Chapter 1

General introduction
Chapter 1

“To my mind, my father is not deceased, he was murdered. If someone asks me whether my father is deceased, I always say ‘no, my father was killed.’ He is dead, but not deceased.” ¹ (Ms S.)

This is a citation from a daughter whose father was murdered. She becomes angry when people ask her whether her father is deceased because for her, it does not capture the essence of the death cause. Her father is not deceased, he is murdered. This dissertation is about people who lost a loved one due to first degree murder, defined as the deliberate and premeditated killing of another human being, or due to second degree murder, defined as intentional killing, but without premeditation (hereafter called *homicide*, to capture both types of murder). These types of homicides differ from manslaughter, which is killing without intent, such as a drunken driver who causes an accident in which a passenger dies. He is legally responsible for the death because of his drunken behavior, but it is not his intention to kill someone. Crucial in homicidal loss is that the death was deliberately (and premeditatedly) caused by another person. In the Netherlands, on average between 140 and 150 individuals are murdered each year (Centraal Bureau voor de Statistiek, 2016; Leistra, 2015). While the victim experiences the direct consequences of the violence by losing his or her life, the bereaved parents, children, siblings, partner and friends of the victim are facing the loss on a daily basis. Based on the assumption that every victim leaves on average four close bereaved individuals behind, in the Netherlands between 560 and 600 individuals become confronted with the consequences of homicidal loss each year. While this number is relatively low when compared to other (violent) death causes, the consequences in terms of psychological adjustment may potentially be quite great. In homicidal loss, bereaved individuals are not only confronted with the loss, but also with the traumatic circumstances surrounding the loss, such as waiting for the death confirmation, and an absent or violated body of the victim (Kristensen, Weisaeth, & Heir, 2012). Also, bereaved individuals have to deal with investigation by the police, the criminal justice system, media attention, and the search for the perpetrator (Amick-McMullan, Kilpatrick, Veronen, & Smith, 1989; Kaltman & Bonanno, 2003; Parkes, 1993; Riches & Dawson, 1998; Rynearson, 1994).

Homicidal loss differs from traumatic experiences without the loss of a person, such as rape, and from loss without traumatic circumstances, such as loss due to illness². Other types of losses in which bereavement and trauma are intertwined are war related loss, mass murder and school shootings. Situations in which trauma and loss coexist are a risk factor for delayed recovery (Rynearson & McCreery, 1993). Violent loss, defined as accidents, suicides and homicides (Kristensen et al., 2012), is generally associated with more mental health problems than non-violent loss, such as Complicated Grief (CG), depression, and Posttraumatic Stress-Disorder (PTSD) (Boelen, De Keijser, & Smid, 2015; Breslau et al., 1998; Burke & Neimeyer, 2013; Kristensen et al., 2012; Van Ameringen, Mancini, Patterson, & Boyle, 2008). Before

¹ The citations used in this dissertation came from participants of the study, which gave oral and written consent for usage.
² The distinction made here is simplified. A traumatic experience such as rape may lead to other types of losses, such as loss of innocence or loss of faith in other people. Also, natural deaths may be felt as traumatic by the bereaved individual.
presenting a schematic model of variables central to this dissertation, the following sections will first focus on two types of mental health problems, namely CG and PTSD. Only these two problems are elaborated about because these are the two main outcome measures in the studies included in this dissertation.

1. Psychopathology

1.1 Complicated Grief

Most individuals will experience the loss of a loved one once or multiple times during his or her life. Adults, children, or mentally impaired people are all basically able to grieve. The majority of bereaved individuals, about 80-90%, are able to deal with the loss, with or without social support from family members and friends. They have the capacity to trust others, engage in social activities, maintain a sense that life has meaning for them and also focus on other things than their loss (Prigerson, 2004). Bonanno refers to these bereaved individuals as resilient and being able to maintain a relatively stable and healthy level of psychological and physical functioning after a potentially disruptive event, such as the death of a loved one or a violent or life-threatening situation (Bonanno, 2004). For a small percentage of people, about 10% of the bereaved population, there seems to be no natural limitation to grief (Shear et al., 2011; Zisook & Shear, 2009). These people show ongoing intense yearning and searching for the deceased, report constant disbelief about the death, and cannot accept the loss (Prigerson et al., 1995). They might experience intrusive thoughts or recurrent images related to the death, and want to avoid painful reminders of the loss (Zisook & Shear, 2009). Alternatively, they might become overly occupied with the deceased, for example by nourishing personal objects, or over-involved in activities which remind them about the deceased, such as daily visits to the cemetery (Smid et al., 2015; Zisook & Shear, 2009). When these symptoms are accompanied with impairment in work, health and social functioning, they are referred to as complicated grief (CG) (Currier, Holland, & Neimeyer, 2006; Kersting, Brähler, Glaesmer, & Wagner, 2011; Zisook et al., 2010).

