication around victim care (pp. 86). Also, communication between hospitals and emergency aid organizations showed issues. Furthermore, hospitals were unprepared for the large streams of direct victims and their concerned and emotional relatives. In the report on the Volendam bar fire it is repeatedly stated that at the time of the disaster, there were no clearly structured procedures considering psychosocial care of victims (pp. 84). Psychosocial care was not even included in hospital emergency plans for disasters and calamities (pp. 134). Points of improvement on medical preparedness thus also involve improving communication structures, so that the evacuation and submitting of victims to hospitals happens as effectively as possible in an already chaotic situation.

The disaster of a fire in a detention center at Schiphol Airport even showed a complete lack of practical preparedness for emergencies. Although detailed emergency plans on dealing with fire in the center are set up (pp. 59), practice shows disappointing results. Staff members of the detention center acted quickly, starting to open cells only three minutes after the initial fire started, but this had to be done by hand. The two guards had only one minute to free and rescue 31 prisoners, due to the development of the fire, until they had to flee themselves. Five cells remained closed, resulting in the deaths of eleven prisoners. Although theoretical guidelines were set up, the practical reality thus shows that the status quo was not ‘safe enough’. Simple mechanical adaption in the sense of automatically opening doors would have saved much precious time.

The aftermaths of respectively the terrorist act in Apeldoorn and the shooting in Alphen aan den Rijn show better preparedness by institutions involved in the treatment of victims (Inspectorate Security and Justice, 2009; Inspectorate Security and Justice, 2011). In Apeldoorn a firm strategic plan for the dealing with calamities was set up at forehand, leading to the right people in the right places. Only psychosocial care required more planning, and in particular the setting up of a safe zone for victims. In Alphen aan den Rijn there also was such a plan, and victims were quickly evacuated from the scene. However, once arrived at the location after evacuation there were no people there to offer support. The issue that could use more preparation is thus the social care for victims. Besides sheltering victims, offering them social support to should also be kept in mind.

One thing that became clear about planning and preparation is that it is a crucial factor in multiple aspects of victim aid. Medical preparedness, psychological intervention plans, evacuation programs and offering social support can all be labeled important factors in general preparedness for disasters and calamities. It can also be concluded that, even though especially during recent disasters many preparedness plans and programs exist, but the
carrying out of these in practice can be difficult due to unforeseen aspects coming up in the aftermath of the disaster.
6 Conclusion and Discussion

Within this chapter, conclusions from the scientific literature study in the fourth chapter will be compared to conclusions resulting from the analysis of reports in the fifth chapter. Scientific arguments explaining the psychosocial needs of victims of disasters and calamities will be used to provide for recommendations on contemporary victim care in the Netherlands.

6.1 Conclusions: Recommendations for practice

The first victim needs that came up during the scientific literature study, using a theoretical framework based on Maslow’s Hierarchy of Needs and Hobfoll’s Theory of Resource Loss, were the basic physiological needs, including for instance medication, food, and water. Main factors that fulfilled these victim needs coming forward from the literature study were health system preparedness, emergency plans for, for instance, the evacuation of victims and distribution of medical supplies, and active communication streams between involved institutions like disaster management teams or hospitals. The reports judging victim care in practice mainly focused on the offering of acute medical care and triage, and the improvement of communication between institutions involved in victim treatment after disasters. Effective communication and preparedness is concluded to be a key aspect in the fulfillment of medical victim needs and increasing of general health system medical preparedness towards disasters and calamities. The setting up of for instance emergency plans is recommended.