CG is also termed prolonged grief disorder (Boelen, Van de Schoot, Van den Hout, De Keijser, & Van den Bout, 2010), complicated grief disorder (Maercker, & Znoj, 2010), pathological grief (Jacobs, 1993), traumatic grief (Jacobs, Mazure, & Prigerson, 2000), and Persistent Complex Bereavement Disorder (PCBD, American Psychiatric Association, 2013). The difference between uncomplicated grief and complicated grief lies not so much in different symptomatology, but in impairment in daily functioning and in the duration of symptoms, namely longer than would be expected according to social norms (Shear, 2015). There is much debate about the duration of symptoms before one can speak of CG, and the inclusion of CG in the Diagnostic and Statistical Manual of Mental Disorders (DSM) has been a topic of a wide discussion. In the DSM-5, where CG is termed Persistent Complex Bereavement Disorder (PCBD), the condition is included in section 3 of the manual, as a condition which needs further study (APA, 2013). In the mid-1990s, a panel of experts in the
field of trauma and bereavement was formed to discuss the criteria for CG. The panel proposed that the presence of certain symptoms of grief for at least six months was appropriate to distinguish complicated from non-complicated grief (Boelen, 2005). Later, they proposed that two month was sufficient (Boelen, 2005). Now, the duration of proposed criteria for PCBD in the DMS-5 of 12 months has been established (APA, 2013). As can be seen, the terminology, as well as the duration of symptoms, is still under debate. In the studies included in this dissertation, the Inventory of Complicated Grief (Prigerson et al., 1995) is used to assess CG symptoms, although it is noticed that the symptoms for CG and of PCBD are not totally identical.

Prevalence rates of CG vary greatly according to the death cause and time since loss, such as 10-20% following natural loss (Prigerson, 2004), 30% following violence during military operations (2.5 years post-loss) (Ginzburg, Geron, & Solomon, 2002), 38% following war-related violence in Kosovo (seven years post-loss) (Morina, Rudari, Bleichhardt, & Prigerson, 2010), and 12% following the Tsunami in South-East Asia (six years post-loss) (Kristensen, Weisaeth, Hussain, & Heir, 2015). There are various risk factors for CG, such as female gender, age of the deceased, previous loss experiences, anticipation of the death, pre-existing mental health difficulties, close kinship, a history of difficult early relationships, alcohol or drug abuse, and lack of social support (Shear, 2015; Zisook & Shear, 2009, see for a review Kristensen et al., 2012 and Lobb et al., 2010). CG is more likely after a sudden death by violent means than after non-violent loss (Currier et al, 2006; Shear, 2015; Simon, 2013; Parkes, 1993). It is therefore particular that CG following homicidal loss is subject of few studies, and empirical, well-designed studies examining CG following homicidal loss are currently lacking (Rynearson, Schut, & Stroebe, 2013). Only one study with prevalence rates of CG following homicidal loss was found (55%) (McDevitt-Murphy, Neimeyer, Burke, Williams, & Lawson, 2012). As further elaborated in Chapter 2, generalizability of the findings was limited because of the overrepresentation of women, ethnicity of the participants and limited time since loss. Because prevalence rates following homicidal loss are largely unknown and there is to date no systematic review of studies about CG and PTSD following homicidal loss, a systematic review was conducted about psychopathology following homicidal loss (Chapter 2). Further, prevalence rates of CG and PTSD in a large sample of homicidally bereaved individuals were examined to gain more insight in the prevalence of psychopathology following homicidal loss (Chapter 3).

1.2 PTSD

Another response possibly elicited by homicidal loss is posttraumatic stress reaction (Burke, Neimeyer, & McDevitt-Murphy, 2010; Freedy, Resnick, Kilpatrick, Dansky, & Tidwell, 1994; Murphy, Johnson, Wu, Fan, & Lohan, 2003). Symptoms of Posttraumatic Stress-Disorder (PTSD) may occur after a traumatic event, such as rape, an accident and violence, and include four diagnostic clusters, namely intrusions, avoidance, negative alterations in cognitions and mood, and alternations in arousal and reactivity (APA, 2013). The estimated lifetime prevalence of PTSD in the general population of the US is 7.8% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995).
Prevalence rates of PTSD following a traumatic event vary widely according to the type of event, such as 20-38% following a natural disaster, 7-72% following terrorism, 4-39% following accidents, 14-28% following injury/disease, and 4-45% following military combat (See for a review Utzon-Frank et al., 2014).

In order to experience symptoms of PTSD, the traumatic event does not have to be experienced by the individual himself; also witnessing or hearing about the traumatic event, such as the violent death of a family member or friend, is also classified as potentially traumatic (APA, 2013). In the DSM-III-R and DSM-IV, it was already included that PTSD may follow an event experienced by others that was heard of, thus indirectly instead of directly (APA, 1987; Cougle, Kilpatrick, & Resnick, 2012). In general (thus not restricted to homicidal loss), it has been found that the probability of PTSD by means of direct exposure is higher than by means of indirect exposure (11.1 % vs. 7.3%, Breslau & Kessler, 2001; Cougle et al., 2012). However, the death of a family member due to homicidal loss was found to be associated with risk of PTSD and levels of distress similar to the prevalence of PTSD following direct exposure to an assault or other traumatic event (Cougle et al., 2012). It is with the inclusion of the ‘indirect exposure’ qualifier that homicidal loss which is indirectly learned about was defined as possibly leading to PTSD symptoms (Cougle et al., 2012). Rynearson and McCreery (1993) described for example homicidally bereaved individuals who experienced disturbing intrusive images of the death scene without actually witnessing the homicide. While the relation between homicidal loss and PTSD symptoms has been found in some studies, the amount of studies examining this relation is scarce. The few empirical studies which have been conducted are firm in their conclusions about the traumatic impact of homicide: “there is ample evidence that loss due to homicide is associated with post-traumatic stress phenomena” (Freeman, Shaffer, & Smith, 1996; p. 337). As it is further elaborated in Chapter 2, the firmness of these conclusions seems somewhat premature, given the fact that PTSD prevalence following homicidal loss differs substantially between studies, and studies differ in methodology, time since loss and sample types (Amick-McMullan, Kilpatrick, & Resnick, 1991; Freedy et al., 1994; McDevitt-Murphy et al., 2012; Zinzow, Rheingold, Byczkiewicz, Sauders, & Kilpatrick, 2011). Also, a number of studies combines homicide, suicide and accidents (Murphy et al., 1999; Murphy et al., 2003) and the generalizability of the prevalence rates is limited due to differences between studies (as reported in Chapter 2). Because of these reasons, the prevalence rate of PTSD in a large sample of homicidally bereaved individuals is reported in Chapter 3.

2. How can the difference in psychopathology following violent and non-violent loss be explained?

Homicide is a particular type of violent loss. As noted before, research has shown that violent loss leads to more severe emotional distress in bereaved individuals than non-violent loss (Boelen et al., 2015; Boelen, 2015; Kristensen et al., 2012; Pearlman,
Wortman, Feuer, Farber, & Rando, 2014). Although intuitively this may not seem surprising, it may be questioned how this difference can be explained. Violent loss, such as accidents, suicides or homicides, but also disaster and war-related deaths, can be characterized by their violent nature and, most often, by their suddenness and unexpectedness (Kristensen et al., 2012). Studies have indicated that the violent nature of the loss (Kaltman & Bonanno, 2003), and the suddenness of the loss (Boelen, 2015; Valdimarsdottir, Helgason, Fürst, Adolfsson, & Steineck, 2004) is predictive of PTSD symptoms. Following disasters and war-related losses, bereaved individuals may have to wait a significant period of time until the death can be confirmed. This may also be true for relatives of people who are missing and in some cases for homicidally bereaved individuals. A lack of official confirmation of the death may lead to uncertainty about the death, fantasies about what has happened, and denial of the death or a delay of a grieving process (Kristensen et al., 2012). However, research has yet to establish whether lack of confirmation of the death is associated with elevated levels of bereavement-related psychopathology. Another stressor after violent loss may be the interplay between grief and posttraumatic stress reactions. Following suicide, accidents or homicide, bereaved individuals may re-experience finding the body, envisage pictures of the crime scene, or of the violated body of the victim. As described previously in the paragraph about PTSD, such symptoms may also be present if the bereaved individual learned about the loss indirectly (Kristensen et al., 2012).