Next, psychological victim needs were examined. In the previous chapter was described how victims of disasters and calamities have basic psychological health needs next to basic physiological health needs. An ongoing perception of traumatic stress can result in several severe disorders like PTSD, so victims’ psychological needs must be taken into account during the aftermath of a disaster or calamity. These psychological victim needs can be divided into the direct psychological needs (immediately after the traumatizing event) and the more long-term psychological victim needs. Especially on direct post-event psychological intervention, scientific studies showed discrepancies and contradicted each other. This was also stated in the Multidisciplinary Guideline (2007). Within the literature study, some researches actively plead for the offering of direct psychological care to victims of disasters and calamities, while others reject it, claiming it to be ineffective or even harmful. However, the clearest aspect on psychological needs that was concluded from the literature study is that most victims show certain resilience and will not suffer from any long-term psychological complaints. Therefore, offering direct psychological interventions to victims is not recommended. Rather, the efficacy of direct psychological care should be empirically studied in order to find evidence for its effectiveness before the use of it in practice. In some disasters, like the bar fire in Volendam, direct psychological care seems to be offered but no detailed information is provided on this acute care, and the same goes for the more long-term psychological care offered to victims in most of the analyzed reports. Another recommendation for the practical field is therefore offering a more detailed representation of care awarded to victims in reports on the aftermath of
disasters. This will involve the more long-term monitoring of victims, but seems the only way to study the psychosocial effects of disasters and efficacy of treatment. From the scientific literature study was concluded that effective long-term intervention methods for traumatic stress were cognitive behavioral theory, exposure theory and eye movement desensitization and reprocessing. However, psychosocial care for victims after the acute phase in the aftermath of a disaster was not taken into account within any of the analyzed reports, so nothing can be stated here in terms of the efficacy of these interventions when it comes to the victims of the specific disasters taken into account.

Overall, when it comes to psychosocial victim needs, it can be concluded that especially with the passing of time, more and more theoretical attention has been awarded to psychosocial victim needs. In practice however there is still room for improvement. Psychological victim needs seem to be recognized, but there is little attention to the actual psychosocial care provided to fulfill the needs of victims of disasters and calamities. Empirical evidence should be collected in order to establish effective intervention methods for traumatic stress, especially when it comes to direct psychological interventions, which in turn can be used in practice.

The third type of psychosocial victim needs that were examined was the need for safety. An at first sight simple need was stated by scientific studies to be difficult to fulfill. Indeed, analyzing the reports on the aftermaths of disasters, assuring victims have a ‘safe spot’ turned out to be not as easy as it seems. Although in most disasters, a pre-disaster emergency plan for the evacuation of victims existed, in practice often there was no anticipated place for them to go or there were no people to assist them at this location. Because disasters and calamities are unique by nature, it turns out to be hard to anticipate on them beforehand. A recommendation for practice is that the aspect of time must always be taken into account: the sooner victim’s safety is reassured, the smaller their chance on experiencing long-term traumatic stress.

The fourth type of victim needs taken into account was the need for social support. According to studies in the scientific literature study, social support can significantly decrease the negative effects of traumatic stress on victims. After a disaster or calamity however, offering social support to victims often does not have the first priority. The first attention, understandably, goes out to reassuring public safety. Sometimes, as became clear from analyzing the reports, this happens at the cost of offering social support to victims, which is an often forgotten victim need. It is stated in some of the reports that victims should be stimulated to make use of their own sources of social support, but putting this into practice seems problematic. It is advisable that at least some form of social support is offered by authorities, also because victims sometimes don’t have access to their own social resources.

The last victim need that was established and taken into account was the more general need for planning and preparation, and can be linked to all aforementioned victim needs. The fulfillment of physical, psychological, safety and social needs all depend (at least to a certain extent) on planning and preparation. It therefore is recommended that all institutions involved in the care of victims in the aftermath of a disaster or calamity work by pre-event constructed emergency plans. If these programs are linked together, and communication between involved
institutions is used accordingly, victims have a much higher chance of seeing their needs fulfilled.

Overall, on the general attention for the psychosocial needs of victims of disasters and calamities it can be stated that over the years these needs have gained in attention, both in science as well as in practice. A good example is the conducting of the Multidisciplinary Guideline, which offers guidelines for practice based on scientific arguments. However, it also became clear that although attention to psychosocial victim needs has significantly increased, practice still leaves room for improvement, especially on the aspects of psychological needs, the need to belong and the general need for planning and preparation.

6.2 Discussion

Within this paragraph points of improvement of this study will be mentioned. The first recommendation for future research is to include interviews with people from the practical field like aid workers or medical personnel. These people can provide actual insight on the practical view on and issues around victim care. Due to time limitations this has not been done within this research.

Also, not all disasters that happened in the Netherlands in the past years have been taken into account. Adding these disasters to the analysis will provide a more complete overview of Dutch disasters and thus of their psychosocial effects on victims. The same can be said about disasters taking place in foreign countries. While this study focused mainly on disasters that have taken place in the Netherlands, perhaps lessons can be learned from how other countries deal with disasters and calamities and their victims.
Reference List