Another explanation for the difference in psychopathology between violent and non-violent loss has been found in making sense of the death. Violent loss is more difficult to make sense of than natural loss, because violent loss may undermine and change fundamental beliefs and assumptions people have about themselves, others and the world around them (Currier et al., 2006; Janoff-Bulman, 1992). This is also known as ‘The theory of shattered assumptions’ (Janoff-Bulman, 1992). Rynearson (1988) refers to this by saying: “the manner of dying determines the meaning of death” (p. 214). The inability to find a reasonable sense of understanding of the loss over time is frequently accompanied by grief complications (Currier, et al., 2006; Janoff-Bulman, 1989; Mancini, Prati, & Bonnano, 2011), greater distress (Davis, Wortman, Lehman & Silver, 2000), and traumatic symptoms (Janoff-Bulman, 1992). Homicidal loss may be difficult to make sense of because of its intentional and violent nature, which may leave bereaved individuals with a sense of injustice and assumptions of unfairness about people and the world in general (Currier et al., 2006; Mancini et al., 2011).

3. A cognitive behavioral model of CG: Factors associated with problematic coping

The psychological mechanisms following (violent) loss may also be viewed from the perspective of a cognitive behavioral model of CG (Boelen, Van den Hout, & Van den Bout, 2006). This model is not primarily developed to explain the difference
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in psychopathology between violent and non-violent loss, but to examine the psychological mechanisms which are present in individuals with CG following violent or non-violent loss. Based on this model, it is thought that three processes are crucial in the development and maintenance of CG: 1) problems with the integration of the event in autobiographical memory, 2) maladaptive thoughts, and 3) avoidance behavior. This model is related to cognitive-behavioral models for PTSD (e.g., Bower & Sivers, 1998; Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000; Ehlers & Steil, 1995; Foa & Kozak, 1986; Foa & Rothbaum, 1998; Horowitz, 1997; Janoff-Bulman, 1992).

The first process which is thought to be important in the development and maintenance of CG regards problems with the integration of the event in autobiographical memory. In individuals with CG, numerous stimuli unintentionally trigger memories about the deceased person, making everything a possible reminder of the loss. Rather than making the loss feel more ‘real’, bereaved individuals continue to be shocked by the loss (Boelen et al., 2006). Individuals bereaved by homicidal loss are very likely to be unwillingly and unexpectedly confronted with reminders of the loss. Fictional movies, documentaries, news bulletins about homicidal cases on television, and games about violence are popular among the general public, but may be a reminder of their violent loss to homicidally bereaved individuals. Through police investigations and ongoing lawsuits, individuals keep being confronted with cause of death, and with the perpetrator who took their loved one. Such lawsuits may last for several years. Thereby, the separation of the deceased one may be more difficult to accept. Also, homicidal loss is rare when compared to natural losses, making the loss possibly feel unreal to the bereaved individual (’it feels like a movie’), and more difficult to integrate within their existing knowledge about the world and the trustworthiness of other people (’If I cannot trust my father since he killed my mother, who can I trust then?’).

The second process which is thought to be important in the development and maintenance of CG concerns negative cognitions and misbeliefs people might have about their own grief reactions. In general, people have expectations and ideas about their role in life and their purpose. When people adjust to their loss, they are able to adjust their beliefs to the new situation, in which their loved one is dead. For some people, adapting their beliefs to a new situation remains difficult. They may experience negative beliefs, such as ‘the future is worthless’, and ‘I do not have confidence in the future’. When these cognitions become dominant, people may retreat from activities which foster functioning, such as social meetings, going to work and setting new goals (Boelen et al., 2006). Since homicidal loss is culpable, bereaved individuals are likely to blame the perpetrator. They may also blame bystanders who were present during the homicide, or they may blame themselves (’This would not have happened if I have warned my daughter for her boyfriend’). Another type of maladaptive thoughts that might be more frequent after homicidal loss than after other death causes, are thoughts of revenge. Individuals might become preoccupied with vengeful thoughts about the offender (’I want him to feel the same amount of pain he caused us), and think they only can ‘move forward’ when the perpetrator
has been punished. These types of thoughts might be especially difficult to cope with in cases where punishment is out of the question, or when victim and perpetrator are part of the same family. Because of the violent nature of the loss, homicidally bereaved individuals may be more inclined to develop negative cognitions than bereaved individuals whose loved one died by a non-violent death cause: negative cognitions about the world (‘the world is no safe place anymore’) and others (‘I can trust nobody’) are easily triggered when the victim died by the intentional and violent act of another human being.

Third, people with CG are inclined to use avoidance strategies to avoid the pain connected to the loss. They assume to lose control or go mad when they are confronted with feelings of mourning. Therefore, people, places and objects who remind the bereaved individual of the victim are avoided (Boelen et al., 2006). This type of avoidance is referred to as anxious avoidance, avoiding the reality of the loss. People who are inclined to avoid the reality of the loss may also do seemingly the opposite: they constantly think, talk or ruminate about the deceased or the death cause, and cherish or cultivate personal objects. While it might seem that these bereaved individuals confront rather than avoid the loss, this may function as a way to maintain a strong connection with the deceased and avoid having to admit to the loss and the fact that the deceased is gone (Boelen et al., 2006). Following homicidal loss, bereaved individuals may ruminate more about issues related to the death cause, about questions such as: who is the perpetrator? Why did he murder our loved one? Will he be arrested and punished? Did the victim feel any pain? And could I have warned the victim, or could I have done something else to prevent his/her death? Following homicidal loss, these types of questions are generally unanswered, which might lead to rumination in the bereaved individual.

Another type of avoidance is referred to as depressive avoidance, which means refraining from social activities that could foster adjustment (Boelen & Van den Bout, 2010). Bereaved individuals may withdraw from social activities, because they believe that these activities are pointless when encountered without the deceased. Thereby, they miss the opportunity to engage in new social contacts, and they do not challenge negative thoughts and cognitions (Boelen & Van den Bout, 2010). Depressive and anxious avoidance were both associated with symptom-levels of CG and PTSD and were, together with negative cognitions, found to be unique mediators of the association between violent loss and elevated levels of PTSD (Boelen et al., 2015; Boelen & Eisma, 2015).

The tendency to depressive avoidance among homicidally bereaved individuals might also be related to the context in which the loss happened. Bereavement following non-violent loss is in most cases a personal and private experience. Homicidal loss on the other hand may often take place in a public context. Television and newspapers often report about homicidal cases, and the search for and punishment of the perpetrator is often a subject of news reports. As a consequence, the grief experience is no longer a private event of the family and friends who are directly related to the victim, but has turned into a public event. Every social encounter, even with strangers, might lead to questions or conversations about the
loss, making homicidally bereaved individuals inclined (possibly more than following natural loss) to avoid social encounters. Homicidally bereaved individuals might also be inclined to avoid social situations because of (fear for) negative or stigmatizing social attitudes from other individuals. About 13% of the homicides in the Netherlands occur in a criminal environment. In these types of homicides, the perpetrator or the victim (or both) are involved in criminal activities, such as drug trafficking or liquidations (Nieuwbeerta & Leistra, 2007). These types of losses might lead to shame in bereaved individuals or to negative or stigmatizing social attitudes from other individuals (Armour, 2006). The fear of such (perceived) stigmatizing reactions may make homicidally bereaved individuals more inclined to avoid social situations and encounters with other people, thereby limiting involvement in activities which could foster adjustment.

To conclude, in terms of the cognitive behavioral model put forward by Boelen et al. (2006), three processes are crucial in the development and maintenance of CG, namely insufficient integration of the loss, negative cognitions, and avoidance behavior. Research has found that negative cognitions and avoidance are associated with CG and PTSD (Boelen et al., 2015; Boelen, De Keijser, Van den Hout, & Van den Bout, 2011). However, it is to date unknown if the assumptions of the model of Boelen et al., (2006) are also true following homicidal loss. Therefore, it is tested whether negative cognitions and avoidance are associated with CG and PTSD symptoms in homicidally bereaved individuals. Measures of anger and revenge are added, because those are likely to be elicited following homicidal loss and it was deemed relevant to enhance understanding of cognitive-behavioral variables possibly contributing to these latter phenomena (Chapter 5). Before turning to a treatment for homicidally bereaved individuals (reported in Chapter 6), the role of revenge following homicidal loss is further elaborated about.

4. Revenge

Vengeful thoughts are likely to occur following homicidal loss. Revenge can be defined as ‘an aggressive, often violent, response to intentional harm that has been inflicted on the avengers and their families’ (Stuckless, 1996, p. 21). Revenge may be associated with negative mental health. In victims of severe interpersonal violence, such as sexual violence and physical assault, revenge was found to be associated with more intense rumination, less life satisfaction, and PTSD (Kunst, 2011; Orth, Montada, & Maercker, 2006). A more forgiving response to the person who has wronged you on the other hand, has been found to be associated with increased mental and physical health (Schultz, Tallman, & Altmaier, 2010). As further elaborated in Chapter 4, revenge may block grief processing following homicidal loss, by maintaining an external, ruminative focus on why and how the loss occurred, that interferes with the elaboration and processing of the reality of the loss and the feelings associated with it. The preoccupation with revenge could be associated with avoidance of acceptance of the death and with CG (Rynearson, 1984) and PTSD (Ehlers & Clark, 2000).
One of the key components of revenge is the attribution of responsibility to the offender (Cota-Mckinley, Woody, & Bell, 2001; Orth, 2004). This is relevant in homicidal loss, since the perpetrator killed the victim premeditatedly and intentionally, making him responsible for the death. Studies found that bereaved individuals experienced more revenge following homicidal loss than following loss by suicide or accidents (Baddeley et al., 2015) and in situations someone could be blamed for the death (Stuckless, 1996; Weinberg, 1994). While these studies seem to give some indication that revenge is possibly elicited by homicidal loss, scientific literature regarding revenge and coping following homicidal loss is limited. The few studies described previously have methodological limitations, such as small numbers of homicidally bereaved individuals and a lack of a measure of CG. Since the association between revenge and coping following homicidal loss is largely unclear, two studies about revenge were conducted (Chapter 4 and 5). In Chapter 4, the association between revenge and CG and PTSD was examined. Two types of revenge were distinguished, namely dispositional revenge, defined as referring to someone’s general attitude toward revenge, and situational revenge, referring to levels of revenge experienced following a specific incident and directed at a specific perpetrator. The two types of revenge were regarded as independent variables and as a possible predictor of psychopathology. In Chapter 5, the association between negative cognitions and avoidance on the one hand, and CG, PTSD, anger and revenge on the other hand was examined. The relation between avoidance behavior and symptom-levels of CG and PTSD was found prospectively and longitudinally in several studies, but primarily in samples of bereaved individuals following natural loss, and not following homicidal loss (Boelen, Van den Hout, & Van den Bout, 2013). In the study presented in Chapter 5, only situational revenge was included, and not dispositional revenge. In this study, revenge was used as an outcome variable. In sum, the association between revenge and psychopathology was first examined (Chapter 4, revenge as independent variable), followed by a further examination of the association between revenge and negative cognitions and avoidance (Chapter 5, revenge as dependent variable). This is also depicted in Figure 1, which is presented after the next paragraph.

In Chapter 4 and 5, the general term thoughts and feelings of revenge was used, although it is noticed that revenge has also been referred to as a cognition, emotion, response or behavior (it goes too far to provide a complete conceptualisation of revenge, see for further reading Grobbink, Derksen, and Van Marle, 2015 who wrote a review about revenge). When the difference between dispositional and situational revenge is relevant, these terms were used.

5. Treatment with CBT and EMDR for homicidally bereaved individuals

As it is reported in more detail in Chapter 2 and 3, a significant number of homicidally bereaved individuals might experience symptoms of CG and PTSD.
In Chapter 6, a treatment study with Cognitive Behavioral Therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR) to reduce self-rated CG and PTSD symptoms is described. The rationale of an intervention with CBT for bereaved individuals was based on the cognitive behavioral model of CG as described previously. Various interventions have been developed for individuals who experience a distorted grieving process, whereby CBT was found to be the most effective treatment for reducing psychological complaints in bereaved individuals (Currier, Holland, & Neimeyer, 2010). The effectiveness of CBT to reduce CG and PTSD following non-violent and violent loss has been reported in several studies (Asukai, Tsuruta, & Saito, 2011; Boelen, De Keijser, Van den Hout, & Van den Bout, 2007; Bryant et al., 2014; Maccallum & Bryant, 2011; Rosner, Pfoh, Kotoucová, & Hagl, 2014; Wagner, Knaevelsrud, & Maercker, 2006). However, in all these studies, different modes of violent death were grouped together, and only a small number of participants were homicidally bereaved individuals. As reported in more detail in Chapter 6, the few studies that have been conducted in samples of homicidally bereaved individuals were not controlled studies and were merely observational in nature (Parkes, 1993; Rynearson, 1994), making the effectiveness of CBT following homicidal loss largely unclear.

The treatment reported in Chapter 6 did not only include CBT, but also EMDR. The latter was found to be effective for emotional distress following different types of trauma (Bisson & Andrew, 2007), and is also suggested to be effective in situations where trauma and loss are intertwined (Solomon & Rando, 2007; Solomon & Shapiro, 1997). In traumatic loss, such as homicide, there may be obstacles which can interfere with recovery and adjustment. Examples are memories related to the traumatic death cause and feelings of responsibility for the event, a lack of control, and personal vulnerability and safety (Solomon & Shapiro, 1997). Applying EMDR is hypothesized to be helpful in alleviating CG symptoms by desensitizing traumatic memories and the associated distressing thoughts and painful feelings. Thereby, processing of information held and dysfunctionally stored is accelerated. By reprocessing the mental representations of traumatic material with the use of EMDR, neutral or more pleasant memories associated with the loved one may appear, which may foster positive functioning (Solomon & Rando, 2007; Solomon & Shapiro, 1997). As it can be read in Chapter 6, the effectiveness of EMDR as a treatment for CG has only been demonstrated in case examples (Solomon & Rando, 2007) and in a sample of 50 bereaved individuals following loss due to different violent death causes (Sprang, 2001). This gives some preliminary indication that EMDR could be helpful treating CG although the effectiveness of EMDR after grief following homicidal loss has yet to be established. In Chapter 6, a Randomized Controlled Trial (RCT) was presented, in which the effectiveness of a combined treatment of CBT and EMDR is examined to reduce self-rated CG and self-rated PTSD symptoms. Due to the comorbidity of CG and PTSD in homicidally bereaved individuals (McDevitt-Murphy et al., 2012; Shear, Frank, Houck, & Reynolds, 2005), a combination of CBT and EMDR seems to have added value over only one of the two treatments, because then both trauma and loss-symptoms are addressed (Shahani & Trish, 2006).
In Figure 1, a schematic model of the variables likely to be important in adjustment to homicidal loss is presented. In sum, negative cognitions and avoidance behavior could hinder adaption to the loss. Revenge (dispositional and situational revenge) was added to this model, because thoughts and feelings of revenge are likely to be elicited by homicidal loss, and may complicate the grieving process. By means of the different studies included in this dissertation, the role of negative cognitions, avoidance behavior, and revenge, as well as the treatment effect of EMDR and CBT on CG and PTSD following homicidal loss was examined.

Figure 1. Schematic model of variables central to this dissertation.
6. The importance of examining the impact of homicidal loss

Examining psychopathology following homicidal loss is deemed important because of several reasons. Studies about this topic are needed because the psychological impact of homicidal loss is often assumed by scientists, the bereaved community, and the society, but has not yet been established by empirically sound studies. For bereaved individuals, scientists and clinicians working with homicidally bereaved individuals, it may be important to know whether such claims are based upon empirical evidence. If these claims are not based upon such evidence, they may serve as a reinforcement for pathological behavior: repeatedly getting the message that adjustment after homicidal loss is difficult or perhaps impossible could strengthen non adaptive cognitions and even block adaptive behavioral patterns. In theory, this may increase the subjective psychological pain or pathological behavior and could prolong the time in which the bereaved individual suffer from psychological complaints. If these claims do indeed reflect objective reality, this information can serve as a base for the development of clinical interventions for this population, such as more individualized or specialized treatments. This latter is consistent with sounds of a support group for parents of murdered children in the Netherlands, which called for more specialist treatments to cope with their experience of loss. Clinically, insight in the variables which are likely to play a role in symptomatology may provide input for the development of a treatment for this population. On an individual level, knowledge about the psychological mechanisms following homicidal loss may be used to inform homicidally bereaved individuals by means of psycho-education what they may expect following this type of loss. Further, if the intervention is proven effective in reducing symptoms of CG and PTSD, help-seeking homicidally bereaved individuals can make an informed choice about the type of therapy they can use.

7. Research questions and chapter outline

Based on the previous outline, this dissertation includes the following research questions:
1. What is the nature and prevalence of emotional symptoms following homicidal loss (Chapter 2)?
2. What is the prevalence of CG and PTSD in homicidally bereaved individuals, and which socio-demographic and perpetrator-related factors are correlated with CG and PTSD (Chapter 3)?
3. What is the association between dispositional and situational revenge on the one hand, and CG, PTSD and positive functioning in homicidally bereaved individuals on the other hand, and which socio-demographic and perpetrator related factors are associated with dispositional and situational revenge (Chapter 4)?
4. What is the association between negative cognitions and avoidance behavior on
the one hand and CG, PTSD, anger and revenge on the other hand in homicidally bereaved individuals (Chapter 5)?

5. What is the effectiveness of a short intervention with CBT and EMDR on self-rated CG and self-rated PTSD symptoms in homicidally bereaved individuals, and which variables moderate the treatment (Chapter 6)?

The research questions will be answered in the different chapters included in this dissertation.

In Chapter 1, a general introduction is provided about the variables central to this dissertation.

In Chapter 2, a systematic review of the literature on the nature and prevalence of emotional symptoms following homicidal bereavement is provided. A systematic review may give insight in the type of psychopathology experienced following homicidal loss, their prevalence, and the relative importance of the different disorders, *i.e.*, which disorders are more commonly experienced following homicidal loss or are more studied than other disorders.

In Chapter 3, the prevalence of CG and PTSD in a sample of 312 partners, family members and friends of homicide victims is examined. Also, socio demographic and perpetrator related correlates of CG and PTSD will be described. Socio-demographic correlates that are studied are sex and age of the participant, time since loss and kinship between the bereaved individual and the victim. These variables are often studied following non-violent loss or in studies where different violent death causes were grouped together, but not frequently following homicidal loss. Perpetrator-related variables, such as type of relation between the perpetrator and the bereaved individual and the legal status of the perpetrator also have not been examined previously following homicidal loss.

In Chapter 4, a cross-sectional study is described in which two types of revenge (*namely general revenge and situational revenge*) and PTSD, CG and positive functioning among 331 spouses and family members of homicide victims are examined. The study provides insight into the association between revenge and long-term adjustment to homicidal loss. While the association between revenge and PTSD has been found in victims of severe violence other than homicidal loss (Kunst, 2011; Orth et al., 2006), and the association between revenge and CG has been theorized about (Salloum & Rynearson, 2006), it has not yet been examined empirically in a large sample of homicidally bereaved individuals.

In Chapter 5, a cross-sectional study is presented about the associations between negative cognitions and avoidance behavior on the one hand, and CG, PTSD, anger and revenge on the other hand. The study was conducted among 331 spouses and family members of homicide victims. Anger and revenge may be important consequences of homicidal loss. The relation between avoidance behavior and symptom levels of CG and PTSD was found prospectively and longitudinally in several studies, but primarily in samples of bereaved individuals following natural loss (Boelen et al., 2013). The studies included only small samples following violent loss, which were also grouped together (Boelen et al., 2015; Boelen, & Eisma, 2015; Boelen, Reijntjes, Djelantik, & Smid, 2016; Boelen, & Van
The relative importance of negative cognitions and avoidance behavior with CG and PTSD has not yet been examined following homicidal loss.

In Chapter 6, the results of a RCT are presented, in which a combined intervention of EMDR and CBT was used to reduce self-rated CG and PTSD in individuals bereaved by homicide. The treatment effect was expected to be moderated by sex of the participant, time since loss and the recruitment style (i.e., divided into support organisations for homicidally bereaved individuals, by the governmental organization Victim help or via the internet). Examination of these moderator variables was deemed important because the results may tell us for which subgroup of people the treatment is more or less effective and for whom the treatment may require adjustment.

In Chapter 7, a general discussion is provided. The main findings from the preceding chapters are put in a broader context, methodological difficulties are discussed, and clinical implications and recommendations for future research are provided.

It should be noted that this dissertation is about psychological adjustment following homicidal loss, but that individuals whose loved one died due to manslaughter, such as a drunk driver (in Dutch dood door schuld) were not included. Bereaved individuals of homicides committed in a collective context, such as wars and genocide, were also not included. When referring to the offender, the term ‘he’ is used, where also ‘she’ could be read. Further, the term Complicated Grief was used through this dissertation because the term Persistent Complex Bereavement Disorder (PCBD) had not been used when the studies in this dissertation began, and the term is consistent with the scale that was used (the Inventory of Complicated Grief, Prigerson et al., 1995). Although PCBD is now widely used, the term Complicated Grief was used for the sake of consistency.
References


Chapter 1


